

Our Mission: The College of Lake County is a comprehensive community college delivering high quality, accessible learning opportunities to advance student success and strengthen the diverse communities we serve.



# Welcome to the College of Lake County

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CLC is committed to maintaining an environment free from harassment and discrimination for everyone and does not discriminate on the basis of race, sex, national origin, religion, sexual orientation, gender identity or expression, or any other protected status. Responsibility for coordination of compliance efforts and receipt of inquiries has been delegated to the Dean of Student Life, 19351 W. Washington St., Grayslake, IL 60030, (847) 543-2288.

This catalog is in effect for the academic year 2017-18 and is accurate as of May 2017. The information is subject to change within that period. Any changes will be noted on the college's website at [www.clcillinois.edu](http://www.clcillinois.edu).

## 2017 Fall Semester

August 14-19	Faculty Development Week (Registration / Advisement Ongoing)
August 21	Classes Begin
September 4-5	Labor Day Recess (no classes)
October 17	Mid-Semester
October 30	Priority Registration for Spring Begins (for current students only)
November 2	Open Registration for Spring Semester Begins
November 22-26	Thanksgiving Recess (no classes)
December 9-15	Final Exams
December 15	Semester Ends

## 2018 Spring Semester

January 8-13	Faculty Development Week (Registration / Advisement Ongoing)
January 15	Martin Luther King Jr. Day (no classes)
January 16	Classes Begin
March 5	Priority Registration for Summer and Fall Begins (for current students only)
March 8	Open Registration for Summer and Fall Begins and Continues through August
March 12	Mid-Semester
March 19-25	Spring Vacation (no classes)
May 5-11	Final Exams
May 11	Semester Ends
May 12	Commencement

## 2018 Intersession

May 15	Classes Begin
May 28	Memorial Day Recess (no classes)
June 1	End of Session

## 2018 Summer Session

June 4	Classes Begin
July 1	Mid-Session
July 4	Independence Day Holiday (no classes)
July 27	End of Session

## 2018 Fall Semester

August 13-17	Faculty Development Week (Registration / Advisement Ongoing)
August 20	Classes Begin
September 3-4	Labor Day Recess (no classes)
October 16	Mid-Semester
October 29	Priority Registration for Spring Begins (for current students only)
November 1	Open Registration for Spring Semester Begins
November 21-25	Thanksgiving Recess (no classes)
December 8-14	Final Exams
December 14	Semester Ends

## 2019 Spring Semester

January 14-19	Faculty Development Week (Registration / Advisement Ongoing)
January 21	Martin Luther King Jr. Day (no classes)
January 22	Classes Begin
March 4	Priority Registration for Summer and Fall Begins (for current students only)
March 7	Open Registration for Summer and Fall Begins and Continues through August
March 11	Mid-Semester
March 25-31	Spring Vacation (no classes)
May 11-17	Final Exams
May 17	Semester Ends
May 18	Commencement

## 2019 Intersession

May 21	Classes Begin
May 27	Memorial Day Recess (no classes)
June 7	End of Session

## 2019 Summer Session

June 10	Classes Begin
June 30	Mid-Session
July 4	Independence Day Holiday (no classes)
August 2	End of Session

## CLC Mission and Goals

Established by the citizens of Lake County within a framework of the Illinois Master Plan for Higher Education, the College of Lake County is a comprehensive community college dedicated primarily to meeting the post-secondary educational needs of individuals within District 532. The College of Lake County is accredited by the Higher Learning Commission, 230 S. LaSalle St., Suite 7-500, Chicago, IL 60604-1413, (312) 263-0456 or (800) 621-7440.

### Mission

The College of Lake County is a comprehensive community college that delivers high quality, accessible learning opportunities to advance student success and strengthen the diverse communities we serve.

### Vision

The College of Lake County strives to be an innovative educational institution offering exceptional learning experiences and to be widely recognized for student success, business and community partnerships and for the achievements of faculty, staff and alumni.

### Values

We hold these values to be the cornerstone to fulfilling the College's mission

1. **Learning:** Compels us to create an atmosphere of academic excellence and life-long learning by pursuing the best ideas, approaches, and methods.
2. **Integrity:** Requires us to work together honestly and respectfully.
3. **Quality:** Commits us to ongoing continuous improvement and excellence.
4. **Service:** Calls on us to serve as a force for improving the educational, economic, social and cultural quality of life of our students and the community.
5. **Accountability:** Guides us to be responsible and exercise good stewardship.
6. **Diversity:** Drives us to embrace and respect the uniqueness of students, employees and community members.

### Goals and Objectives

The College of Lake County sets forth the following goals and objectives for Fiscal Year 2017-2018:

1. **Advance student learning, success and completion.**  
The college will help students identify and work toward their educational goals and prepare them to participate in the workforce.
2. **Maximize educational opportunity and equity in student outcomes.**  
The college will enhance, develop and promote educational opportunities and work to increase enrollment and external partnerships.
3. **Promote excellence in the areas of Diversity, Global Engagement, Sustainability, and Wellness as strengths within the college and Lake County community.**  
The college will strive to build an inclusive community that recognizes, values and respects people of all cultures and ways of life while cultivating social justice, global citizenship and environmental responsibility.
4. **Enable a culture of innovation, excellence and continuous improvement.**  
The college will promote employee engagement to create and sustain a culture of high performance, intellectual growth, collaboration and innovation that supports continuous improvement of academic programs and college processes.

## College of Lake County Learning Outcomes

The goal of the CLC Learning Outcomes is to prepare students for life-long learning, to maintain high academic standards and to advance student success in future academic work and careers. The skills represented in the learning outcomes are developed by completing coursework across the curriculum and by participating in student organizations and clubs.

### **Critical Thinking**

Identify issues, define vital questions and analyze evidence that lead to well-reasoned judgments and conclusions.

### **Oral Communication**

Communicate ideas verbally that are well-organized, appropriate to audience and purpose and use an effective delivery.

### **Writing**

Compose well-organized and well-supported texts that are appropriate to audience and purpose and that, when applicable, demonstrate the ability to integrate the ideas of others.

### **Reading**

Comprehend a variety of texts in order to enhance understanding of content and make inferences that lead to new insights and ideas.

### **Information Literacy**

Find, analyze and use information in order to answer questions, develop new questions, and create knowledge through ethical participation in learning communities.

### **Quantitative Literacy**

Compute, reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations.

### **Technological Competency**

Select and apply contemporary forms of technology to solve problems, compile information or produce a product.

### **Diversity and Social Justice**

Engage with and learn from ideas, belief and behaviors different from one's own. Identify concrete ways to contribute to a fair and just world.

## Programs of Study and Educational Options

The College of Lake County offers students a variety of educational options. Many come to CLC looking for education that will lead immediately to a satisfying career. Other students come to gain college credit so that they may transfer to a four-year college or university. Still others come to develop a specific job skill, to improve their ability to speak and write the English language or to continue the process of life-long learning. Some students come to the college undecided about their futures. To meet the needs of all of these students, CLC offers a variety of programs of study.

### Transfer Education

Students who come to the College of Lake County in order to earn credits that are transferable to a four-year college or university will find a wide range of programs designed to prepare them for work at the junior level. These programs lead either to an Associate in Arts (A.A.), an Associate in Science (A.S.), an Associate in Engineering Science (A.E.S.), an Associate in Fine Arts (A.F.A.) or an Associate in Arts in Teaching (A.A.T.) degree at CLC. Classes in these programs are comparable to those offered in the first two years at a four-year institution.

Students are urged to select the college where they would like to transfer and design their program to meet the requirements of that institution. For specific information on which courses are transferable to a given college or university, students should consult the Counseling Center.

Requirements for the Associate in Arts, Associate in Science, the Associate in Engineering Science, Associate in Fine Arts and Associate in Arts in Teaching degrees are listed on pages 50-120.

### Career Education

Many students are working to gain skills and knowledge in a field in order to find a job in that career area when they leave CLC. Some of these students take only a few career courses to reinforce and improve skills they already possess. Other career students enroll in a two-year program that leads to an Associate in Applied Science degree (A.A.S.) or a shorter sequence that leads to a certificate. See page 121 for more information.

Many CLC career students are recent high school graduates. Some have recently completed a high school equivalency program (GED). Many others are re-educating themselves to keep up with changes in the workplace. Trained and skilled individuals are needed to meet increasingly exacting qualifications in many fields. Career programs prepare

students to step directly into this fast-moving age of technological change. The college currently offers over 40 specialized career programs, many of which are available both day and evening.

The college also offers programs to meet the needs of students whose first language is not English, or students who have their GED or high school diploma, but have not yet met College Reading and Writing Readiness standards. The Carl Perkins Supported Career Programs offers academic support in the areas of Administrative Office Systems, Automotive and HVAC. Students in these certificate programs may receive assistance in the form of in-class tutoring, additional academic support classes and career assistance upon certificate completion. For more information call (847) 543-2672.

In addition to the career programs offered within the CLC district, there are several joint educational agreements in effect that allow CLC students to attend programs at other institutions that are not offered at CLC at greatly reduced costs.

For more information about joint agreements see page 45 or contact the Welcome and One Stop Center at (847) 543-2061.

### Developmental Education

CLC is committed to helping students develop the skills that are needed for college-level courses and programs. Because of this commitment, the college requires that all new students meet the language and mathematics requirements specified as prerequisites for college-level courses.

Students who need to review or develop their language or mathematics skills are encouraged to enroll in one or more of the skills enhancement courses until they develop college-level skills in reading, writing and/or mathematics. Students who need work in all three areas will be limited to courses that do not require college-level reading, writing and mathematics.

Students for whom English is their second language and have not achieved language proficiency are required to enroll in academic ESL classes such as ELI 100, 101, 102, 103, 104, 105, 106, 107 and 108. Placement in a specific course depends on ESL placement test scores (COMPASS) and recommendations of faculty.

### Testing

One way students may show College Reading and Writing Readiness and Basic Algebra Readiness is by taking the Academic Proficiency Test, administered by the Testing Center. For information on other ways to show College Reading and Writing Readiness and Basic Algebra Readiness, see page 374. The Academic Proficiency Test includes a Language Skills test and a Mathematics test. This test is administered at all three CLC Testing Centers. Please call for further information:

Grayslake Campus, Grayslake: (847) 543-2076  
 Lakeshore Campus, Waukegan: (847) 543-2120  
 Southlake Campus, Vernon Hills: (847) 543-6544

### Courses

Instruction in mathematics, writing and reading is provided by specific courses in the various divisions and modules in the Tutoring Centers. Students who have questions about courses in mathematics, writing or reading should contact a counselor, advisor or the appropriate division office:

Engineering, Math and Physical Sciences:  
 Room T302, (847) 543-2044  
 Communication Arts, Humanities and Fine Arts:  
 Room B213, (847) 543-2040  
 Counseling Center: Room A124, (847) 543-2060

### Tutoring

Individual tutoring by trained professionals and by student peers is available at all three campuses.

The Tutoring Centers support writing across the curriculum. Help is available not only for all levels of English courses but also in relation to any course that has a writing component. Offering individual support for all levels of writing ability, peer and specialist tutors help students become more confident and more proficient writers by identifying their strengths and weaknesses.

The centers also provide tutoring in mathematics, science, accounting and computer skills. Tutors can assist students with math-related questions from other courses. Additional help is available through study groups, supplemental texts, workbooks, software and online resources. In addition, the Grayslake Tutoring Center offers a math computer lab.

### Coaching for Academic Success (CAS)

An academic coach is assigned to students enrolled in pre-college level mathematics and English courses designed to develop the skills needed for college-level work. Coaches follow up on academic alerts from instructors, provide intrusive academic support, connect students directly to resources and help students track their academic progress. Students are encouraged to connect with their academic coach for support. For more information, visit [www.clcillinois.edu/cas](http://www.clcillinois.edu/cas) or contact CAS in Room L123 or at (847) 543-2763.

## Adult Education

Adult Education classes are intended for people who live in Lake County. They are not appropriate for students with B1, B2, F1, F2, J1 or J2 visas, nor are they appropriate for short-term visitors to the U.S.

In general, students must be at least 18 years old in order to enroll in Adult Education classes. However, 16- and 17-year-olds may register with an official Secondary School Reference Form signed by their local high school authorized representative. U.S. high school graduates and 16-year-olds must meet additional eligibility requirements. New students must attend an orientation session before attending classes.

The Adult Basic Education, GED and ESL division provides several specific types of educational opportunities and is funded in part by grants from the federal government representing 32 percent of the total cost of the program.

### Adult Basic Education

Adult Basic Education (ABE) provides individualized and class instruction in reading, general language development, writing, mathematics and life skills. Students proceed at their own pace.

### Adult Secondary Education

Adult Secondary Education (ASE) classes prepare Lake County adults who have not completed high school to take a high school equivalency exam (GED, HiSET, or TASC). In addition to the high school equivalency exam, students must pass the Constitution Test before they are awarded a high school equivalency certificate. This exam and classes are offered in English and Spanish.

### Bridge Programs

Bridge Programs (BRGA) are offered for Adult Education students who are interested in pursuing a career in the healthcare, manufacturing or early childhood education field. The curriculum familiarizes students with the terminology, skills and standard practices of their field of interest. Students who enroll in BRGA are required to meet certain prerequisites such as qualifying for the program with their TABE placement test score.

### English as a Second Language

English as a Second Language (ESL) classes are for students whose primary language is not English. Speaking, listening, reading and writing skills are taught. Students may enroll at the beginning, intermediate or advanced level.

### Perkins Supported Career Training

Support classes are offered for ESL and ABE/ASE students with federal Perkins grants for the following career programs: Administrative Office Systems, Automotive Technology and HVAC Engineering Technology.

### **Non-Credit Opportunities**

#### **Workforce and Professional Development Institute: [www.clcillinois.edu/wpdi](http://www.clcillinois.edu/wpdi)**

The Workforce and Professional Development Institute (WPDI) offers a variety of programs designed to improve organizational performance and profitability and enhance professional skills. Organizations and employees in both the private and public sectors benefit from WPDI programs and services.

Through **Client Solutions**, training programs may be delivered for groups of employees to address specific skill gaps and organizational needs. Programs can be customized to an organization's specific objectives and can be delivered either onsite or at one of CLC's campuses. Training program topics include manufacturing and industrial technologies, managerial and supervisory skills, computer skills, basic skills development, English as a Second Language, business writing, presentation skills and workplace foreign languages. College credit courses can also be offered onsite to enhance employee development. Professional coaching and career coaching are also available for all levels of management and teams within the organization. For more information, contact Client Solutions at (847) 543-2615 or via email at [corporatetraining@clcillinois.edu](mailto:corporatetraining@clcillinois.edu).

Through **Professional Development (PD)**, individuals enroll in courses designed to help develop their career skills. With PD training programs, students will enhance their current workforce skills or learn new ones. A variety of training programs prepare individuals for licensure, license renewal or certification requirements of outside agencies or organizations. With the constantly changing work environment, gaining new skills or preparing for an alternative career is a smart strategy. The course selection includes computer skills, real estate licensure preparation, business skills, human resources, training for beverage and alcohol seller and servers (BASSET) and professional interpreting. Individuals can also learn vocational skills through programs like truck driver, forklift operator private investigation, private pilot ground school and home inspection training programs. PD also offers online training programs provided by several vendors. For more information, call (847) 543-2615 or email [professionalworkshops@clcillinois.edu](mailto:professionalworkshops@clcillinois.edu).

The **Healthcare and Nursing Continuing Education** courses provide opportunities to maintain, obtain or enter the healthcare profession or achieve career goals. Courses are for healthcare professionals who have been out of the nursing profession for a time and need to update their skills to obtain employment. Courses include Pharmacy Technician, CPR Basic and Refresher, CNA recertification. Veterinary Assistant and continuing education courses for massage therapists are also offered. For more information call (847) 543-2615 or email [professionalworkshops@clcillinois.edu](mailto:professionalworkshops@clcillinois.edu) or visit [www.clcillinois.edu/professional](http://www.clcillinois.edu/professional).

The **Illinois Small Business Development and International Trade Center (IL SBDC ITC)** at CLC has been working with businesses since 1985. Grant funded, the center provides expert business advice and counsel to Lake County businesses to grow domestically and globally. The center provides access to a wide array of resources from funding preparation, market selection, trade compliance, strategic planning and everything in between. Call to schedule an appointment with one of the expert advisors and take your business to the next level. Small business workshops are also available online and in class to provide skill growth and development. For more information or to schedule an appointment, call (847) 543-2033, email [illinoisSBDC@clcillinois.edu](mailto:illinoisSBDC@clcillinois.edu) or visit [www.clcillinois.edu/sbdc-itc](http://www.clcillinois.edu/sbdc-itc).

## Community Programming

Community Programming offers educational experiences for individuals to pursue passions, enjoy life and to stay safe through Personal Enrichment and Judicial Services areas.

**Personal Enrichment** offers non-credit programming in a pleasant, comfortable atmosphere for learners of all ages. Students can enjoy leisure, recreation and personal enrichment classes that enhance personal growth and expand individual experiences. Students can take a trip, learn to dance, improve physical fitness, relive history or appreciate the arts. Classes range from one-day workshops to semester-length courses. Students learn new skills, meet new people and develop new hobbies in a relaxed environment. Whatever the interest, offerings are available for the entire family. Visit [www.clcillinois.edu/personalenrichment](http://www.clcillinois.edu/personalenrichment).

### Gifted Children Classes (Grades 7-8)

To enroll in the Fast-Paced Program for gifted and talented children, students must achieve a SAT score of 530 or above for math and 260 or above for verbal.

### Youth Classes (Grades 1-12)

A variety of educational and recreational programs are offered for students in grades 1-12. Programs include academic enrichment in math, test prep, writing, STEM and the arts.

### Summer Youth Camps (Grades 1-12)

Camp Explore offers premium summer programs for youth including LEGO®, the arts, math, technology, STEM and ACT test prep.

## Discovery

The Discovery program for adult learners age 50-plus offers exciting and creative courses. Short-term classes are offered that cover a wide variety of topics including theatre, art and day trips and tours for fun or personal development. College instructors or community professionals facilitate most sessions. For more information call (847) 543-2615.

For more information on these programs, call Personal Enrichment at (847) 543-2615, visit [www.clcillinois.edu/personalenrichment](http://www.clcillinois.edu/personalenrichment) or email [cpeinfo@clcillinois.edu](mailto:cpeinfo@clcillinois.edu).

The **Judicial Services** department, in partnership with the 19<sup>th</sup> Judicial Circuit of Illinois, offers a variety of programs for the court system. The Defensive Driving Program, offered since 1991, allows motorists who have received a minor traffic violation in Lake County the option to take classes under court supervision. The classes are accredited by the National Safety Council and emphasize defensive driving techniques. The National Safety Council's program "Alive at 25" is also available for teen drivers. The Family Parenting Program is for parents with minor children who are seeking dissolution of marriage. The Live Victim Impact Panel is designed to affect the behavior and state of mind of those convicted of DUI and related offenses. The Volunteer Probation Support Program recruits, trains and assigns volunteers to work with adults and juveniles during probation periods, providing support, mentoring and supervision. For more information on these programs contact Judicial Services at (847) 543-2185 or visit [www.clcillinois.edu/judicial](http://www.clcillinois.edu/judicial).

### Philosophy Statement for the First-year Experience at the College of Lake County

We at CLC believe that the first-year experience is critically important in providing the foundation for a student's college success. The first-year experience occurs during the first half of a student's program of study.

Recognizing the unique challenges facing first-year students of all ages, the college community is determined to work with students to do whatever is necessary to help them reach their educational potential.

Staff, faculty and board members will do their part in:

1. Creating a safe and welcoming campus environment
2. Communicating clearly defined transition paths for career and transfer students
3. Providing high quality instruction and academic rigor
4. Engaging students in the learning process
5. Establishing positive mentoring and advising relationships with first-year students
6. Communicating college resources available to first-year students
7. Promoting inclusion and an appreciation for social and cultural diversity
8. Assisting students in becoming involved and integrated into the College of Lake County community
9. Listening to students and providing follow-up
10. Considering the unique characteristics, responsibilities and life experiences of community college students
11. Ensuring evaluation and improvement of the first-year experience

Students will do their part in:

1. Taking responsibility for their learning and education
2. Attending class and being prepared
3. Participating actively in the learning process
4. Communicating issues or concerns for early resolution
5. Seeking out resources provided by the college
6. Engaging diverse ideas and people with openness and mutual respect
7. Exploring opportunities for involvement in the College of Lake County community
8. Building relationships with faculty, staff and peers

### Admission Policy

CLC provides a wide range of learning opportunities to meet the various educational needs of students from diverse educational backgrounds. The college welcomes all who may benefit from its courses and programs of study. An individual will be admitted to the college by completing the Student Information Form found at [www.clcillinois.edu/apply](http://www.clcillinois.edu/apply). The college serves those who are high school graduates, others who are 18 years of age or older, and individuals under 18 years of age who meet established criteria.

Admission to the college does not guarantee entrance into all courses or programs of study. Entrance into specific programs may depend on other criteria such as age, evidence of language and mathematics skills and level of education. Students taking college-level courses must demonstrate college-level competency in language and mathematics. In addition, students are required to complete specified prerequisites prior to enrollment in certain courses.

The college reserves the right to limit enrollment because of space or budget restrictions, to establish selective admission requirements and to give preference to residents of Community College District #532.

Please visit [www.clcillinois.edu/apply](http://www.clcillinois.edu/apply) for a Student Admission Form. Specific requirements can be found on page 389.

### Admission to Associate in Arts, Associate in Science, Associate in Engineering Science, Associate in Fine Arts and Associate in Arts in Teaching

To qualify for unconditional admission to these programs, students must provide evidence that they have attained a certain level of knowledge in the arts and sciences through previous learning. Evidence may be provided by observing the following procedures:

1. Successfully complete the admission requirements. See pages 389-391 for more information.
2. Submit either a high school transcript or a student profile report from the American College Testing (ACT) Program showing the achievement listed below:
  - A. High school transcript showing successful completion of the following:
    - **Four years of English** emphasizing written and oral communication and literature.
    - **Three years of social science** emphasizing history and government.
    - **Three years of mathematics** including introductory through advanced algebra, geometry, trigonometry or fundamentals of computer programming.
    - **Three years of science** including laboratory science.
    - **Two years of electives** from any combination of foreign language, music, vocational education or art.Up to three of the 15 required units of course work may be redistributed by deducting no more than one unit from each of the categories of social science, mathematics, science and electives and completing those units in one of the other categories.
  - B. ACT Student Profile Report showing the completion of the high school course distribution requirements listed above or standard scores of 21 or higher for English, reading, mathematics and science reasoning.
  - C. SAT Report showing scores of 500 or higher for verbal and mathematics.

The Office of Admissions will consider exceptions to these procedures on an individual basis for students who have completed 30 or more semester hours of course work with grades of C or better from an accredited college or university, those with an associate degree from an accredited college or university and those who present equivalent course work or test scores.

Students who are unable to provide any of the forms of information indicated above will be conditionally admitted to the degree program and will be required to complete all of the following prescribed College of Lake County courses:

English:	ENG 121 English Composition I
Speech:	CMM 121 Fundamentals of Speech
Mathematics:	Any mathematics course required for the A.A., A.A.T., A.S., A.E.S. or A.F.A. degree in this catalog
Science:	Any lab science course from the list required for an A.A., A.A.T., A.S., A.E.S. or A.F.A. degree in this catalog
Social Sciences:	Any social science course required for an A.A., A.A.T., A.S., A.E.S. or A.F.A. degree in this catalog
Humanities:	ENG 122 English Composition II or any humanities course required for an A.A., A.A.T., A.S., A.E.S. or A.F.A. degree in this catalog

See pages 50-120 for courses required for degrees.

Please see the section on advising on page 27 of this catalog for further information.

## Admission to Limited Enrollment Health Career Programs

*See addendum for corrections to this section.*

Health career programs are open to a limited number of students.

Computed Tomography, Dental Hygiene, Health Information Technology, Magnetic Resonance Imaging, Medical Imaging, Registered Nursing and Surgical Technology students must complete a special screening procedure. Preference is given to legal residents of Community College District 532, including other community college districts with which CLC has an appropriate joint educational agreement, prior to considering out-of-district, out-of-state or international student applicants.

Please see the section on Associate in Applied Science Programs of Study on pages 121-226 of this catalog for further information including selective admission requirements.

## Admission for Students Under the Age of 18 or Currently Attending High School

A student under the age of 18 or currently attending high school must submit a CLC Secondary School Reference form signed by a parent and an official of the secondary school of current or last attendance. To apply, submit the following credentials to the Office of Admissions.

1. Completed CLC Student Admission Form, which can be found at [www.clcillinois.edu/apply](http://www.clcillinois.edu/apply).
2. Completed CLC Secondary School Reference form signed by a school representative and parent. Home schooled students will have the form signed by the parent or home school representative.

## Admission for Students Age 16-17 Enrolling in Adult Education Classes Only

Students who are 16-17 years of age and are enrolling in adult education classes only should submit the following credentials to the Office of Admissions:

1. Completed CLC Student Admission Form, which can be found at [www.clcillinois.edu/apply](http://www.clcillinois.edu/apply).
2. Completed CLC Secondary School Reference form signed by a school representative and parent. Home schooled students will have the form signed by the parent or home school representative.

## Dual Enrollment, Dual Credit, Articulated Credit

The dual enrollment and dual credit programs at CLC offer high school students opportunities to earn college credit prior to graduating from high school. Dual enrollment allows high school students to enroll in CLC's regularly scheduled classes. Dual credit courses are offered under agreements between CLC and specific local high schools. Students who participate in dual enrollment or dual credit must meet CLC's academic proficiencies as identified in the college catalog. Students who are concurrently enrolled in high school (public, private or homeschool) are not eligible for federal Title IV funds.

Articulated Credit is awarded for high school courses under agreements between CLC and area high schools. Articulated credit posts with a grade of T on students' CLC transcripts and is not included in students' GPAs. Taking an articulated credit course allows students to complete CLC degrees or certificates more quickly, but the courses will likely not be accepted for transfer to other colleges. Students that earn a B or better in an articulated credit course have up to three years after completing the course to obtain credit for it.

## Admission and New Student Information

High school students should check with their high school counseling office to see if their high school participates in dual credit or articulated credit and to see what courses are available. For additional information, contact the College Readiness and Dual Credit department at (847) 543-2030.

### Admission for Students Under the Age of 16

A student under 16 years of age must be judged by both the high school and the College of Lake County to possess both exceptionally high academic ability and maturity to handle the discipline and personal skills required for successful completion of college work.

A student less than 16 years of age is required to submit all of the credentials outlined below to the Office of Admissions in order to enroll in credit courses:

1. Official school transcript(s) showing successful completion of the most advanced course offerings from the high school in the subject area in which the student wishes to enroll at CLC  
**AND**  
A letter of recommendation from the high school department outlining the student's intended course or study at CLC.
- Home-schooled students should submit the following credentials to the Office of Admissions: A letter from the home educator listing completed curricula  
**AND**  
A letter of recommendation from the home educator outlining the student's intended course of student at CLC.
2. Completed CLC Student Admission Form which can be found at [www.clcillinois.edu/apply](http://www.clcillinois.edu/apply).
3. Completed Secondary School Reference form for students less than 16 years of age.
4. Middle school students must provide a letter from their district high school confirming that the high school cannot academically accommodate the student's needs and that the educational level needed exceeds the high school level.
5. All students must submit independent documentation of exceptional student ability through a standardized test. Acceptable standardized tests are listed on the Secondary School Reference form.

In addition to providing items listed above, students must meet all course prerequisites prior to the CLC division dean's consideration.

### Admission of International Students

International students are defined as any individual admitted into the U.S. on an F-1 student visa or issued the Form I-20 Certificate of Eligibility approved for study at CLC.

International students must be at least 17 years old and have completed the equivalent of an American high school education (12 years of formal education).

International students must enroll in a minimum of 12 credit hours each semester.

Application deadlines are: July 1 for fall semester, November 1 for spring semester and April 1 for summer session (transfer students only).

To apply, the following must be submitted:

- Completed International Student Application
- Official, certified, English translated copy of secondary school record, indicating completion
- Credit evaluation of college/university transcript for transfer, if applicable
- Evidence of sufficient financial support, including original bank letter and affidavit of support, as necessary
- Copy of passport
- A TOEFL exam is not required for English language training. Students who submit an official minimum score of TOEFL 71 Internet based or IELTS 6.0 Academic Format will qualify for regular academic classes.
- Completed International Student Transfer In Form, if transferring from another U.S. institution

For further information about admission requirements, contact the international recruiter at (847) 543-2399.

### How to Enroll at CLC: Steps for New Credit Students

#### Step 1

##### Complete a Student Admission Form.

You may complete the form online at [www.clcillinois.edu/apply](http://www.clcillinois.edu/apply). CLC will process the form within one business day, however, it may take up to 10 business days before you receive your official acceptance letter in the mail. Visit [www.clcillinois.edu/admission](http://www.clcillinois.edu/admission) or call (847) 543-2090 for information about requirements for students under age 18 and for admission to academic programs with additional requirements.

## Step 2

### Learn your CLC myLogin and set up your account

When your application has been processed, you will be given a CLC myLogin username and temporary password as part of the admission process. If you provided an email address on your application your username and password will be emailed to you. All new students will also receive an official admission letter with their login information via U.S. Mail. Your username and password will give you access to the myCLC Portal, including myStudentCenter, your source for registration information, class search, adding and dropping classes, making payment, viewing your class schedule, grades, transcript and many other features. Once you have your username and temporary password, you can set up your account at [myclc.clcillinois.edu](http://myclc.clcillinois.edu).

## Step 3

### Demonstrate that you meet proficiencies and prerequisites

CLC has established language and math (basic algebra readiness) proficiency requirements. These proficiencies are basic requirements for college-level courses. Details on how to meet these requirements are on page 390. You may be able to demonstrate proficiencies by receiving credit for prior learning (see page 41.) Additionally, some courses, such as college-level math, may have other prerequisites. The prerequisites for each course are included with the course listings in class schedules and the college catalog.

Have your documentation for proficiencies and prerequisites sent to the Office of Registrar and Records, 19351 W. Washington St., Grayslake, IL 60030. Or use fax (847-543-3061) or email (to [registrar@clcillinois.edu](mailto:registrar@clcillinois.edu)). For questions about proficiencies or prerequisites, call (847) 543-2061. For information about taking CLC placement tests, call the Testing Center at (847) 543-2076.

## Step 4

### Apply for financial aid and scholarships

If you are concerned about paying for college, apply for financial aid. CLC offers a complete package of financial aid options (state and federal grants, scholarships, loans and work-study). We encourage students to apply, even if they think they may not be eligible. Many factors go into determining financial aid eligibility, so don't assume you won't qualify. For information, contact the Welcome and One Stop Center in Room B114 at the Grayslake Campus, call (847) 543-2062 or visit [www.clcillinois.edu/financialaid](http://www.clcillinois.edu/financialaid). CLC's federal financial code is 007694.

## Step 5

### Attend a New Student Orientation (NSO) Session

If you completed high school within the last two years and have not attended any other college or university, you are **required** to attend an in-person NSO session, which includes an academic planning meeting with an academic advisor, a meeting with a financial aid representative and class registration assistance. Complete steps 1 through 4, and then register for an in-person NSO at [www.clcillinois.edu/nso](http://www.clcillinois.edu/nso).

If you graduated from high school more than two years ago, it is **recommended** that you complete the online NSO, which can be found at [www.clcillinois.edu/nso](http://www.clcillinois.edu/nso). Complete steps 1 through 4, and then meet with an academic advisor or counselor for assistance with course selection and registration. For information on meeting with an advisor or counselor, call (847) 543-2060.

## Step 6

### Complete the Registration Process

If you did not register during a New Student Orientation, use this catalog to select your classes. Register using the **student portal** ("myCLC" at [www.clcillinois.edu](http://www.clcillinois.edu)). If you need personal assistance, come to the Welcome and One Stop Center, Room B114, Grayslake Campus, the Student Services office at the Lakeshore Campus or the Campus and Student Support Center in Room V130 at the Southlake Campus.

## Step 7

### Important Revisions!

*Please read.*

#### Pay Tuition and Fees by the Due Date

CLC enforces tuition payment deadlines, so it is important to make payment arrangements by your payment due date. You must pay in full or set up an installment payment plan. Financial aid students must set up an installment payment plan under the "deferred" option. The installment plan only goes into effect if your aid does not cover your full tuition and fee obligation. A new drop process is in effect. **Veterans:** Refer to the Veteran's Request for Certification Form for payment plan requirements, or contact Veteran Student Services at (847) 543-2018.

Visit [www.clcillinois.edu/payment](http://www.clcillinois.edu/payment) for details on drop dates and payment options. For more information about tuition payment, call (847) 543-2085. For information about financial aid, call (847) 543-2062.

## Admission and New Student Information

### Step 8

#### Get your textbooks

CLC has a bookstore on each campus, with the Grayslake Campus stocking books for all classes. Ordering online at [clcbkst.com](http://clcbkst.com) is the best way to find out pricing and availability. Orders can be picked up at any campus or shipped to your home. When buying in store, please print the Course Material List from myStudentCenter to order. Currently, over 350 titles can be rented. Information can be found on the CLC Bookstore website or by calling (847) 543-2086.

**Printed Admission Forms are available at all three CLC campuses.** If you have any questions about the application process, contact Enrollment Services at [info@clcillinois.edu](mailto:info@clcillinois.edu) or call (847) 543-2090.

#### Admission Information for Non-U.S. Citizens

If you are not a U.S. citizen and have questions about attending the college, contact Kimy Lopez at (847) 543-2380.

## Steps to Graduate

### Graduation Planning

Counselors, faculty and academic advisors help students determine if they are meeting or have met the graduation requirements to earn a degree or certificate. Students may contact the Counseling, Advising and Transfer Center for more information at (847) 543-2060, or in Room A124 on the Grayslake Campus.

1. Meet with an appropriate advising professional to make sure you are meeting the requirements for the catalog term you are following.
2. If you have satisfied all the degree or certificate requirements, complete a Petition to Graduate online at [www.clcillinois.edu/petition](http://www.clcillinois.edu/petition). The deadline for students graduating in the fall is October 1, spring semester is February 15 and summer session is July 1.
3. You will receive the results of the evaluation of your petition approximately four to six weeks after the petition deadline for the term you have designated as completing your requirements.
4. Diplomas or transcripts cannot be issued if there are any outstanding bills to the college.

Diplomas are mailed out approximately four weeks after the end of the term you have graduated. Diplomas will be sent via USPS to the address on file. Make sure to verify your current address is on file prior to graduation. Duplicate diplomas can be purchased for \$15 per diploma. To order a duplicate diploma, go to [www.clcillinois.edu/studentforms](http://www.clcillinois.edu/studentforms) and complete the Duplicate Diploma Request Form.

A commencement ceremony is held annually in the month of May for summer/fall graduates and spring/summer candidates. To participate in the commencement ceremony, students should submit a Petition to Graduate by the spring petition deadline of February 15. This includes students planning to graduate Summer Session. Information about the commencement ceremony can be found at [www.clcillinois.edu/commencement](http://www.clcillinois.edu/commencement).

## Transcripts

You may request an official transcript of your CLC academic record online through myStudentCenter or by going to [www.clcillinois.edu/transcripts](http://www.clcillinois.edu/transcripts). There is a \$10 fee per CLC Official transcript request.

Electronic Official transcripts will be sent almost instantly. Paper Official transcripts will be mailed within 24 hours. If you have an outstanding financial obligation to the college, your transcript will not be released until the obligation has been cleared.

A one-time waiver of official transcript fees is available to eligible students. To be eligible to receive this waiver, students must be currently enrolled or have been enrolled in the prior academic (fall or spring) term. Students must also meet financial need criteria. For more information, visit [www.clcillinois.edu/transcripts](http://www.clcillinois.edu/transcripts).

If you would like to pick up your transcript order instead of having it mailed, you may do so in the Welcome and One Stop Center, B114, Grayslake Campus during normal business hours. You must present a photo ID in order to have the transcript released. If someone is picking up the transcript on your behalf, you must include that person's name on your transcript request and that person must also present a photo ID when picking up your transcript. It is important to note that since it takes time to process your transcript request, you are advised to call the Welcome and One Stop Center to make sure the transcript is available before arriving to pick it up.

Unofficial college transcripts are free of charge and students are encouraged to review and use unofficial transcripts as often as needed. Unofficial college transcripts are available anytime through myStudentCenter. Ordering official transcripts should only be done when unofficial transcripts will not suffice. Official transcripts are usually only needed at the final step of admissions, transferring credits to a four-year college or university and after acceptance of new employment.

## Tuition and Fees

Tuition and fees are subject to change through actions of the CLC Board of Trustees or changes in the calculation of out-of-district fees in accordance with the state formula. Regular tuition and fees effective for Fall 2017 are as follows:

<b>In-District</b>	
Tuition	\$115.00
Technology Fee	\$5.00
Instructional Equipment Fee	\$3.00
Capital Fee	\$5.95
Student Activity Fee	\$3.65
Student Success Initiative Fee	\$4.50
JLC Theatre Fee	\$.50
Operating Fund Fee	\$.40
Total Tuition and Fees	\$138.00

Tuition and fees for non-credit courses (courses that do not lead to a state-approved degree or certificate) cover the cost of instruction. No state or local tax monies are used to support these courses. Out-of-district and out-of-state tuition is determined on a semesterly basis. Please refer to the current class schedule for this information.

The College of Lake County reserves the right to assign “variable tuition” for some high-cost programs. Variable tuition rates may vary by program and will generally include additional tuition costs for individual courses within selected career programs. Programs with variable tuition rates will be noted within the course schedule.

## Student Residency Status

Students are classified according to residency status at the time of admission to the college for purposes of tuition assessment and enrollment.

### Proof of Residency

Evidence of district residency shall be based on ownership and/or occupancy of a dwelling in Community College District #532 and may be verified by displaying one of the following:

- Illinois driver’s license or ID card issued by Illinois Secretary of State Office
- Illinois voter ID card

OR

By displaying two of the following, which must display the student’s name and current address:

- lease
- mortgage or home purchase contract
- auto registration

- tax bill
- paycheck stub
- official mail of current bill statements such as cell phone, utility, credit card, auto insurance

## Residents of the College District

Students who are at least 18 years of age and who have occupied a dwelling within Community College District #532 for at least 30 days prior to enrolling at CLC are considered “in-district.” There are some communities within Lake County that CLC only serves a portion of its residents. If you reside on a community college border, your property tax bill or voter registration card will identify your community college.

## Residents of Illinois, Out-of-District Students

An out-of-district student is one who resides in Illinois but is not a resident of Community College District #532 as defined above. Lake County Illinois residents living within the Barrington public high school district are classified as out-of-district Illinois resident students.

## Out-of-State Residents

An out-of-state resident is one who has not lived within Illinois for at least 30 days prior to the beginning of the semester, or has declared his/her permanent residence to be outside the state of Illinois.

## Special Tuition Categories

The following categories have special tuition rates based upon their particular status.

### Senior Citizen Tuition

All in-district residents who are 60 years of age or older at the time of registration may enroll in credit courses offered by the college at one-half the regular tuition rate with all other fees remaining unchanged. Vocational credit courses (1.6 vocational credit) offered by Professional Development also qualify for the one-half tuition discount with all other fees remaining unchanged. The senior citizen waiver does not apply to Personal Enrichment classes.

All residents of the college district who are 65 years of age or older at the time of registration and who qualify financially according to Illinois Statute may enroll in credit courses (Professional Development and Personal Enrichment courses are not included) offered by the college without paying tuition or activity fees. Applications for the Senior Citizen Tuition Waiver are available in the Welcome and One Stop Center, Room B114, Grayslake Campus or online at [www.clcillinois.edu/faforms](http://www.clcillinois.edu/faforms).

## Financial Information

### Business Educational Service Agreement

Students who live outside of the CLC district and are currently employed full time (35 or more hours per week) by an entity located in the college's district may enroll at CLC under the Business Educational Service Agreement and pay the current in-district tuition rate, including prevailing comprehensive fee, regardless of their place of residence (proof of employment is required). For more information, contact the Welcome and One Stop Center at (847) 543-2061.

### In-District Military Personnel Tuition

Military personnel who are citizens of the United States and who are on extended active duty in one of the uniformed services of the U.S. and who are stationed and present in Community College District #532 in connection with that service, will receive the current in-district tuition rate including the prevailing activity fee by displaying a valid U.S. uniformed services identification card. Spouses and children of such military personnel are also eligible for the in-district tuition rate.

In compliance with state and federal law, any individual utilizing Chapter 33 or Chapter 30 VA Educational Benefits and/or Illinois Veterans Grant (IVG) will receive the current in-district tuition rate and prevailing comprehensive fees. To utilize the benefits(s), the individual must turn in a copy of their Certificate of Eligibility to the Veteran Student Services and make a formal request for certification by filling out the Veterans Request for Certification Form (electronic) in the student portal, MyStudentCenter.

### Cost to Attend CLC

Many full-time students want to know what it will cost to attend CLC for an entire year. To help answer that question, the college has developed two standardized budgets for the 2017-18 school year. There may be minor variations in these numbers due to tuition increases or changes in federal guidelines. For changes in these figures, visit the Budget for Attending CLC section on the CLC website.

Listed below are various fees and payment options for students.

#### Course Fees

Course fees are charged for some courses that incur extraordinary expenses for consumable supplies used by students or that have an unusual delivery system, e.g. private lessons.

#### Variable Tuition

Variable tuition is charged for some courses to offset the costs of these higher cost programs. Variable tuition is currently charged for courses in nursing, dental hygiene and massage therapy.

### Additional Fees

Additional student expenses may be incurred for specific classes or specialized instruction as indicated in the current semester schedule of classes.

### Commencement Fees

A commencement fee, which includes cap and gown purchase, is assessed to each student who participates in the commencement exercises. The college issues the diploma free of charge, and it is mailed approximately one month after the degree or certificate has been conferred.

### Method of Payment/Installment Plan

Students may pay for tuition and fees online using e-Check (automated debit to a personal checking or savings account) or by using a credit card (Visa, MasterCard, Discover or American Express). Students may also pay at the Welcome and One Stop Center, Room B114, Grayslake Campus using cash, check, money order or credit card. Checks and money orders may also be mailed to the Student Accounting Office. CLC offers an Installment Payment Plan for scheduled payments during the semester. For details on the payment plan see "Paying for College" at [www.clcillinois.edu/paying-for-college](http://www.clcillinois.edu/paying-for-college).

### Approximate Student Budget for Students Living with Parents

Tuition and Fees	\$3,864.00
Books and Supplies	1,260.00
Room and Board	2,072.00
Personal Expenses	1,568.00
Transportation	<u>\$1,904.00</u>
	\$10,668.00

### Approximate Student Budget for Students Not Living with Parents

Tuition and Fees	\$3,864.00
Books and Supplies	1,260.00
Room and Board	5,320.00
Personal Expenses	1,568.00
Transportation	<u>\$1,904.00</u>
	\$13,916.00

The costs listed above are based on attending two semesters (14 credit hours per semester) at in-district tuition rates. See also the out-of-district and out-of-state tuition rates to compute the tuition and fee components of your projected budget.

Use these budgets as a tool to calculate your educational expenses. Keep in mind that they are *average costs*. Your actual costs will vary according to your tuition rate, the number of credit hours you take, the books you will need to purchase/rent and your living arrangements.

## Attendance

The responsibility for attendance at all scheduled class and laboratory meetings rests with each individual student. When students are absent for reasons of illness or emergency, they are responsible for course work missed and should consult with the instructor before or at the next meeting of the class. Students who find it necessary to be absent from a class should inform the instructor in advance, if possible.

## Religious Observance

The college accommodates individual students' religious observances in regard to admissions, class attendance, scheduling of examinations and work. To request accommodation, students who expect to miss classes, examinations or other assignments as a consequence of their religious observance shall provide instructors with advance notice of the date or dates they will be absent. Absence from classes or examinations for religious observance does not relieve students from responsibility of any part of the course work required during the period of absence. Students who believe that they may not have been reasonably accommodated should contact the instructor of the class or the academic division dean. If the issue is not resolved at the department level, students may seek redress through the Addressing Students' Academic Concerns policy and the Student Rights and Responsibilities Policy.

## Withdrawal Policy

Important dates such as withdrawal deadlines are provided to you on your class schedule and many faculty list these dates on the course syllabus. These dates may differ from class to class. Please consult your class schedule for specific dates for your class. It is your responsibility to withdraw from a class that you no longer wish to attend.

Your transcript and the grade for the course may vary depending on the time at which you withdraw or request to withdraw from a course. The table below briefly outlines the actions you must take and the potential outcomes if you decide to withdraw from a course. If you are unsure of what to do, please speak with your instructor or contact an advisor or counselor.

<b>If you wish to withdraw:</b>	<b>You must:</b>	<b>What you will see on your transcript:</b>
Prior to the Refund Date (see your class schedule for date) (see page 21 for Refund Policy)	Withdraw from course via MyStudentCenter	Transcript will not reflect enrollment in the course
Between the Refund Date and the 75% point of the class (see your class schedule for date)	Withdraw from course via MyStudentCenter	A grade of W will be recorded on your transcript
Any time after the 75% point of the class but before completion of the final exam or assignment	Request withdrawal from your instructor and follow their direction.	If you are passing the course and obtain your instructor's approval: a grade of W will be recorded on your transcript
		If you are failing the course: a grade of FW will be recorded on your transcript (this has the same impact on your GPA as a grade of F)

Note: If you are still enrolled in a class after the midterm date for that course you will receive a grade for that course that will impact your GPA unless you take action to withdraw yourself.

### Registration

Students are responsible for officially registering in classes they attend. Registration for the Fall Semester begins the preceding March, registration for Spring Semester begins the preceding November. Summer registration begins in March.

Registration must be completed on or prior to the first day of class. Registration is available online. Students requiring assistance may contact the Welcome and One Stop Center at the Grayslake Campus, the Student Services Office at the Lakeshore Campus in Waukegan or the Campus and Student Support Center at the Southlake Campus in Vernon Hills.

### Late Registration

CLC strictly enforces its policy that students may not register for a class after it has begun. The policy states that the final day to enroll is midnight of the first day of the specific class. After that first day, late enrollment will be allowed only under extraordinary circumstances approved by the dean of the division for the class.

### Institutional Withdrawal for Non-Attendance

The college may administratively withdraw students who have never attended class, who stopped attending class without officially dropping or whose attendance is so sporadic that they would not be able to complete the course requirements. Students who are withdrawn by the institution on the midterm or final grade rosters will be assigned an appropriate withdrawal grade and a date of last attendance of the mid-term date of the semester. Students who are withdrawn by the institution will remain responsible for all tuition and fees charged for the class. The withdrawal grades are defined below:

- WN Withdrawal of a student who never attended. The WN grade has no impact on GPA.
- WS Withdrawal of a student who stopped attending. The WS grade has no impact on GPA.
- FW Withdrawal of a student who stopped attending and instructor deemed as failing. The FW grade will be included in the GPA.

Financial aid students who drop, withdraw or otherwise fail to complete all of their classes for a term will be subject to Title IV return of funds calculation. See pages 22-26 for more information on financial aid.

### Withdrawal of Veterans and Military Personnel

Veterans and military personnel who are deployed (including training at U.S. or overseas locations) or called to active duty may withdraw anytime during the semester in which they are enrolled and called to active duty. The date of the official notice of orders for deployment will serve as the date of withdrawal, and the withdrawal request must be submitted to the college by the end of the semester in which the withdrawal occurs. If the effective date occurs after the 75 percent point between the start and end of the class, a grade of W will be recorded. This policy also applies to the spouses of veterans and military personnel. Another option is to receive a grade of Incomplete. See page 44. For more information visit [www.clcillinois.edu/military](http://www.clcillinois.edu/military).

### Involuntary Withdrawal

Students who pose a direct threat of harm to self or others, or who substantially impede the lawful activities of other members of the college community may be involuntarily withdrawn by college administrators, pursuant to this Policy and to the Involuntary Withdrawal Procedures developed and adopted by the college. Students may be responsible for tuition and fees.

A student should not be subject to involuntary withdrawal when disciplinary, academic or other administrative responses are available. The procedures and specifications given in the Involuntary Withdrawal Procedures apply in those situations in which, in the judgment of the appropriate administrators, the response through the Student Rights and Responsibilities Policy and Procedures are insufficient. See Student Rights and Responsibilities Policy and Procedures.

Pursuant to the Family Educational Rights and Privacy Act (FERPA), 20 U.S.C. §1232g, the college reserves the right to disclose and release student records and personally identifiable information without consent to appropriate persons during a period of emergency if the information released is necessary to protect the health or safety of students or other individuals. (Board policy 403.1)

## Medical and Catastrophic Incident Withdrawal

The college, upon request and with appropriate documentation, may administratively withdraw a student due to **serious illness or related medical issues** that prohibit the student from completing his/her classes. Documentation will be required from a physician or licensed medical professional.

The college, upon request and with appropriate documentation, may administratively withdraw a student due to **catastrophic circumstances** that prohibit the student from completing his/her classes. Documentation will be required from a government agency, social service organization, first responder or similar entity.

The request for withdrawal and relevant documentation must be received no later than 60 days after the end of the semester for which the student is seeking a withdrawal. This policy will be administered by the Office of the Associate Vice President of Student Development.

## Reinstatement of Withdrawn Students

Students who withdraw from classes and subsequently request to be re-enrolled must present compelling reasons for reinstatement. Consult the Registrar's Office for procedures.

## Drop for Non-Payment

Students who do not pay in full or set up an installment payment plan for tuition and fees by their due date are subject to being dropped from all classes. The dates for the "drop for non-payment" process are publicized in the Schedule of Classes and on the website. The college will attempt to notify students who are dropped for non-payment, but it remains the student's responsibility to check enrollment status.

Students who are dropped by this process before the term starts are eligible to re-enroll if seats are available. They must pay by the new due date assigned. **Students may not attend classes if they are not officially enrolled.**

Students who are dropped by this process after the term has started may be reinstated. In order to be reinstated in the same classes, a student must request a "reinstatement" form from the course instructor. The student will be reinstated by bringing the form to the Welcome and One Stop Center.

## Refund Policy

Students are responsible for officially dropping classes they do not intend to complete. See pages 19-20 for Registration, Attendance and Withdrawal Policies. Tuition and fee refunds will be issued to eligible students who officially drop on or before the drop deadline for the class. The date of the drop is a student administration system assigned and recorded date and is determined by the successful completion of the drop transaction.

### Refund Schedule

#### Multiple-day Classes

Drop on or before start of class Drop before 15% of class days pass	100% refund
Drop after 15% of class days pass	No refund

#### One-day Classes

Drop the day before class	100% refund
Drop on or after the day of class	No refund

A full refund of tuition and fees is granted if the college cancels a class. When academically advisable, the administration may approve full or partial refunds of tuition or fees when students exchange one course for another.

When a student is unable to attend class due to uncontrollable and unforeseen circumstances such as extended hospitalization, a prorated tuition and fee refund may be made based upon a documented appeal. The appeal form may be obtained from the Welcome and One Stop Center.

## Financial Obligation

All unpaid tuition and fees after the final due date will be subject to the collection procedures of the college, including placing holds on future registration, withholding transcripts and lastly, referring the matter to a collection agency and the Illinois Debt Recovery Program.

## Financial Information

### Financial Aid Office

Grayslake Campus  
Room B114 (Welcome and One Stop Center)  
(847) 543-2062  
Federal School Code: 007694

The Financial Aid Office provides financial assistance to qualified students who, without such assistance, would be unable to attend. In order to honor this commitment, the college participates in a variety of federal, state and institutional programs. The different types of aid offered by the college are grants, loans, campus employment and scholarships.

### Financial Aid At-a-Glance

*See addendum for corrections to this section.*

Federal student aid is defined as financial assistance, is offered through the U.S. Department of Education and is available to those students enrolled in an eligible program at a school participating in federal student aid programs. School expenses such as tuition and fees, room and board, books, supplies and transportation are covered by federal student aid. Most federal aid is need-based. The three most common types of aid are grants, loans and federal work-study.

College of Lake County currently participates in the following Federal programs:

- Department of Defense Tuition Assistance
- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal Work Study Program (FWS)
- William D. Ford Federal Direct Loan (Direct Loan) Program
- Veterans Educational Benefits

### Who Gets Federal Student Aid?

Eligibility for most federal student aid programs is based on financial need, along with several other factors. The information a student provides on their Free Application for Federal Student Aid (FAFSA) determines his/her eligibility.

*Basic eligibility requirements indicate that students must:*

- Demonstrate financial need (for most programs)
- Be a U.S. citizen or eligible noncitizen (for most programs)
- Have a valid Social Security number (SSN).
- Register with the Selective Service if you are a male between the age of 18 and 25 (if you have not already), or obtain a status information letter from the Selective Services System. For more details visit [www.sss.gov](http://www.sss.gov).
- Work toward a degree or certificate in an eligible program
- Maintain satisfactory academic progress once in school.

- Show, by one of the following means, proper qualification to obtain a postsecondary education:
  - A high school diploma or a General Education Development (GED) certificate.
  - Complete a high school education, approved under state law, in a home school setting.
- Be enrolled at least half-time in an eligible program for Direct Loan Program Funds.
- Complete and sign a Free Applications for Federal Student Aid (FAFSA) stating that:
  - You are not in default on a federal student loan and do not owe money on a federal student grant and
  - You will use federal student aid only for educational purposes.
- Some students without a high school diploma or equivalent may be eligible for financial aid through special “ability to benefit” programs. Contact the Financial Aid Office for more information.

### Application Procedures

To apply for the FAFSA:

1. Collect all the documents needed to apply. This includes income tax returns, W-2 forms and other records of income. The full list is located at [www.fafsa.gov](http://www.fafsa.gov).
2. Complete the FAFSA between October 1, 2016 and June 30, 2018. There will be NO exceptions to the deadline date! Apply as soon as possible to meet school and state aid deadlines. The fastest and easiest way to apply is through [www.fafsa.gov](http://www.fafsa.gov).
3. Check your data. The Department of Education will send you your Student Aid Report (SAR), which is the result of your FAFSA. Your complete, correct SAR will contain your Expected Family Contribution (EFC). This number is used to determine your federal student aid eligibility.
4. Check your “To Do List.” If we need more information from you, we will contact you by mail or email and add items to your “To Do List.” Be sure to keep your address current with the Admissions Office and check your “To Do List” in myStudentCenter and student email account often for any updates. Students can access financial aid information, holds and checklists for financial aid processes via myStudentCenter. Failure to address holds and “to do” items by published deadlines can result in delays or ineligibility for aid.
5. Watch for an Award Notification. After a review of your SAR, we will prepare a letter outlining your aid eligibility.

*See addendum for corrections to this section.*

### Student Aid from the State of Illinois

The Illinois Student Assistance Commission (ISAC) provides financial aid for college education through the many gift assistance programs it administers. As an approved participant in any of the gift assistance programs administered by ISAC, postsecondary institutions may receive funds on behalf of eligible students.

Some specialized Illinois programs have separate applications. Detailed information about Illinois programs is available at [www.isac.org](http://www.isac.org). Illinois offers various financial aid programs based on merit, need and/or course of study. Many Illinois programs also require students to complete the FAFSA form.

College of Lake County currently participates in the following State programs:

- Monetary Award Program (MAP)
- Grant Programs for Dependents of Police/Fire/Correctional Officers
- Minority Teachers of Illinois (MIT) Scholarship Program
- Illinois Veterans Grant (IVG)
- Illinois National Guard (ING) Grant
- MIA/POW Scholarship

### How to Contact the Financial Aid Office

We are located in Room B114 at the Grayslake Campus in the Welcome and One Stop Center. Limited office hours are available at the Lakeshore and Southlake campuses.

#### Office Hours:

Grayslake: 7:30 a.m. to 7:30 p.m. Monday–Thursday  
 7:30 a.m. to 4:30 p.m. Friday  
 (847) 543-2062 phone  
 (847) 543-3062 fax

Lakeshore: (847) 543-2183

Southlake: (847) 543-6526

Please check the Financial Aid Office website at [www.clcillinois.edu/fao](http://www.clcillinois.edu/fao) for current hours.

## Procedures and Guidelines

### Census Date and Financial Aid Awards

Students who are eligible for financial aid and enroll at CLC receive an award notification which lists each type of financial aid they may receive. The award amount shown in the award notification is based on full-time enrollment in an eligible program. The actual amount of aid a student receives will be based on enrollment as of the financial aid census date. Please refer to the “Important Dates” web page [www.clcillinois.edu/fadates](http://www.clcillinois.edu/fadates) for the 2017-2018 Aid Year census dates. At census, the financial aid office will “freeze” student enrollment and adjust awards to the correct amount, based on actual aid eligible hours enrolled as of that time. If a student enrolls in late-starting classes after the student’s census date, those classes will not be eligible for financial aid. If the award of aid includes a class that has not yet started, the student will not be able to drop that class without contacting a financial aid specialist. The aid will be adjusted after the student is permitted to drop and they may be required to return a portion of the aid received.

**Late applicants** (awarded after the scheduled census date) will be processed during the remainder of the semester. The amount of the award will be based on enrollment in aid-eligible classes at the time the award is processed. Late awards will be disbursed during the next scheduled disbursement.

### Bookstore Charges

Students with anticipated credit balances on their student account, based on anticipated financial aid, will be allowed to charge books in advance of receiving financial aid in the CLC Bookstore. Check the Financial Aid website at [www.clcillinois.edu/fadates](http://www.clcillinois.edu/fadates) to determine the dates when book charges are accepted. Items charged in the Bookstore are paid when a student’s aid is disbursed.

### Disbursements

The Financial Aid Office will credit funds to student accounts according to a disbursement schedule set up each semester. Contact the Financial Aid Office or check the Financial Aid website at [www.clcillinois.edu/fadates](http://www.clcillinois.edu/fadates) for the dates on which we will release aid to student accounts.

### Federal Financial Aid Refund Policy (Title IV)

The Higher Education Amendments of 1998, Public Law 105-244, established how Title IV eligibility is determined when a student completely withdraws from school. The Department of Education required this provision be implemented by all schools starting in October 2000.

**These requirements do not dictate an institution’s refund policy as it relates to institutional charges incurred by the student.** Instead, the institution is required only to determine the amount of Title IV funds a student has earned as of the date he or she ceases enrollment prior to the

## Financial Information

planned completion date. The amount of Title IV funds earned by the student is based on the amount of time the student was enrolled; *it has no relationship to the student's incurred institutional charges.*

The 2011 Program Integrity Final Regulations define that a student is considered to have withdrawn when they do not complete all days **scheduled to complete** within a semester. Students enrolled in courses that do not span the entire semester are considered to have withdrawn if at the time of a withdrawn course(s) the student is not actively attending another course. Students enrolled in courses that do not span the entire semester are not considered to have withdrawn if at the time of withdrawing from the course(s) a written confirmation of intent to attend a future course(s) within the current semester is provided. The written confirmation of intent must be provided at the time of withdrawal.

The percentage of Title IV funds earned by a student who fully withdraws or is considered to have withdrawn is calculated by simply dividing the number of calendar days the student was enrolled by the number of calendar days the student was scheduled to attend during the semester. Students who are administratively withdrawn on the midterm or final grade rosters will have the class midterm date as their withdrawal date. For example: If a student was scheduled to attend 112 calendar days and withdrew on the 28th calendar day, they would be entitled to 25 percent of their Title IV funds (28 days attended/112 days in semester = 25 percent).

Schools are required to calculate the Return of Title IV Funds up through the 60 percent point of each semester or period the student was scheduled to attend. After the 60 percent point it is considered that the student has earned 100 percent of the Title IV funds disbursed. For more information on the college's withdrawal policies, please refer to the withdrawing from a class section on page 19.

Please feel free to contact the Financial Aid Office if you have any questions concerning this provision.

### Is Student a Withdrawal?

1. Did the student cease to attend before completing or fail to begin attendance in a course scheduled to attend?
  - If yes, go to question 2
  - If no, student not a withdrawal
2. When ceased to attend or failed to begin attendance in a scheduled course, was the student attending other courses?
  - If yes, student not a withdrawal
  - If no, go to question 3
3. Did the student confirm attendance in a later course within the current semester? (Course must begin within 45 days of withdrawal)
  - If no, student is a withdrawal.
  - If not a withdrawal, Pell recalculations may apply

### Ineligible Programs and Courses

**In order to be eligible to receive financial aid, a student must be enrolled in and actively pursuing a degree or certificate in an eligible program of study.** The college offers a wide range of associate degrees and certificates in eligible programs. The Associate in Arts, Associate in Science, Associate in Engineering Science, Associate in Fine Arts, Associate in Arts in Teaching, Associate in General Studies and most Associate in Applied Science degree programs are eligible. Most career certificate programs that require at least 16 credit hours to complete are eligible as well. (See a financial aid specialist for more information on eligibility.)

The college offers courses that meet a wide range of community need. Some courses are not eligible to be included in a financial aid award. Eligible courses are those that may be applied to completion of a degree or certificate, and/or developmental courses that are at a post high school level and prepare a student to take college-level classes. Courses that do not meet these criteria, non-credit courses, adult education courses as well as audited courses and some career courses are not eligible for financial aid. Only courses required to complete a student's program of study are eligible for financial aid. Special circumstances exist for students taking courses as prerequisites for program admission.

Students may only receive financial aid for up to 30 hours of developmental courses.

### Refund Checks

The Business Office will issue refunds by direct deposit (ACH) or by check to students based on credit balances within 14 days after their financial aid is credited to their student account. The Business Office will deduct tuition, fees and book charges from the student's account before refunding the remaining balance. Students can grant permission to use their aid refund to pay for other charges. Please contact the Financial Aid Office or check the Financial Aid website at [www.clcillinois.edu/fadates](http://www.clcillinois.edu/fadates) for the dates on which the Business Office generates student refunds.

### Academic Standards for Financial Aid Recipients (SAP)

Federal and state regulations require that students make satisfactory and measurable academic progress in their academic work in order to continue to be eligible for federal and state financial aid. At CLC the effective date that begins to measure satisfactory academic progress is the last date to drop a class with no record. This date is specific to each class and is at a point when 15 percent of the class length has passed. Excluded from these standards are courses in Adult Basic Education (ABE), English as a Second Language (ESL), General Education Development (GED), Vocational Skills Technology, Contract Training, Continuing Education and General Studies.

Satisfactory academic progress is measured in three distinct ways:

1. **Course Completion Rate** - Students must successfully complete at least 67 percent of all cumulative credit hours attempted at CLC. A successful completion is defined as earning a grade of D or better. Withdrawals (official or unofficial), incompletes, repeated classes and remedial courses are included in hours attempted. Students who do not comply with the requirement will be put on a one-semester warning, but will still receive financial aid for that semester. If 67 percent completion rate is not achieved by the end of that semester, they will be restricted and will no longer be eligible for financial aid until good standing is restored.
2. **Cumulative Grade Point Average (GPA)** - Students must have a 2.00 cumulative GPA to graduate from the college, and therefore, must maintain a 2.00 cumulative GPA. The GPA calculation for SAP includes developmental courses that are not included in the college's GPA calculation. Students who do not comply with the requirements will be put on a one-semester warning, but will still receive financial aid for that semester. If a 2.00 GPA is not achieved by the end of that semester, they will be restricted and will no longer be eligible for financial aid until good standing is restored.
3. **Program Time Frame to Complete Degree** - Students may pursue completion of a degree program on a full- or part-time basis, but the federal government requires that students make progress toward degree completion in a timely fashion. Progress toward completing a degree is measured not by calendar time, but by the total number of attempted hours allowed to complete a degree. Students must be able to complete their program of study within 150 percent of the hours required for the program.

Once a student's attempted hours reach 100 percent of the hours required for the program, the student will be placed on warning status. When the student's attempted hours reach 110 percent, the student is placed on restricted status and is not eligible for financial aid at the college until it is confirmed that the program can be completed within 150 percent of the hours required. Students who cannot complete their program of study within 150 percent of the hours required are placed on restricted status and are no longer eligible to receive aid at the college.

Note: A student with a program time frame calculation that moves from below 100 percent to 110 percent and greater within the same semester will be placed directly on restricted status and will not have a warning period.

For example, a student pursuing a 60 credit hour associate degree will need to complete the program within 90 attempted hours. The student will continue to be eligible for financial aid until he/she has attempted 66 credit hours (110 percent of the required number of hours for the degree), at which point confirmation is needed that the program can be completed within 150 percent of the required hours for continued eligibility. Degrees or certificates of varying lengths are prorated accordingly. Changes in majors and additional degrees include all attempted hours. Time frame calculation will be measured using the current catalog program requirements.

Included in the count of attempted hours is all attempted course work taken at CLC, transfer credit accepted from other institutions and any Advanced Placement or CLEP credit. All withdrawal grades, failing grades and incompletes, as well as repeated courses and remedial course work, are considered hours attempted and are included in the maximum time frame.

### Satisfactory, Warning and Restriction Status

A student will be considered in **satisfactory** status as long as he/she meets the requirements described above.

A student will be placed on **warning** status for failing to meet GPA and/or course completion rate requirements and/or program time frame falls between 100 percent and 110 percent as described above, but **will** be allowed to receive financial aid.

A student will be placed on **restricted** status for failing to meet requirements 1, 2 or 3 as described above and **will not** be eligible to receive financial aid.

### Appeal Process

Any student placed on Satisfactory Academic Progress (SAP) restricted status has the right to appeal. All students requesting a SAP Appeal should complete the following steps:

1. Complete a financial aid workshop (see details at [www.clcillinois.edu/faworkshops](http://www.clcillinois.edu/faworkshops)). Upon completing the workshop, the student will receive their SAP Appeal Form.
2. Provide a detailed statement explaining the circumstances resulting in your failure to meet Satisfactory Academic Progress standards (including third party documents as applicable).
  - All appeals must be complete and provide detailed information about extenuating circumstances. Extenuating circumstances include: personal illness/accident, serious illness or death within the immediate family, auto accident or other situation beyond the reasonable control of the student.

## Financial Information

- Third-party documentation is required when applicable with each appeal. Documentation may include, but is not limited to, copies of medical records, accident reports and/or letters from an academic advisor, work supervisor or other counselor. Appeals for additional degrees will be considered on a case-by-case basis.
- Appeals must be submitted in the term for which the student is seeking financial aid. Appeal forms will not be accepted unless all documentation is included with the form.
- Appeals must include a statement explaining the reason for not meeting the SAP standards and what changes have been made to ensure future success.
- All appeal decisions are final.

3. Meet with a counselor in the Counseling Center and complete an SAP Planning Form.

Students with approved appeals will be placed on a probation status for one term. At the end of the probation period, students who meet the terms of the probation will remain eligible for aid for the subsequent semester.

Students who do not meet the terms of their probation are returned to restricted status.

### Verification

The process of documenting the information a student provides on his/her FAFSA is called **verification**. If a student's application is selected for verification, and he/she does not provide the documents requested by the school, the student will not receive federal student aid. The student also might not receive aid from other nonfederal sources. Students should submit all requested documentation by deadlines published by the Financial Aid Office. Students must submit verification documents by federal deadlines posted in the Federal Register. See the Federal Register or your Financial Aid administrator.

If any discrepancies are found between the information you submitted on your FAFSA and the data on your verification documentation, the Financial Aid Office will make corrections to your FAFSA and, if necessary, adjust your financial aid awards.

2017-18 Verification Items may include:

- Number in household
- Number in college
- Certain Federal Income Tax information
- Certain untaxed income and benefits
- High school completion status
- Identity/statement of educational purpose

Applicants are strongly encouraged to utilize the IRS Data Retrieval Tool during the application process. This tool allows tax information to be electronically pulled from the IRS website onto the FAFSA application. If the retrieval tool is not utilized, and 2015 federal taxes were required to be filed, a copy of a 2015 Federal Tax Transcript, along with parent's transcripts for dependent students, may be required. Visit [www.clcillinois.edu/financialaid](http://www.clcillinois.edu/financialaid) for more information.

### Repeated Courses

A student may receive financial assistance one time for a repeated course. Third attempts will not be counted in the calculation for federal or state student aid.

### Financial Aid Online

For news, updates and additional information about applying, receiving and maintaining your financial aid awards, please visit the Financial Aid Office website at [www.clcillinois.edu/financialaid](http://www.clcillinois.edu/financialaid).

Students can access financial aid status information via myStudentCenter. Log in to myStudentCenter at [www.clcillinois.edu](http://www.clcillinois.edu) and click "View Financial Aid" in the Finances section on the main page. Next, select the aid year from the list of available years. If there are no awards pending, the application may still be under review.

## College of Lake County Foundation Scholarships

The College of Lake County Foundation is a private non-profit 501c3 charitable organization. Its mission is to raise scholarship funds for our students. Most Foundation scholarships are designed to benefit students who need financial assistance. To learn more about the Foundation's scholarship program, please visit [www.clcillinois.edu/scholarships](http://www.clcillinois.edu/scholarships). For more information about Foundation scholarships, call (847) 543-2634.

The CLC Foundation provides grants for innovative educational and cultural programs which support student success initiatives involving faculty, staff and students. The CLC Foundation serves as an administrative channel for accepting gifts to the college, which may include cash, securities, planned gifts, major gifts, automobiles, machinery, medical supplies, land, works of art and library materials. All gifts to the CLC Foundation are tax deductible to the extent allowed by law. The CLC Foundation Office is in the E Building on the Grayslake Campus. For more information, call (847) 543-2091.

## Student Body Profile

Our student body reflects the diversity of the Lake County community. In the fall of 2016 there were 14,769 students attending the college. These students represent a wide range of age groups, gender, racial and ethnic backgrounds.

### College-Level Students

In the fall of 2016, there were 12,673 college-level students enrolled at CLC. Nineteen percent of students graduating from Lake County high schools in the previous spring enrolled at CLC in the fall. Students in the 18-24 year old age group made up 66 percent of the student body. Students aged 25-34 comprised the second largest segment at 17 percent of the total. The average age of the college-level student body was 25 years old. Minorities comprised 45 percent of the student body. Hispanic students accounted for the largest single minority group (31 percent).

The majority of college-level students (67 percent) attended part time while 33 percent attended full time. Thirty-nine percent attended in the evenings and 68 percent in the daytime. Just under 6 percent of students attended classes on the weekends. Graduate follow-up surveys indicate that students who continue their education after graduating from CLC are well prepared for their classes. Among the fiscal year 2015 graduates who responded to the survey and entered the labor market after completing an A.A.S. degree or long-term certificate program, 72 percent of those employed full-time found work in fields related to their area of study.

### Adult/Vocational Education Students

In the fall of 2016, there were 2,116 adult/vocational education students enrolled at the College of Lake County. The majority (62 percent) of these students are enrolled in English as a Second Language classes. Students in the 25-34 year old age group made up 28 percent of the student body. Minorities comprised 79 percent of the student body. Hispanic students accounted for the largest single minority group (66 percent).

The majority of adult/vocational education students (94 percent) attended part time. Evening students outnumbered day students 54 percent to 38 percent. Seventeen percent of adult/vocational students attended classes on the weekends.

## Academic Advising

The college is committed to and values quality academic advising and recognizes its link to student success and retention. Academic advising is a systematic and multidimensional process designed to help students reach their academic and career goals. Students may contact the **Counseling, Advising and Transfer Center** at (847) 543-2060, [www.clcillinois.edu/depts/cou](http://www.clcillinois.edu/depts/cou) if they need academic advising.

### Advising Responsibilities of Advisors

Academic advisors, counselors and faculty provide academic advising to students according to students' needs, students' credit hours and the advising professionals' expertise. All advising professionals are responsible for providing accurate information to students, treating students with respect, educating students about the advising process and encouraging students to be active participants in the advising process. All advising professionals assist students in reaching their goals and make appropriate referrals when necessary. See below for how to locate the appropriate advising professional.

### Advising Responsibilities of Students

Students are responsible for contacting an advising professional when they need help with academic planning. They are responsible for, but not limited to, being active participants in the advising process by asking questions, taking notes, reading information in the college catalog and class schedule, considering or following through on advisors' recommendations, learning the graduation and other requirements for their programs of study and learning how to schedule and register for classes. Students who are unclear about their educational or career goals should seek assistance from a CLC counselor to develop those goals.

## Counseling, Advising and Transfer Center

Students may see an academic advisor or a counselor, depending on their circumstances and number of credit hours. Generally, new students and continuing students with 25 or fewer credit hours will meet with an academic advisor. Continuing students who have not met academic standards, or who plan to transfer and have more than 25 credits will typically meet with a counselor. Counselors meet with students for other reasons as well. See below for a list of counseling services and locations.

Counselors and academic advisors also assist students with using college and career resource information available in printed form and on computers. Transfer guides for public universities and many private universities are available at CLC's three campuses and [www.clcillinois.edu/transferinfo](http://www.clcillinois.edu/transferinfo).

*See addendum for corrections to this section.*

**Academic advisors and counselors are available at the Grayslake Campus:**

### Counseling, Advising and Transfer Center

19351 W. Washington St., Grayslake, IL 60030

Room A124

Monday through Thursday 7:30 a.m. to 7:30 p.m.

Friday 7:30 a.m. to 4 p.m.\*

Call (847) 543-2060 to schedule an appointment.

\* Holiday and break hours may vary.

**Counselors and academic advisors\* are also available at the following locations:**

### Lakeshore Campus

Student Services Center

111 N. Genesee St., Waukegan, IL 60085

Room N211

Call (847) 543-2186 to schedule an appointment.

### Southlake Campus

Campus and Student Support Center

1120 S. Milwaukee Ave., Vernon Hills, IL 60061

Room V130

Call (847) 543-6502 to schedule an appointment.

\* Advisors are available at the Lakeshore and Southlake campuses during registration periods.

## Mandatory Advising

Advising Professional (academic advisor, counselor or faculty member):

### • New Student Advising Hold

Recent high school graduates (within the last two years) entering college for the first time are required to meet with an academic advisor during the New Student Orientation (NSO) Advisement Session. For more information, visit [www.clcillinois.edu/nso](http://www.clcillinois.edu/nso).

### • 35<sup>th</sup> Hour Advising Hold

All degree or certificate-seeking students are required to meet with an advising professional (academic advisor, counselor or faculty member) prior to registering for their 35<sup>th</sup> college credit hour.

Outside of these two mandatory advising checkpoints, all students are strongly encouraged to meet with an advising professional each and every semester. Academic advising is designed to ensure that students start and stay on the right path to reach their goals. Advising professionals will explain degree requirements and/or complete a graduation or degree progress checklist with the student, make recommendations and remove an advising hold (if present) to allow registration for classes.

## Academic Divisions

All CLC students who are pursuing an Associate in Applied Science degree or certificate and have more than 30 credit hours, including enrolled hours, should meet with a faculty advisor in their program. Any student who would like to learn more about an academic division or related career field may also consult with faculty. Students can find their academic programs in this catalog by checking the index and turning to the page with the program requirements; the academic division office is listed below the title of the academic program. Academic division offices are located on the Grayslake Campus. For more information on how to contact a faculty advisor, call the appropriate academic division office listed below. Please note that faculty advisors are not always available during the week of final exams, between semesters or during the summer session.

### Division Offices

- Biological and Health Sciences  
Room B213 (847) 543-2042
- Business and Social Sciences  
Room T302 (847) 543-2047
- Communication Arts, Humanities and Fine Arts  
Room B213 (847) 543-2040
- Engineering, Math and Physical Sciences  
Room T302 (847) 543-2044

## Counseling Services Available through the Counseling, Advising and Transfer Center

Counselors provide career and personal counseling services for all students and academic advising for designated student populations. Counselors are available at all three campuses: Grayslake, Room A124, (847) 543-2060; Lakeshore, Room N211, (847) 543-2186; and Southlake, Room V130, (847) 543-6502.

### Assessment

A counselor can help students gain more knowledge about themselves, their learning styles and how they fit into the world of work through the use of career inventories and other assessments and exercises.

### Career Counseling

Students may meet with general counselors and career counselors to get help with choosing a major or career. These professionals use their career development expertise and formal training to guide students through a process of self-assessment, career research, decision-making and goal-setting. Self-assessment includes a guided exploration of values, interests, personality traits and skills. Career research enables students to gather information about tasks, responsibilities, required education and training, salary, job outlook and more. You can also investigate opportunities such as co-operative education, internships, volunteerism and more!

Benefits of career counseling include:

- Find a good fit between you and a career
- Save time and money on school
- Experience peace of mind by having a plan
- Engage in choosing your future
- Explore options in a supportive environment

For more information contact: Counseling, Advising and Transfer Center, Room A124, (847) 543-2060 or visit [www.clcillinois.edu/counseling](http://www.clcillinois.edu/counseling).

### Educational Development

Counselors can assist students in making the transition to college life and getting oriented to the college environment. They can also assist students who want to become more successful in school, need to meet academic proficiencies, and/or want to return to good academic standing. Students work with a counselor to develop an academic plan, to select appropriate classes and to learn strategies for success in school through individual conferences, workshops and classes in which they can learn study skills, methods for managing time, test-taking techniques and other strategies for becoming a better student. See PDS 124 and PDS 120 in the course section of this catalog.

### Personal Development

Counselors assist with personal growth and life planning and/or with personal problems that interfere with progress in school by providing individual or group sessions or referrals to appropriate community agencies. See PDS 121 and PDS 123 in the course section of this catalog for Personal Development courses.

### Personal Counseling and Crisis Intervention

Counselors provide help to students who may be in crisis and serve as a first-line resource for faculty and staff to immediately assist students. Counselors assist with personal growth and life planning, and/or with personal problems that interfere with progress in school by providing individual sessions or referrals to appropriate community agencies. Related courses: PDS 121 and PDS 123.

### Academic and Transfer Planning

Develop strategies to become more successful in school, meet academic proficiencies and achieve and maintain good academic standing. Counselors help interpret transfer guides, program outlines and transfer requirements for four-year schools. They also assist student with choosing a transfer university and provide academic and transfer planning services within the context of helping students meet career and life goals. Related courses: PDS 120 and PDS 124.

## Services for Students with Disabilities provided by the Office for Students with Disabilities (OSD)

The Office for Students with Disabilities (OSD) is located in Room B171 at the Grayslake Campus. The OSD provides academic accommodations, information and support to students with disabilities. Through the use of assistive technology, the OSD assists students via a broad range of software and hardware services, both within the department and throughout the college. Common academic accommodations include:

- Sign language interpreters
- Note takers
- Extended exam time
- Audio recorders
- Magnification devices
- Testing accommodations

To request accommodations, students must follow standard procedures outlined by the OSD.

1. Students must disclose their disability to the OSD as soon as possible.
2. The college reserves the right to request updated or additional documentation before granting specific requests if documentation is old or incomplete.
3. Each semester, students must request accommodations through the OSD.
4. Upon approval of a student request, the student and an OSD staff member will complete an Instructor Notification Form (INF) stating the particular accommodations.
5. The student is responsible for giving the instructor notification form to his/her instructor and discussing the accommodations.

Additional information may be obtained by calling the OSD at (847) 543-2055 or visiting [www.clcillinois.edu/osd](http://www.clcillinois.edu/osd). All student records are kept strictly confidential and maintained separately from other school records.

The programs and facilities at the College of Lake County comply with Section 504 of the Rehabilitation Service Act of 1973 and the Americans with Disabilities Act of 1990 and its amendments.

## Addressing Student Concerns

The Guide for Addressing Student Concerns is outlined within the Policies Governing Student Life beginning on page 33 of this catalog. This information is also posted throughout the college.

## CLC Police

A safe campus environment is only achieved through partnerships with students, faculty, staff, community and the Police working together to achieve a common goal. The CLC Police partner with all groups through Campus Watch, special classes, committees, and electronic media to achieve this goal. The College of Lake County Police Department's main telephone number is (847) 543-2081. This number will provide access to police services for all campuses. In an emergency, 911 can always be called as part of our partnership with the Grayslake, Waukegan and Vernon Hills Police and Fire departments. Because most crimes are preventable, CLC Police encourages everyone to become involved in protecting themselves and their property, by the use of common sense and awareness.

For information about the CLC Police Department please visit [www.clcillinois.edu/clcpolice](http://www.clcillinois.edu/clcpolice).

### How to Contact the CLC Police

To report a crime at the Grayslake, Lakeshore or Southlake campus, call the CLC Police Department at (847) 543-2081. If using a campus phone call 2081. To report an emergency to the CLC Police, call 5555 from any campus phone.

### Concealed Carry

All persons with a concealed carry license, once entering upon any College of Lake County property, must be cognizant of and fully comply with the Illinois Firearm Concealed Carry Act (430 ILCS 66/1 et. seq.). The college maintains a weapons and firearms-free campus, except as provided elsewhere in college policy or by Illinois state statute.

## Grayslake Campus

### General Crime Prevention

Trained Certified Police Officers are on campus seven days a week from 7 a.m. to 11 p.m. These uniformed officers provide visible foot and vehicle patrols. Trained Community Service Officers provide security services seven days a week from 11 p.m. to 7 a.m. Trained communication operators are on duty 24 hours a day. Escort services to and from the parking lots and out buildings are available 24 hours a day. In-house campus phones are located throughout the building and outlying buildings. 24 hour emergency call boxes are located in all student and staff parking lots. (Look for the blue light.)

### Other Services

- Active patrols in marked police vehicles, along with traffic and parking enforcement.
- Assisting motorists with minor vehicle problems such as dead batteries, or locking their keys inside.
- Self-defense classes, Campus Watch program, and classroom safety presentations

## Abandoned Newborn Infant Protection Act – Safe Haven

The College of Lake County (CLC) shall comply with the Abandoned Newborn Infant Protection Act and extended definitions of Acts ILCS 325/2.1-2.70 & ILCS 325 2/10). The act is intended to enable the parent(s) of a newborn to relinquish the infant to a safe environment, remain anonymous and avoid civil or criminal liability for relinquishing the infant.

In accordance with this act, the CLC Police will accept a relinquished newborn infant and provide all necessary emergency services and care at the Grayslake Campus only. The infant will be temporarily placed with a hospital or medical facility out of the custody of the infant's parent. The CLC Police will complete a police report and notify the Illinois Department of Children and Family Services within 12 hours of accepting a relinquished newborn infant.

A newborn infant is a child who a licensed physician reasonably believes is 30 days old or less and not abused or neglected at the time the child is relinquished. An infant is relinquished when brought to the CLC Police Department, and the person leaving the infant does not express intent to return for the infant. Procedures to implement this policy will be published through the CLC Police Department and available in that office and the college's website.

## Lakeshore Campus

### Crime Prevention

Trained certified Police Officers are on campus during operating hours (Monday through Thursday from 7 a.m. to 11 p.m.; Friday 7 a.m. to 6 p.m.; Saturday 7 a.m. to 3 p.m.). These uniformed officers maintain a branch office and provide visible foot patrols inside and out. All police services provided for at the Grayslake Campus are also available at the Lakeshore Campus.

### Parking

Parking for students, staff and visitors is available in the multi-level parking garage located at 30 N. Sheridan Rd. just east of the South Building. Only vehicles displaying a valid CLC permit will be authorized to park in these spaces. Parking permits are available at the South Building reception desk or in the Police Department. For the convenience of students, staff and visitors with temporary physical challenges that restrict their mobility, a motorized scooter is available by request at the South Building reception desk.

## Southlake Campus

### Crime Prevention

Trained certified Police Officers are on campus during operating hours (Monday through Thursday from 7:30 a.m. to 10 p.m.; Friday 7:30 a.m. to 4:30 p.m.; Saturday 8 a.m. to 2 p.m.). These uniformed officers maintain a branch office and provide visible foot patrols inside and out. All services provided at the Grayslake Campus also are available at the Southlake Campus.

## Services for Students

### Career and Job Placement Center

The Career and Job Placement Center (CJPC) office, located in the A Wing of the Grayslake Campus, provides opportunities to get first-hand knowledge regarding careers. We offer internship and job search assistance to all CLC students and alumni who are seeking employment opportunities. We can assist students and alumni with job shadowing a seasoned professional, connect students and alumni with a career mentor or place students in an internship. A career specialist can assist students with deciding if a career is right for them and even provide valuable resume building experience. Services include individual and group assistance in areas such as career exploration, job search techniques, resume writing and interviewing. Hours of operation are Monday through Thursday from 8 a.m. to 6 p.m. and Friday from 8 a.m. to 4:30 p.m. Employment opportunities received by the Career and Job Placement Center office are entered into the College Central Network database. Students may visit LancerJobLink powered by College Central Network at [www.collegecentral.com/clcillinois](http://www.collegecentral.com/clcillinois) to register and view internship and employment opportunities available. For more information, call (847) 543-2059.

### Internships

*See addendum for corrections to this section.*

Internships offer students the opportunity to gain valuable workplace skills and earn possible college credit for new learning in a work situation while integrating classroom theory with practical work experience. A new position or your current job may qualify as an Internship position if it is related to your field of study.

Internships for credit, or Educational Work Experience Internships, require students to enroll in EWE 220 Cooperative Work Experience I. This 1-credit course involves attending a series of seminars on work related topics including the following:

- Resume writing
- Interviewing skills
- Job search techniques and issues

## Student Development / Counseling and Advising

- Stress and time management
- Re-careering
- Contemporary Issues in the workplace
- Taking charge and moving up

*See addendum for corrections to this section.*

### Prerequisites for EWE

- At least 9 credit hours earned in the student's current major (if CIT student, 12 credits must be earned in the CIT program)
  - 2.25 GPA
  - Approval to enroll from CLC faculty sponsor
- For more information, call (847) 543-2059.

### Internship and Job Fairs

The Career and Job Placement Center offers several types of job fairs. Mini job/internship fairs offer students the opportunity to talk with area employers who share information about their organization, job opportunities and typical career paths within their business. For more information, call (847) 543-2059.

### Student Employment/Work Study

The Student Employment Program is administered by Career and Job Placement Center. The college's Financial Aid Office notifies students who are eligible for Federal Work Study with a Financial Aid Notification. Once a student has been notified and accepts his/her award, the Career and Job Placement Center assumes the primary role of administering the program and handles all aspects of the employment process for students. For more information, call (847) 543-2059.

### Student Help Desk

Students with technical issues are welcome at the CLC Technology Help Desk, conveniently located in room C102 adjacent to the student commons. This resource is staffed by friendly ITS staff members, equipped to assist students one-on-one with common technology queries, such as: myLogin password issues, guidance navigating the MyCLC portal, help with the CLC Mobile App, connecting personal devices to the campus WiFi and more. Service is available via walk-in, online chat, or by phone at (847) 543-4347. For additional information, including hours, self-service password reset options, and useful links, please visit [www.clcillinois.edu/helpdesk](http://www.clcillinois.edu/helpdesk).

## Student Use of Information Technology

In pursuit of its teaching and learning mission, the college provides access to Information Technology (IT) facilities and resources for students, faculty, staff and other authorized users according to institutional priorities and financial capabilities.

This access is a privilege granted by the college and is governed by such factors as relevant laws and contractual obligations, the nature and need of the information sought by the user and the risk of damage or loss to the college. Special training and the signing of a statement of responsibility may be required before access to IT facilities is allowed.

The **myLogin** account is the student's electronic identity at the College of Lake County. This identity is a combination of username and password, and allows online access to services including myStudentCenter, email, and Blackboard. Usernames are based on first and last name. If another user has a similar name, alternates are provided when the account is created. Once a username is created it cannot be changed unless documented evidence of a legal name change is provided.

The college reserves the right to limit, restrict, extend or deny computing privileges and access to its IT resources. The college may allow individuals other than college students, faculty or staff members access to information so long as such access does not violate any license or contractual agreement, college policy or any federal, state, county or local law or ordinance.

Information Technology Services provides important means of communication, both public and private. Authorized users and system administrators will respect the privacy of person-to-person communications in all forms, including voice (telephone), text (electronic mail, file transfer, fax) and image (graphics, television, video conferencing and satellite systems). The college reserves the right to monitor and record the usage of all college-owned Information Technology facilities and resources.

All members of the college community who use IT facilities and resources must act responsibly in their use of the resources. All users of the college's IT facilities and resources must respect the rights of other users, respect the integrity of the physical facilities, comply with all pertinent licenses, contractual agreements and operating procedures and uphold the highest standard of ethics. Information Technology shall only be used for the purposes of teaching and learning, administration, economic development or research.

### Unacceptable Use of Information Technology

1. It is not acceptable to use the college's equipment or facilities for any purposes that violate federal or state laws.
2. It is not acceptable to use the college's facilities in such a way as to interfere with or disrupt network users, services or equipment. Such interference or disruption includes, but is not limited to, the following: conducting profit-making activities or distributing unsolicited advertising unrelated to the College of Lake County; transmitting threatening, obscene or harassing materials or otherwise unwelcome email; propagating computer viruses; playing computer games; doing intentional damage or otherwise interfering with other individuals' use of the Internet, computer files or programs; copying college-owned software for personal use or using the network to make unauthorized entry to other computing, information or communications devices or resources.

### Enforcement

Intentional or negligent corruption or misuse of IT facilities and resources is a direct violation of the college's standards for conduct. Alleged violations of this policy will be processed in accordance with the processes outlined in the college's Policy Manual, collective bargaining agreements and the statement of Student Rights and Responsibilities. Access and use violations of Information Technology facilities and resources will be treated seriously. The college will pursue criminal and civil prosecution of violators as it deems necessary.

### Recording Guidelines

The use of recording devices by a College of Lake County student is dependent upon the particular course, program and the permission of the instructor. CLC students acknowledge that their classroom discussions and participation may be recorded. CLC students further acknowledge that any authorized recording of a class or program is for their use only and may not be accessed or utilized by any other individual. Use of any course or program recordings shall be used for educational purposes only and no replication or reproduction of the recording shall be made without the express written consent of the instructor and College of Lake County. Any student determined to have violated this procedure/rule shall be subject to discipline under the College's Student Rights and Responsibilities Policy and Procedures.

Students requesting to record a class pursuant to the Americans with Disabilities Act shall contact the Office for Students with Disabilities at (847) 543-2055.

## Policies Governing Student Life

In order to ensure that all students are treated fairly, the College of Lake County has developed policies governing student life.

### Student Rights and Responsibilities Policy

#### Preamble

It is the responsibility of the College of Lake County (CLC) to provide equal access to its educational opportunities and to prevent interference with those educational opportunities by maintaining an orderly, civil, and safe educational environment.

When students choose to attend CLC, they accept the Student Rights and Responsibilities Policy as members in the College's academic and social community. Each person has the right and ability to make personal decisions about his or her own conduct. Just as importantly, each person has the responsibility to live with the consequence(s) of his or her decision making.

### The Student Rights and Responsibilities Procedures

The CLC Guide to Student Rights and Responsibilities Procedures (SRRP) is designed to implement this policy and can be found at:

<http://dept.clcillinois.edu/ssd/StudentRightsandResponsibilitiesProcedures.pdf>. (To request a printed copy please contact the Student Development Office in Room A213, (847) 543-2048). The Procedures describes student rights and responsibilities, as well as examples of misconduct inconsistent with the academic environment at CLC. Types of misconduct can range from acts of dishonesty (cheating, plagiarism, forgery, etc.) to speech and related behavior that is disruptive or likely to be substantially disruptive to others or to the college environment (conduct that is likely to provoke a violent reaction, constitutes harassment/abuse, is aggressive, disorderly, lewd or indecent, attempted or actual theft, etc.). Included are responses to such behaviors and possible sanctions that are intended to educate and safeguard members of the College. The table of contents of the CLC Guide to Student Rights and Responsibilities - Procedures is as follows:

- I. Student Rights
- II. Standards of Conduct
- III. Student Conduct Process and Procedures
- IV. Sexual Misconduct and Title IX Process and Procedures
- V. Student Discrimination and Harassment Complaint Process and Procedures
- VI. Involuntary Withdrawal Process and Procedures
- VII. Academic Complaint Process and Procedures
- VIII. Definitions
- IX. Disciplinary Records
- X. Interpretation and Revision

### Student Rights

Students are entitled to enjoy the rights protected by the United States and Illinois Constitutions and laws, subject to legally recognized restraints that may be imposed because of the college's role and function. Students should exercise these rights reasonably and avoid violating the rights of others. See the CLC Guide to Student Rights and Responsibilities Procedures (SRRP) for more information.

### Standards of Conduct

The college considers the behaviors described in the following sub-sections as inappropriate for the College community. Any student found to have committed or to have attempted to commit the following actions is subject to the sanctions outlined in Sections III through VII. See the CLC Guide to Student Rights and Responsibilities Procedures (SRRP) for a list of examples of unacceptable behavior and conduct.

### Student Conduct Process and Procedures

Alleged acts of misconduct that are not sex- or gender-based discrimination or harassment will be investigated pursuant to the Standards of Conduct and any sanction rendered as a result of that process can be found in the CLC Guide to Student Rights and Responsibilities Procedures.

### Sexual Misconduct and Title IX Process and Procedures

CLC complies with the requirements of Title IX of the Education Amendments of 1972, which prohibits discrimination on the basis of sex in all programs and activities receiving federal financial assistance, and the IL Preventing Sexual Violence in Higher Education Act of 2015.

Alleged acts of misconduct related to sex-based or gender-based discrimination, including sex and gender-based harassment and sexual violence, will be investigated and be subject to the requirements of the disciplinary procedures pursuant to CLC's Sexual Misconduct and Title IX Policy and Procedures at and any sanction rendered as a result of that process is described in the CLC Guide to Student Rights and Responsibilities Procedures.

For more information visit  
[www.clcillinois.edu/titleixservices](http://www.clcillinois.edu/titleixservices).

The table of contents of the CLC Sexual Misconduct and Title IX Procedures is as follows:

- I. Introduction
- II. Notice of Coordination with Non-Discrimination Policy and Notice of Non-Discrimination
- III. Definitions
- IV. Title IX Coordinator and Deputy Title IX Coordinators
- V. Reporting Sexual Misconduct
- VI. Jurisdiction and Reporting Timeframes
- VII. Confidentiality
- VIII. What to do if you are sexually assaulted
- IX. Hospitals for Survivors of Sexual or Domestic Assault
- X. Protection Orders and No Contact Orders
- XI. Interim Measures and Protective Measures
- XII. Investigation and Resolution of Sexual Misconduct Complaints
- XIII. Prohibition on Retaliation
- XIV. Risk Reduction
- XV. Resources for Victims of Domestic Violence, Dating Violence, Sexual Assault and Stalking
- XVI. How to Contact the Department of Education, Office of Civil Rights

To ensure compliance with Title IX, CLC has a designated Title IX Coordinator and deputy coordinators who are responsible for developing, adopting and making this policy and procedures available to the college community.

Any individual of the CLC community who believes he/she has been discriminated against or harassed because of their gender, who has been subjected to sexual harassment, sexual assault, sexual misconduct, or relationship violence in violation of college policy, or who has witnessed such activity against another, may file a complaint or obtain information and assistance from the college's Title IX coordinators and their respective offices.

Any individual with questions regarding the application of Title IX may also contact the office for Civil Rights, U.S. Department of Education, 500 W. Madison St., Chicago, IL, 60601, (312) 730-1560 or (800) 421-3481, or email [OCR.Chicago@ed.gov](mailto:OCR.Chicago@ed.gov).

Any inquiries concerning the application of Title IX at the College of Lake County may be referred to the Title IX Coordinator:

Teresa G. Aguinaldo, Dean, Student Life  
College of Lake County  
19351 W. Washington Street, Grayslake, IL, 60030  
Room B106, (847) 543-2288  
[com401@clcillinois.edu](mailto:com401@clcillinois.edu)

## Student Discrimination and Harassment Complaint Process and Procedures

It is the policy of CLC to prohibit discrimination on the basis of race, sex, national origin, religion, sexual orientation, gender identity or expression, or any other protected status.

Alleged acts of misconduct related to discrimination and harassment that is not sex-based or gender-based will be investigated and be subject to the requirements of the disciplinary proceedings pursuant to the Student Discrimination and Harassment Complaint Procedures and any sanction rendered as a result of that process is described in the CLC Guide to Student Rights and Responsibilities Procedures.

### Involuntary Withdrawal Process and Procedures

Students who pose a direct threat of harm to self or others, or who substantially impede the lawful activities of other members of the College community, may be involuntarily withdrawn by the Associate Vice President (AVP) for Student Development or designee pursuant to this procedure and to the Involuntary Withdrawal Procedures developed and adopted by the College. See the CLC Guide to Student Rights and Responsibilities Procedures (SRRP) for more information.

### Academic Complaint Process and Procedures

Students have a procedure by which they can address their academic concerns such as class policies, quality of instruction, and faculty issues. Any student with an academic concern can complete an online form available on the CLC website. Student concerns will be addressed in a timely fashion by the appropriate academic division. The CLC Guide to Student Rights and Responsibilities Procedures has additional details regarding appropriate steps in the process.

### *If You See Something, Say Something!* Reporting Concerns, Grievances and Complaints

The College of Lake County is invested in maintaining the well-being of the campus environment. It is important that students, staff, and faculty have an equal share, interest and responsibility in ensuring a safe and respectful campus. If you have experienced something that causes you concern, or simply doesn't seem right, please report it.

Examples may include aggressive behavior of a classmate, an electronic threat made on social media, experiencing or knowledge of harassment or discrimination, witnessing suspicious activity or overhearing a conversation about violence.

For an immediate threat to the safety of yourself or others, call 911 or the CLC police department at extension 5555 (from an on-campus phone) or (847) 543-2081.

If you have a concern regarding:

- Safety, such as aggressive conduct that threatens or endangers the health or safety of any person: and/or
- Discrimination or harassment related to race, color, religion, sex, national origin, age, marital status, sexual orientation or disability,

Then complete the online CLC Cares Form located inside your Student Center in the MyCLC portal. Look for the CLC Cares icon on the left side of the page.

Note: if your concern is related to sex or gender based discrimination or harassment, you can complete the CLC Cares form or contact the college's Title IX Coordinator (more information on page 34).

If you have an academic concern, see page 33 for procedures for addressing students' academic concerns.

If you have a complaint regarding a service at the College or other concerns you would like to bring to the College's attention, please contact the appropriate office or department correctly. See page 376 for a directory of offices and departments.

If you have a question about how to report any concern, grievance or complaint, contact the Student Development Office for assistance. You may also submit a report in person to Student Development. The office is located on the Grayslake Campus, Room A213, (847) 543-2048.

## Notification of Rights under FERPA For Postsecondary Institutions

The Family Educational Rights and Privacy Act (FERPA) gives students certain rights with respect to their education records. They are:

1. The right to inspect and review one's educational records within 45 days of the day the College of Lake County receives a request for access. Students should submit to the registrar, academic dean or other appropriate college official, a written request that identifies the record(s) they wish to inspect.
2. The right to request the amendment of one's educational records that one believes are inaccurate or misleading. Students must write to the CLC official responsible for the record, clearly identifying the part of the record they want changed and specifying why it is inaccurate or misleading. If the College of Lake County decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment.

3. The right to consent to disclosures of personally identifiable information contained in one's educational records, except to the extent that FERPA authorizes disclosure without consent. Examples in which disclosure without consent is permitted include that of disclosure to school officials with legitimate educational interests and to appropriate parties in order to protect the health and safety of students or other individuals. A school official is a person employed by the College of Lake County in an administrative, supervisory, academic, research or support staff capacity (including law enforcement personnel and health staff), a person or company with whom the College of Lake County has contracted (such as an attorney, auditor or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. CLC is responsible for taking appropriate measures to permit only those school officials with legitimate educational interests to access individual records. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the College of Lake County discloses education records without consent to officials of another school at which a student applies or intends to enroll.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College of Lake County to comply with the requirements of FERPA. The office that administers FERPA is:  
Family Policy Compliance Office  
U.S. Department of Education  
600 Independence Ave., SW  
Washington, DC 20202-4605

At the College of Lake County, directory information consists of a student's name, address, email, student username, telephone number, major field of study, participation in recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards achieved and most previous education agency or institution attended by the student. As directory information, the college may use this data internally, as well as release it at the college's discretion without prior consent.

Any student objecting to the release of all or any portion of such information must notify the Records Office in writing. The restriction will remain in effect until revoked by the student in writing.

### Student Right-to-Know

In compliance with student right-to-know legislation signed into law on November 8, 1990 and amended by PL 102-26 in 1991, information on completion rates for students at the College of Lake County is available by contacting the Office of Institutional Effectiveness, Planning and Research, Room T332, Grayslake Campus, (847) 543-2096.

## Clean Air Smoke-Free Policy

To promote a healthy atmosphere for the College of Lake County, support environmental sustainability efforts, decrease maintenance costs and to comply with the Smoke-Free Campus Act and the Smoke-Free Illinois Act, the college hereby prohibits smoking and the use of any tobacco products on campus. The prohibitions on smoking do not apply to instances in which an individual, in a vehicle not owned by the college, travels through or parks on campus.

## Student Life/Student Services

### Children's Learning Centers

CLC offers affordable child care for students and the community at its nationally accredited Children's Learning Centers on both the Grayslake and Lakeshore campuses. A highly qualified staff provides child care for 2-6 year olds year-round with school-age care provided for children up to age 12 during the Summer Session. Children are enrolled in advance for limited times based on their parents' class, study and work schedules. For more information on fees, times and registration, call the Grayslake center at (847) 543-2053 or the Lakeshore Campus center at (847) 543-2190.

### Health Center

The Health Center provides primary nursing care for urgent and minor illnesses and injuries, making referrals when necessary, and providing over-the-counter medications for related symptoms. Student/staff immunizations and lab services are available by appointment for a greatly reduced cost. Confidential care is assured.

Screening services are offered in cooperation with other college departments and community agencies. Informational brochures on many health-related topics are available in the Health Center. Medical parking for temporary disabilities is authorized through the Health Center.

The Health Center is located in Room E127 (E Building) on the Grayslake Campus. Hours are Monday, Thursday and Friday from 8 a.m. to 4:30 p.m. and Tuesday and Wednesday from 8 a.m. to 7 p.m. when classes are in session. The Health Center is closed on Saturday and Sunday. For appointments, call (847) 543-2064.

### Intercollegiate Athletics and Physical Activities

Intercollegiate athletics and physical activities are an important part of student life. CLC teams compete in 12 intercollegiate sports. Women's sports include basketball, cross country, soccer, softball, tennis and volleyball. Men's sports include baseball, basketball, cross country, golf, soccer and tennis. CLC is a member of the National Junior College Athletic Association and the Illinois Skyway Intercollegiate Conference. The college is noted for its

excellence and integrity in athletics. The CLC physical activities programs provide a variety of fitness and wellness activities for students, faculty and staff. All CLC students enrolled in a credit class may use the CLC Fitness Center for free. For more information, contact the Office of Athletics and Physical Activities at (847) 543-2046.

### **LGBTQ+ Resource Center**

The LGBTQ+ Resource Center provides a place where LGBTQ individuals and allies are able to experience a sense of community and learn about LGBTQ identity and culture. Its goal is to build an inclusive campus community by offering support services, educational programs, and by advocating for leadership development. The Resource Center promotes the health and well-being of persons of all sexual orientations and gender expressions, their families and their friends. For more information, call (847) 543-2529 or email [lgbtqcenter@clcillinois.edu](mailto:lgbtqcenter@clcillinois.edu).

### **Multicultural Student Center**

The Multicultural Student Center provides programs and services to encourage educational, individual, social and cultural growth among CLC's diverse student population. The MSC promotes diversity and multicultural awareness, houses 7 multicultural clubs and 2 organizations and assists in coordinating activities that represent different cultures, provides peer mentors, offers college visits, works to retain underrepresented students and students of color, and helps with overall college retention and success. Emergency financial services are available to CLC students. For more information, visit the Multicultural Student Center, Room B113, Grayslake Campus or call (847) 543-2045.

### **Student Activities**

Student activities provide educational, social, cultural and recreational opportunities for students, staff and members of the community. Involvement in student activities is recognized by many employers as an asset, and they encourage students to develop skills by participating in campus clubs and organizations.

The Student Activities Office gives students the opportunity to become involved in campus life, to help bring about positive change and to meet new people and make new friends. The quality of a student's college experience can be related to the level of involvement in various college activities, such as Student Government Association, Program Board, Chronicle student newspaper and Lancer Radio. There are also 40-50 special interest clubs.

Student Activities feature co-curricular activities through the Illinois Skyway Collegiate Conference. Students get the opportunity to compete in the fields of: art, jazz, STEM (Science, Technology, Engineering and Math) and Writing with seven neighboring college participants.

Students also get an opportunity to participate in Campus Leaders for Community Service (CLCS), where they gain leadership skills through community service hours on and off campus and earn a co-curricular transcript for transfer and job-seeking.

Student organizations are college chapters of national student organizations. These include the Men of Vision Chapter of the Student African American Brotherhood and the Sister 2 Sister Chapter of the Student African American Sisterhood, for example. For information, stop by the Student Activities Office at the Grayslake Campus or call (847) 543-2280.

### **Phi Theta Kappa**

An international honor society exclusively for community college students who have a 3.5 cumulative GPA or higher and have accumulated a minimum of 12 credit hours. Membership is by invitation only. For more information, please call (847) 543-2756 or visit the Student Activities Office on the Grayslake Campus.

### **Student Government**

The College of Lake County Student Government Association (SGA) is the official representative organization of CLC students. Student senators and executive officers are here to be your voice — sharing your ideas, concerns and feedback with other student groups, offices and departments at the college. To get involved with SGA or to learn more about what SGA can do for you, contact [studenttp@clcillinois.edu](mailto:studenttp@clcillinois.edu) or call (847) 543-2295.

### **Veterans Services**

Veteran Student Services aims to provide a One-Stop location for your college and community resources, facilitate the transition of veteran and military students and directly support their persistence to graduate from College of Lake County, including their family members. For more information, visit Veterans Student Services in the Student Resource Center in Room B113 across from the Welcome and One Stop Center, Grayslake Campus, or call (847) 543-2018.

### **Women's Center**

The Women's Center serves the unique needs of the college's female students, staff and community members by providing a safe physical location and a variety of services. The center supports special populations of students and focuses on services geared toward the CLC female population, although its doors are open both to women and men. Emergency financial services and the Smart Choices workshop series are offered to CLC students only. For information, visit the Women's Center in Room B113, Grayslake Campus, or call (847) 543-2771.

## Academic Computing

The college's computing facilities are heavily used both for class sessions and by individuals for instruction, homework or personal computing needs. These computing facilities encompass a wide range of leading-edge hardware and operating systems, including Windows and Mac. Instructors will assist students in determining hardware and software requirements for their particular course.

All academic computing facilities are operated under a set of guidelines that are designed to improve the students' working environment while maintaining the integrity of the entire computing system. For specific information regarding equipment location and use, call the ITS User Services Department. Students may also call the Help Desk at (847) 543-HELP (4357) for assistance. For additional information including hours of operation and self-service resources, please visit [www.clcillinois.edu/helpdesk](http://www.clcillinois.edu/helpdesk).

## Academic Honors

### Semester Honors

Semester honors are compiled and published at the end of the fall and spring semesters. Students who have earned a grade point average of 3.0 (B) or higher while enrolled in at least 6 semester hours of transfer or career courses during a semester are recognized by placement on the **College Honor List** for that semester. Students placed on the Honor List are notified by the Educational Affairs Office approximately one month after the semester ends.

### Commencement Honors

Students who have earned at least 30 semester hours at CLC by the end of the fall semester immediately preceding the commencement ceremony will be recognized as receiving the following honors based upon cumulative GPA:

**Honors** .....3.00 - 3.49  
**High Honors** .....3.50 - 3.74  
**Highest Honors** .....3.75 - 4.00

The Records Office compiles the Commencement Honors list as part of the commencement program.

## Academic Standards

To help guide and measure students' academic success, the college has developed Academic Standards.

Academic standards are measured by two criteria: the **Course Completion Standard** and the **Grade Point Average Standard**. Students must meet these standards to be in good standing. The effective date that begins to measure academic standards is the last date to drop a class with no record of the class on the academic transcript, and with a full refund of tuition and fees. This date is specific to each class, and is a point when 15 percent of the class length has passed. Excluded from these standards are courses in Adult Basic Education (ABE), English as a Second Language (ESL), General Education Development (GED), Vocational Skills Technology, Contract Training, Continuing Education and General Studies.

### Course Completion Standard

The course completion standard calculation includes baccalaureate/transfer courses, career courses and developmental courses. The following table shows the minimum number of courses that a student must complete to remain in good standing.

Courses Attempted	Minimum Courses To Be Completed
2	1
3 or 4	2
5 or 6	3
7 or 8	4
9 or more	5

*NOTE: The course completion standard is for each individual term. It is not intended to be a cumulative standard.*

### Grade Point Average Standard

The grade point average calculation includes only baccalaureate/transfer courses and career courses; developmental courses are not included. Students who have attempted 15 or more semester hours at CLC must maintain the minimum grade point average listed below to remain in good standing:

Hours Attempted	GPA
15-44	2.0 either cumulatively or for the semester
45 or more	2.0 cumulative

*NOTE: The GPA standard is not applied to students who have cumulative attempted hours less than 15.*

### Students In Good Standing

Students who meet the Course Completion Standard and the Grade Point Average Standard are designated to be in good standing.

### Students Not In Good Standing

Students are not in good standing if, due to their academic record, they are placed in one of the following categories:

#### Academic Caution

Students previously in good standing who do not meet either the Course Completion Standard or the Grade Point Average Standard will be placed on academic caution.

Students on caution are recommended to limit their enrollment to the number of semester hours successfully completed during the previous term, or to only one course for credit, depending on whichever option yields the most credit hours. It is recommended that students on caution meet with a counselor.

#### Academic Restriction

Students on academic caution who do not meet the Course Completion Standard and/or Grade Point Average Standard will be placed on academic restriction.

Students on academic restriction are required to meet with a counselor and receive approval to register for courses. In their next semester at the college, students placed on academic restriction may only enroll in the number of credit hours successfully completed during the previous semester, or enroll in only one course for credit, depending on whichever yields the most credit hours.

#### Academic Suspension

1. Students who fail to meet the Grade Point Average Standard for three successive semesters are prohibited from taking courses the following fall or spring semester (summer excluded), except for Adult Education, Continuing Education and Workforce and Professional Development Institute courses.
2. If a student on academic suspension is enrolled for the following semester their enrollment will be dropped.
3. Students have the right to appeal their suspension to the Dean of Counseling, Advising and Transfer Center.

#### Students Returning From Academic Suspension

Students who have completed the one-semester suspension (summer excluded) are required to meet with a counselor and receive approval to register for courses. Students are limited in the initial semester of their return to enrolling for no more than 13 credit hours.

### Students Who Were on Academic Suspension, Returned to CLC and Again Fail to Meet Academic Standards

1. Students are placed in academic suspension again and prohibited from taking courses the following fall or spring semester (summer excluded).
2. Students who have completed the one-semester suspension again are required to meet with a counselor and receive approval to register for courses.

### Academic Standards Appeal Procedure

#### 1. Purpose

Students who have been suspended for failing to meet the Grade Point Average Standard requirement may appeal their suspension to the Dean of Counseling, Advising and Transfer Center.

#### 2. Appeal Procedures

- a. Within five (5) working days of the receipt of a suspension notification letter, the student must obtain a copy of the appeal procedures from the Counseling Office and meet with a counselor.
- b. Within five (5) working days, the student must complete an Academic Suspension Appeal Form and return it to the counselor.
- c. The Academic Suspension Appeal Form will be forwarded by the counselor to the Dean of the Counseling, Advising and Transfer Center. A decision will be made within five (5) working days of the receipt of the appeal form. The student may be asked to meet with the dean if it is deemed necessary.
- d. The decision of the dean may be appealed to the Associate Vice President for Student Development within five (5) working days of the dean's decision. The Associate Vice President for Student Development will review the request for appeal, meet with the appropriate parties and render a final decision regarding the appeal.

### Reinstatement of Good Standing

Students placed on academic caution, restriction or suspension, who satisfy both the Course Completion Standard and Grade Point Average Standards during their next semester or summer term at CLC, will be considered to be in good standing.

### Inactive Status

Students who have not enrolled in any course listed in the CLC class schedule for at least two years are considered inactive.

Inactive students who decide to re-enroll for courses will be governed by the college catalog covering the semester in which they register for courses.

## Academic Information and Regulations

### Forgiveness Option

Under extenuating circumstances, students may petition for a **one-time** forgiveness of up to 15 hours of prior D, F or FW grades in accordance with the following guidelines:

- At least two years have passed since the end of the term of the grades to be forgiven.
- Fifteen consecutive credit hours have been completed with no grades lower than a C.\*
- Forgiven grades remain on the student's record but are not computed in the student's grade point average.
- Forgiven grades cannot be used to meet graduation requirements.
- Students lose any existing educational guarantees for the forgiven courses.
- The college accepts no responsibility for the ways in which a transfer college or university or an employer might interpret a student's use of the forgiveness option.
- In consultation with a counselor, the student has signed a declaration of understanding.

Students who would like to use the Forgiveness Option should meet with a counselor.

\* This calculation includes baccalaureate/transfer courses, career courses and developmental courses.

### Declaring or Changing Program of Study

Students may declare or change their program of study by contacting the Welcome and One Stop Center, Room B114, Grayslake Campus. Any changes to the program of study should be planned with an academic advisor or counselor. The deadlines for changing a program of study are: Fall - December 1; Spring - May 1; Summer - July 15. Any change request received after the deadline will take effect beginning with the start of the next academic term. Changes to the program of study may affect a student's eligibility for financial aid. See page 24 for information on programs that are ineligible for financial aid.

### Academic Support

Academic support is provided to CLC students with individual needs through testing, student support services, academic coaching, tutoring and modular instruction. These services are available at the Grayslake, Lakeshore and Southlake campuses.

#### Testing Center

The Testing Center provides a single location on each campus where students can take a variety of exams to meet different academic needs: Academic Proficiency Test (APT) for CLC course placement; GED, CLEP, DSST, CLC classroom make-up exams, exams for CLC Online Courses; exams for Distance Learning and Online courses from other colleges; surveys and interest inventories for academic and career counseling, and many more. Please call for further information:

Grayslake Campus, Grayslake: (847) 543-2076  
Lakeshore Campus, Waukegan: (847) 543-2120  
Southlake Campus, Vernon Hills: (847) 543-6544

#### Student Support Services (SSS)

Student Support Services, a TRiO program which is funded by the Department of Education, is an interactive program designed to assist first generation, low income and/or students with disabilities in the completion of a certificate, associate degree or transfer program. Students meet one-on-one with the SSS staff throughout their academic career, and the staff will help students develop an individualized academic plan to ensure success at the college. Student Support Services offers academic support, study skills assessment and mentoring, financial aid workshops, career counseling, access to technology/computers, student activities, field trips and visits to four-year colleges, and cultural events. The staff works closely with other departments to create a holistic success plan for each student. Program participants leave the program with an increased level of knowledge of scholarships, financing their education and overall economic literacy as they prepare for life after college. The office is located in Room L033 at the Grayslake Campus, phone (847) 543-2755.

#### Coaching for Academic Success (CAS)

CAS uses proactive outreach and an early alert system to connect English and math students to an academic coach. Coaches provide intrusive academic support, connect students directly to resources and help students track academic progress. Students enrolled in courses designed to develop the skills needed for college-level courses are assigned to an academic coach. For more information, visit [www.clcillinois.edu/cas](http://www.clcillinois.edu/cas) or contact CAS at (847) 543-2763 or visit Room L123.

### Modular Instruction

Students wishing to improve basic skills in writing or mathematics can do so by enrolling in a module. These individualized, structured programs of study permit students to work at their own pace. Modules are available at the Grayslake, Lakeshore and Southlake campuses.

ENG 104 Individualized Topics in Writing and Reading

MTH 101 Elementary Concepts of Mathematics

Contact any tutoring center for more information.

### Tutoring

Tutoring services are available to CLC students at all three campuses. The cost for tutoring is covered by the comprehensive fee. Services include coaching in writing, as well as tutoring in mathematics, science, accounting, computer skills and some foreign languages. Students can work with writing coaches on written assignments from any class and at any stage of the writing process—from brainstorming to proofreading a near final draft.

Students are welcome to drop in for tutoring on a first-come, first-served basis. Appointments may be made for help with writing and computer skills. Hours, tutor availability and subject areas tutored vary by campus. For more information, visit [www.clcillinois.edu/tutoring](http://www.clcillinois.edu/tutoring) or contact the Grayslake Math Center at (847) 543-2449, the Grayslake Writing Center at (847) 543-2452, the Southlake (Vernon Hills) Tutoring Center at (847) 543-6542 or the Lakeshore (Waukegan) Tutoring Center at (847) 543-2179.

### Students with Disabilities

The Office for Students with Disabilities, located in Room B171, provides reasonable accommodations for students with disabilities. All requests require appropriate documentation of disability. For more information call (847) 543-2474, (847) 543-2473 or (847) 223-0134 (TTY). More detailed information can be found on page 30 of this catalog.

## Auditing

Students are permitted to audit courses. For audited courses, students receive a grade of X, which carries no grade points or semester hours of credit. Audited courses do not serve as prerequisites for subsequent coursework. The fee for auditing is the same as enrolling for credit.

A student who wishes to audit a course is expected to attend regularly. The completion of assignments, exams and projects is at the discretion of the student. Some types of courses may be deemed inappropriate for auditing because they require a high level of student involvement.

Students can request to audit a course by submitting the Course Audit Request from after enrolling in the course. Contact the Welcome and One Stop Center, Room B114, Grayslake Campus for more information. Changes in a student's enrollment status (audit to credit or credit to audit) must follow the time frames as listed for refunds in the withdrawal/refund schedule (Policy 421). See pages 19-21 for more information.

## Credit for Prior Learning

Credit for prior learning is a way for students to earn college credit for college level learning that occurs outside of the institution. CLC provides opportunities to earn credit for prior learning through a variety of methods. **Students intending to transfer credits to another college are strongly advised to check with the transfer school to determine its policy toward credit for prior learning.**

CLC board policy states that credit for prior learning is:

- Not to exceed a total of 30 semester hours required toward completion of an associate degree
- Not to exceed one-half of the semester hours required toward completion of a certificate
- Not to count toward the fulfillment of residency requirement for degrees or certificates.

There are three broad categories of credit for prior learning available to students enrolled at CLC: national standardized exams (such as AP, CLEP, and DSST), locally administered challenge exams, and credential review. For details about fees, specific credit, passing scores and examination requirements, additional information is available at [www.clcillinois.edu/cpl](http://www.clcillinois.edu/cpl). Students can also discuss credit for prior learning in person by visiting Counseling and Advising located in the B Wing, or by meeting with a specific academic division.

Credit earned from credit for prior learning is intended to be used towards a CLC degree or certificate. Approved credit will be posted as transfer credit and may not be accepted at other colleges or universities.

## Academic Information and Regulations

### National Exams

Students who plan to earn CLC course credit through AP, CLEP and/or DSST must request an official transcript of their exam scores from the appropriate testing agency, and ask the agency to send the transcript directly to CLC Records Office.

- **Advanced Placement (AP):** High school students can arrange for AP tests, administered by the College Board, through their local high schools. AP test scores determine specific placement and/or college credit. Students may find more information about AP exams through the College Board's website at <http://apcentral.collegeboard.com>.
- **College Level Examination Program (CLEP):** The College Level Examination Program is a national program sponsored by the College Board. Additional information can be found, along with study guides on the College Board's website: [www.collegeboard.org](http://www.collegeboard.org) – choose links for “Students” and “CLEP.”
- **DSST (formerly known as DANTES Subject Standardized Tests):** The DSST program is a national credit-by-exam program offered by Prometric. Students can find more information on DSST at [www.getcollegecredit.com](http://www.getcollegecredit.com).

Each division determines which tests it will accept for credit and the amount of credit it will award. For details about exams offered and specific credit, additional information is available at [www.clcillinois.edu/cpl](http://www.clcillinois.edu/cpl). Students can also discuss their options in person by visiting the Welcome and One Stop Center, Room B114, Grayslake Campus, or by meeting with a specific academic division.

The College of Lake County grants credit only to students enrolled at CLC. Results of these exams may also be sent to another school at which a student is enrolled for the purposes of credit recognition. Please call the Testing Center of your choice for testing schedules, registration procedures, related fees and other information:

- Grayslake Campus, Grayslake: (847) 543-2076
- Lakeshore Campus, Waukegan: (847) 543-2120
- Southlake Campus, Vernon Hills: (847) 543-6544
- Great Lakes Center, Great Lakes: (847) 543-2120

### Challenge Exams

Challenge exams are available for students who possess prior knowledge of a subject area in a specific course. Students may not take a challenge exam for a course in which they were previously enrolled and received any grade inclusive of I, W or X. Students may only attempt a challenge exam one time for any particular course and may not take a challenge exam after the first week of a course for which they are currently enrolled.

Challenge exams are not available for all courses and are offered at the discretion of the discipline/program faculty. Each division determines which tests it will offer for credit and the amount of credit it will award. For details about exams offered and specific credit, additional information is available at [www.clcillinois.edu/cpl](http://www.clcillinois.edu/cpl). Students can also discuss their options in person by visiting Counseling and Advising located in A124, or by meeting with a specific academic division. Please call the Testing Center of your choice for testing schedules, registration procedures, related fees and other information:

- Grayslake Campus, Grayslake: (847) 543-2076
- Lakeshore Campus, Waukegan: (847) 543-2120
- Southlake Campus, Vernon Hills: (847) 543-6544
- Great Lakes Center, Great Lakes: (847) 543-2120

### Credential Review of Certifications, Licensures, and Industry Credentials

CLC awards college credit for credentials earned outside of a traditional college or university setting. Credentials may include professional certifications, licenses, and documented educational and training courses. The evaluation process will examine credentials on an individual basis and award college credit when appropriate. Credentials must be current at the time of evaluation and posting. Provisional or certificates of attendance will not be eligible for credit.

Credential review is not available for all courses and is offered at the discretion of the discipline/program faculty. Each division determines which credentials it will accept for credit and the amount of credit it will award. For details about fees, currently accepted credentials, and required documentation, additional information is available at [www.clcillinois.edu/cpl](http://www.clcillinois.edu/cpl). Students can also discuss credential review in person by visiting Counseling and Advising located in A124, or by meeting with a specific academic division.

There are other types of credit that may be considered credit for prior learning. For more information on articulation agreements with area high schools please see the catalog section on dual enrollment/dual credit (page 13). For more information on transcript evaluation, including international transcripts, please see the catalog section on transfer of credit (page 49).

## Course Load

The course load for a full-time student ranges from 12 to 18 credit hours during the Fall and Spring Semesters and from 6 to 10 hours during the Summer Session. Special permission from a counselor must be obtained for more than 18 credit hours during the Fall and Spring Semesters or for more than 10 credit hours during the Summer Session. Intersession is part of the Summer Session and only one intersession course is recommended because intersession courses are very accelerated.

An employed student should vary his or her course load according to the number of hours he or she works. A good rule of thumb is to plan for three hours per week for each credit hour taken; one hour for the formal class meeting and two hours for outside study and homework.

The number of credit hours that a student may take is limited for those on academic restriction.

## Final Examination

A final examination is generally required in all courses. Examinations dates and times will be available to students in their student portal after registering for classes.

Except under emergency circumstances, a student may not be excused from these examinations. If a student is unable to appear, it is his or her responsibility to inform the instructor prior to the scheduled examination.

## Grades and Grade Points

Final letter grades are earned for each class, issued at the end of each semester, and recorded on the student's permanent academic record according to the following schedule:

	Grade	Significance	
	A	Excellent	4 Grade Points
Calculated in Grade Point Average	B	Good	3 Grade Points
	C	Average	2 Grade Points
	D	Below Average	1 Grade Point
	F	Failure	0 Grade Points
	FW	Withdrawn by Institution, Failing	0 Grade Points
	I	Incomplete*	
Not Calculated in Grade Point Average	N	Requirements Not Fulfilled	
	O	No Grade Received	
	P	Satisfactory	
	R	Repeated	
	W	Withdrew	
	WN	Withdrawn by Institution, Never Attended	
	WS	Withdrawn by Institution, Stopped Attending	
	X	Audit	

\* See right for more information on Incompletes.

The college offers a number of developmental and academic ESL courses that are graded A through F, but not computed in the student's grade point average. These courses appear on the student's academic transcript with a grade, but no grade points. (Developmental courses include ENG 108, 109; MTH 101, 102, 104, 105, 106, 107, 108; academic ESL courses such as ELI 103, 104, 108, 109 and 110.)

Grades of P and N are used for non-academic ESL courses such as ESL 30 through 83.

Note: Although CLC does not compute the grades of basic skills or academic ESL courses into the grade point average, some colleges and universities to which a student transfers may include these course grades when recalculating the grade point average to meet their standards.

### Incompletes

An I (Incomplete) may be given to a student who finds it impossible to complete the work by the end of the semester because of a justifiable reason such as illness. If an I grade is assigned, the instructor shall notify the student and the dean. The specific I grade procedure will be set forth in the appropriate section of the college catalog. A student receiving an I grade has 120 days to complete coursework and receive a final grade. The final grade shall be A, B, C, D or F. An I becomes an F on the 121<sup>st</sup> calendar day after the end of the term if no grade change is signed by the instructor. Exceptions may be granted by an instructor only in unusual circumstances and with the approval of the appropriate dean.

Veterans and military personnel who are deployed (including training at U.S. or overseas locations) or called to active duty and receive an I Incomplete grade will be given up to one year after the end of the term, or before the date of graduation (whichever comes first) to complete the requirements. A final grade will be recorded within 365 calendar days after the end of the term. The final grade shall be A, B, C, D, or F. An I becomes an F on the 366<sup>th</sup> calendar day after the end of the term if no grade change is signed by the instructor. This procedure also applies to the spouses of veterans and military personnel. Exceptions may be granted by an instructor under special circumstances and with the approval of the appropriate dean. Another option is to receive a withdrawal. See page 20 (Withdrawal of Veterans and Military Personnel.)

### Independent Study

Students may pursue courses offered by the college on an independent study basis under the following conditions:

1. Lack of enrollment in a course appropriate for the student's program of study precludes its being offered as a regularly scheduled class.
2. Documented, extenuating personal circumstances preclude an individual's enrollment in a scheduled class appropriate for his or her program of study.

Approval is granted upon the concurrence of a faculty member who agrees to guide the independent study and upon the authorization of the academic dean.

## Joint Agreements and Tuition Chargebacks

### Joint Agreements – CAREERS

The College of Lake County participates in the CAREERS (Comprehensive Agreement Regarding the Expansion of Educational Resources) partnership with other Illinois community colleges. CAREERS allows students from participating community colleges to enter programs leading to an Associate in Applied Science degree or certificate offered at participating colleges and pay in-district tuition rates.

Students who reside in a participating district and are interested in a CLC program that is not offered by their home district may be eligible for in-district tuition. For these programs, in-district tuition rates may be available upon presentation of a Joint Agreement Authorization form. Authorization forms are obtained at the home district college.

Students living in CLC's district who are interested in a program not offered by CLC may be eligible for in-district tuition while attending a participating college. Students should contact the contact the Welcome and One Stop Center at (847) 543-2061 for program information and authorization to register at the appropriate school.

### The following schools participate in the CAREERS Agreement:

- Black Hawk College
- Carl Sandburg College
- City Colleges of Chicago
- College of DuPage
- Danville Community College
- Elgin Community College
- Heartland Community College
- Highland Community College
- Illinois Central College
- Illinois Eastern Community Colleges
- 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
- Waubensee Community College
- William Rainey Harper College

**Joint Agreements – Additional Agreements**

The College of Lake County has additional agreements with other colleges, such as Gateway Technical College. This agreement is similar to the CAREERS agreement, and may provide eligible students the advantage of in-district tuition. All programs have been planned with the assistance of citizen’s advisory committees to meet local and regional employment needs. They have also been planned in conformity with the Illinois Community College Board, the Illinois Board of Higher Education and the Illinois State Board of Education.

College	Programs Offered by CLC	Programs Offered by Agreement School
<p><b>Gateway Technical College</b> 400 County Rd. H Elkhorn, WI 53121</p> <p>NO CHARGEBACKS WILL BE ISSUED TO THIS SCHOOL</p> <p>Gateway Technical College residents will be assessed a slightly higher tuition rate upon presentation of the Joint Agreement Authorization.</p>	<p>Automotive Collision Repair (A.A.S. and Certificate) Dental Hygiene (A.A.S.)** Electrician Apprenticeship (A.A.S.) Health and Wellness Promotion</p> <ul style="list-style-type: none"> <li>• Health and Wellness Promotion (A.A.S.)</li> <li>• Personal Training (Certificate)</li> <li>• Wellness Coaching (Certificate)</li> </ul> <p>Laser/Photonics/Optics</p> <ul style="list-style-type: none"> <li>• Laser/Photonics/Optics (Certificate)</li> <li>• Applied Lasers (Certificate)</li> <li>• Biophotonics (Certificate)</li> </ul> <p>Machine Tool Trades (A.A.S.) Mechatronics (Certificate) Medical Imaging</p> <ul style="list-style-type: none"> <li>• Medical Imaging (A.A.S.)</li> <li>• Computed Tomography (Certificate)</li> <li>• Magnetic Resonance Imaging (Certificate)</li> </ul> <p>Phlebotomy Technician (Certificate) Sustainable Agriculture (Certificate) TESOL (Certificate)</p> <p><small>** Indicates high demand, limited seats available in program at the College of Lake County. Per the agreement, priority for admission to the "receiving district" shall be given to residents of the state of the "receiving institution." No residents of the state of the "receiving institution" may be displaced from the "receiving institution" due to this Agreement. Students are eligible to attend CLC at the resident tuition rate, but are considered out of state in the program's subject-area courses.</small></p>	<p>Aeronautics-Pilot Training (A.A.S.)* Automated Manufacturing Systems Technology (A.A.S.) Barber (DIP)* Cosmetology (DIP)* Dental Assistant (DIP)* Diesel Equipment Mechanic (DIP) Diesel Equipment Technology (A.A.S.) Electromechanical Technology (A.A.S.) Facilities Maintenance (DIP)* Graphic Communications (A.A.S.) Health Unit Coordinator (DIP)* Industrial/Mobile Hydraulic Mechanic (Certificate) Interior Design (A.A.S.) LPN Bridge to Nursing (A.A.S.)* Physical Therapy Assistant*</p> <p><small>* Indicates high demand, limited seats available in program at Gateway Technical College. Per the agreement, priority for admission to the "receiving district" shall be given to residents of the state of the "receiving institution." No residents of the state of the "receiving institution" may be displaced from the "receiving institution" due to this Agreement. Students accepted prior to August 1, 2010 and continuously attending under this agreement will continue to be treated as resident students. All students accepted after August 1, 2010, are eligible to attend Gateway at the resident tuition rate, but are considered out of state in the program's subject-area courses.</small></p>

## Tuition Chargebacks

Another option for students wishing to pursue programs not available at CLC is by obtaining a chargeback. Through the chargeback process, an individual applies for approval to register at another Illinois community college 30 days before the beginning of the semester. If approved, the student pays the in-district tuition rate for the college he or she is attending and the College of Lake County pays the difference between the in-district and out-of-district rate to the other institution.

Chargebacks and joint agreements are available only for programs resulting in an Associate in Applied Science degree or certificate and not for individual courses. A joint agreement is valid for one academic year and will need to be renewed upon the start of each academic year. Students who wish to renew or apply for a joint agreement or a chargeback may do so by contacting the Welcome and One Stop Center at (847) 543-2061.

## Tuition Chargebacks for Out-of-District Residents

Partial student support is available to some Illinois residents who are not residents of the CLC district. Contact your local community college for the proper forms and information. If you do not live in a community college district, contact your local high school.

## Other Educational Options

### Education Abroad

As a means of promoting international education among its students, CLC offers both short term and long term education abroad programs. These programs provide students an opportunity to enhance their understanding of other cultures, as well as their own, and gain an invaluable global perspective.

Short term education abroad programs are typically two to three weeks in duration and take place during Intersession (mid to late May) or winter break (December-January). Destinations vary each year. Programs are led by experienced CLC faculty and provide students the chance to earn 3-6 CLC credits.

Students interested in residing and studying in another country for a longer period of time may participate in a semester abroad program offered through the CLC or the Illinois Consortium for International Studies and Programs

(ICISP). Students may choose from a program in Xi'an, China; Canterbury, England; Salzburg, Austria; Carlow, Ireland; Seville, Spain; Hyderabad, India; Dijon, France or San Jose, Costa Rica. The curriculum for these programs emphasizes courses in art, foreign language, history, humanities, literature and music. All courses may be used to fulfill graduation requirements or as electives in transfer degree programs.

Financial aid for qualified persons may be applied toward the cost of education abroad programs at CLC.

For more information about education abroad programs offered at CLC, through ICISP or other study abroad organizations, contact the Center for International Education at [cie@clcillinois.edu](mailto:cie@clcillinois.edu) or (847) 543-2563.

### Field Experiences

In addition to providing education in the classroom, lecture hall and laboratory, CLC faculty members also teach courses "in the field." Faculty lead field study and travel courses for a variety of art, biology, geology, history and humanities courses to locations such as Door County or the Appalachian Trail. See the current class schedule for more information about which field study courses are being offered in a given semester.

### Honors Program

The Honors Program is dedicated to providing students with opportunities to enrich their academic and community experiences and to reflect the diversity of the college community as a whole.

Honors work emphasizes independence and critical thinking skills. Students can anticipate challenging types of assignments, research with primary sources, increased group activity and opportunities to take on leadership roles inside and outside of the classroom. The following criteria are used to determine acceptance into the Honors Program:

- Completion of Honors application form
- Unofficial high school and/or college transcripts

In addition, students must meet either of the following criteria to be admitted into the Honors Program.

#### Required:

- A high school GPA of 3.5/4.0 **or**
- A college GPA of 3.5/4.0 (with a minimum of 12 academic credit hours)

For questions about honors coursework or program requirements, please contact Nick Schevera at (847) 543-2959 or [nschevera@clcillinois.edu](mailto:nschevera@clcillinois.edu).

## Academic Information and Regulations

### Blended Courses

Blended courses (previously referred to as hybrid courses) offer instruction that is partially taught online and partially taught on-campus. **Not all blended courses are configured the same.** Some courses will have mostly online content with a few face-to-face classes; some will meet on campus on alternate weeks; some may meet on campus weekly but include an online component for part of the class; some may have varying online and on campus schedules. A blended course is indicated in the schedule as a -600 section class.

The benefits of blended courses are that they offer the flexibility of an online class, but still allow for face-to-face interaction with your instructor and peers. However, many of the same tips for success for online courses still apply. Blended courses are being offered by all the academic divisions.

### Online Courses

The college allows students to take courses from the convenience of their own homes using the Internet. Students may take courses towards the A.A., A.S., A.A.S. and A.G.S. degrees and certificates online via the Blackboard course management system.

Please keep in mind that online courses are not for everyone; there are technical requirements as well as the need for self-motivation, time management skills and the ability to work independently in some cases. However, for many students online courses have proven to be effective alternatives to on-campus courses. For more information, visit the CLC online web page, [clconline.clcillinois.edu](http://clconline.clcillinois.edu).

To learn more about online options, please contact Kris Dahl in the Counseling Center at (847) 543-2353 or [kdahl@clcillinois.edu](mailto:kdahl@clcillinois.edu).

## Open Educational Resources

Open education resources (OER) are teaching, learning and research resources that are designed by CLC faculty, copyright-free or have been released under a copyright license that permits others to reuse, revise, remix, and redistribute. Courses designated as OER will either have no additional cost to the student beyond regular tuition and fees, or have required course materials costing up to \$25. The goal of the OER Initiative is to radically decrease student costs by offering low-cost or no-cost options for course materials. This initiative was made possible by funding and support provided by the College of Lake County Foundation. Courses using OER materials can be easily identified by the OER star or notation in MyStudentCenter.

## Physical Education Credit

Any student who is eligible for the G.I. Bill or who has had two years of active duty in the armed services may be given 2 credit hours of credit for physical education.

## Repeating a Course/ Re-Enrolling in a Course

Students may repeat courses that are identified in the course description as being repeatable. Repeatable courses are those that teach a skill that may be improved through continued practice or those whose subject matter changes from semester to semester. The number of times these courses may be repeated is identified in the course description. In some cases students may be stopped from enrolling if they have exceeded the maximum allowable attempts at a course (i.e. PED 121 for 4 credits).

Student may also re-enroll in a course in an attempt to improve their grade or for other reasons. When a student re-enrolls in a course, the highest grade earned, or the most recent grade if all the grades are the same, should be the only grade computed in the student's grade point average. Grades that are not computed in a student's grade point average based on the repeat rules will be noted on the transcript.

## Mathematics Department Initiative for Course Repeaters

A student may take a mathematics course three times without penalty. Each semester the Office of Admissions and Mathematics department will send a series of communications to all students enrolled in mathematics classes. These communications will inform students about support resources at the college and behaviors necessary for success. These communications will also alert students to the consequences of repeating courses. Students will be advised that the college incurs an extra financial burden due to repetition and will be informed of the issues related to an unsuccessful third attempt of a mathematics class.

A student who does not successfully complete a given course (grade of C or better) on the third attempt or beyond will have a “Hold for Course Repetition” placed on his or her record which may prevent the student from registering for that particular mathematics course. A grade of W is considered an unsuccessful course attempt.

Should the student wish to enroll in the course again he or she may be required to:

1. Meet with a math advisor or counselor to discuss a potential fourth or beyond enrollment and strategies that will help the student succeed in the course.
2. Take on additional financial obligation for delivery of the course by paying, in addition to the standard per credit hour cost, a non-refundable repeat fee of \$25 per credit hour.

## Transfer of Credit

A student who has previously attended another college and who intends to earn a degree or certificate from the College of Lake County must have an official transcript from each college sent directly to the Office of Records and submit a “Request for Evaluation of Transfer Credit” form. Students who have earned credit at non-regionally accredited institutions must complete the “Appeal of Evaluation of College Transcript” and follow the steps on the form. For information on credit for prior learning related to exams or credential review see page ■ 42.

Transfer evaluations are based on the student’s program of study at CLC. Credit will be granted for acceptable work completed at other approved colleges and universities for courses in which a student has earned a grade of C or better. Credit will also be awarded for courses in which a D has been earned provided a student’s overall average is C or better for the credits transferred. Transfer credits accepted from other collegiate institutions will be entered on the student’s permanent record at the College of Lake County, but the grades earned in these courses will not be used to compute the student’s cumulative grade point average.

International transcripts will not be evaluated; you must contact a NACES approved evaluator for evaluation for foreign coursework, and have the official evaluation sent to Registrar and Records. The evaluation must be a Catalog Match evaluation in order to be considered for transfer credit. Contact a counselor or advisor for a list of approved companies that provide Catalog Match services.

All documents and transcripts submitted to the College of Lake County become part of CLC’s permanent record. Copies of documents and transcripts will not be released to the student or third parties unless required by law.

### Associate Degree Transfer Programs

CLC's associate degree transfer programs allow students to transfer to schools throughout Illinois and across the United States.

In general, reports from state universities indicate that CLC transfer students generally perform as well as, or better than, students who begin their studies at four-year schools. Moreover, a five-year longitudinal study of students transferring from two-year colleges to four-year colleges and universities in Illinois revealed that students who transferred with an Associate in Arts or Associate in Science degree earn higher grade point averages and have higher completion rates than students who transfer without a degree. Almost 70 percent of the A.A./A.S. degree students had graduated or were still enrolled at the end of the study with an average GPA of 2.81.

The College of Lake County successfully prepares students for higher level college courses. Students enjoy their programs at CLC and successfully transfer credits to four-year schools. This is especially true for students who earn an associate transfer degree. CLC offers an Associate in Arts, Associate in Arts in Teaching, Associate in Science, Associate in Engineering Science and Associate in Fine Arts degrees to individuals interested in pursuing a baccalaureate degree at a senior college or university. The degree a student chooses to pursue at CLC should be based on the student's proposed major at the intended transfer institution. To ensure full transferability of coursework, students should work with an advising professional who will assist with verifying degree requirements for the specific senior college or university of the student's choice.

### Transfer Resources and Transferability of CLC Courses

#### The Illinois Articulation Initiative — IAI

This initiative is limited to students who are first time college students since 1998.

The College of Lake County is a participant in the **Illinois Articulation Initiative (IAI)**, a statewide transfer agreement which is transferable among more than 100 participating colleges or universities in Illinois. The IAI establishes a "package" of lower-division general education coursework accepted at all participating schools. This package is known as the Illinois Articulation Initiative General Education Core Curriculum (IAI GECC).

- Completion of the IAI GECC assures transferring students that lower-division general education requirements for a bachelor's degree have been satisfied at any participating institution. Note: Students may have to meet institution-wide, mission-related, or particular major general education requirements after transfer.
- Students who do not complete the IAI GECC before transfer and have less than 30 transferable semester credits need to complete the general education requirements of the transfer institution; completed CLC courses will be evaluated on a course by course basis.
- Students who do not complete the IAI GECC and have at least 30 transferable semester credits and who transfer to an IAI participating institution have the option of completing either the IAI GECC at the transfer institution or the institution's lower-division general education requirements, which may differ from the IAI GECC.
- A list of IAI participating colleges and universities can be found on the iTransfer website: [www.iTransfer.org](http://www.iTransfer.org).

The IAI GECC consists of 12 to 13 courses (37–41 semester credits) chosen from the following five categories: Communications, Social/Behavioral Sciences, Physical/Life Sciences, Mathematics, and Humanities/Fine Arts. Specifically, the GECC requires:

- **Communications:** 3 courses (9 credit hours); must include a two-course sequence in writing completed with grades of C or better and one course in oral communication.
- **Social and Behavioral Science:** 3 courses (9 credit hours); a maximum of two courses from one discipline; at least one course must come from a second discipline.
- **Physical and Life Science:** 2 courses (7 credit hours); one course must be selected from Physical Science and one course from Life Science; at least one course must be a laboratory science course.
- **Mathematics:** 1 course (3 credit hours)
- **Humanities and Fine Arts:** 3 courses (9 credit hours); one course must be from Humanities, one course must be from Fine Arts, and one course from either discipline.

See a complete list of IAI courses offered by the College of Lake County on pages 229-231.

The Associate in Arts and the Associate in Arts in Teaching Secondary Mathematics degrees contain the IAI GECC.

- Students who complete the IAI GECC and the CLC A.A. or A.A.T.-Math will be considered having achieved junior status upon transfer to a participating four year college or university.
- The IAI also includes major recommendations for the first two years of college. IAI major recommendations work best for students who have chosen their majors but are undecided on the college or university they plan to transfer to. Courses should be selected in consultation with a CLC advising professional.

In order for a student's transcript to indicate the completion of the IAI GECC, students must submit an Illinois Articulation Initiative (IAI) Audit Request form to the Registrar and Records department to audit their transcript. Once completion of the IAI GECC is verified, it will be noted on the transcript. Students should contact an advising professional in the Counseling, Advising and Transfer Center to review their records and complete the form.

Note: Effective beginning the 2016-2017 academic year, the Illinois Community College Board approved changes to the Associate in Science (A.S.) degree model which reduces the number of required credits in the general education core curriculum. As such, the A.S. degree no longer includes the IAI GECC package: A.S. degree completers may complete the IAI GECC upon transfer to an IAI participating institution or may select appropriate elective coursework within the A.S. to complete the IAI GECC at CLC. Guidance from a CLC advising professional is strongly recommended.

### Transfer Credit Guarantee

The College of Lake County guarantees to its transfer students that course credits from the A.A., A.S., A.E.S. and A.F.A. degrees will transfer to the Illinois public colleges and universities that participate in the Illinois Articulation Initiative.

The guarantee of transfer credit is limited by the following conditions:

1. The student must complete the A.A., A.S., A.E.S., or A.F.A. degree at the College of Lake County within three years of his or her initial enrollment at the College of Lake County.
2. This guarantee applies only to courses taken at the College of Lake County.
3. The student must have earned a grade of C or better in the course in question.
4. The guarantee applies only to courses included in a written transfer/articulation plan, which must be on file with the Transfer Coordinator.
5. A request for additional course work must be received by the College of Lake County no later than two years after the student has graduated.

6. The student must invoke the terms of the guarantee of transfer within 60 days of any notification that the course credit has been declined or refused by the transfer institution. Requests should be directed to the transfer coordinator and must contain documentation that one or more of the courses included in the written transfer/articulation plan did not transfer. The request must specify the name, position, address and telephone number of the person or office denying the transfer of credit, the date that the denial was received and the reasons, if any, for the denial.
7. CLC is not responsible for books, additional course fees tools, activity fees or any other course-related expenses.

### Transfer Partnerships: Guaranteed Transfer Admission, Dual Admission and Articulation Agreements

The College of Lake County has guaranteed transfer admission agreements that allow eligible CLC students guaranteed admission to transfer colleges and universities to complete their Bachelor's degree. Agreements offer a direct pathway from CLC to partner institutions upon meeting the requirements outlined in the agreement.

Dual admission is a partnership between CLC and a transfer institution that offers special benefits to participants, such as dual advising, and may include tuition discounts and scholarship opportunities.

Articulation agreements represent formal agreements that allow a student to apply credits earned in a specific program at CLC toward advanced standing, equal transfer, guaranteed admission and/or direct entry into a specific program at the four-year institution.

For more information about guaranteed transfer admission, dual admission, and articulation agreements contact the Counseling, Advising and Transfer Center at (847) 543-2060. To view partner colleges and universities visit [www.clcilinois.edu/transferinfo](http://www.clcilinois.edu/transferinfo).

### Transfer Guides

Transfer Guides are created and maintained in partnership with transfer institutions to provide information about general and major-specific transfer courses. Transfer guides offer course recommendations and outline how CLC courses will transfer into specific transfer institutions. Many four year institutions also maintain course equivalency tables that show how CLC courses articulate into their program. To view transfer guides by major and by college, and links to equivalency tables at various colleges and universities, please visit [www.clcilinois.edu/transferinfo](http://www.clcilinois.edu/transferinfo).

## Associate Degree Transfer Programs

### Transferology and MyCreditsTransfer

MyCreditsTransfer is a statewide initiative designed to facilitate transfer within Illinois using the nationally available web-based tool, Transferology. Within Transferology students can find out how courses transfer between institutions and how courses satisfy degree requirements at participating Transferology institutions across the nation. For more information about Transferology, contact the Counseling, Advising and Transfer Center or visit: [www.itransfer.org/mycreditstransfer](http://www.itransfer.org/mycreditstransfer).

### Illinois Transfer Compact Agreement: Transfer of Completed Associate Degrees

The Illinois Board of Higher Education view the public community colleges of Illinois as partners with senior colleges and universities in the delivery of the first two years of education beyond high school in this state. A transfer student in good standing, who has completed an associate degree based on baccalaureate-oriented sequences will be considered (a) to have attained junior standing and (b) to have met lower division general education requirements of senior institutions. Students may have to meet institution-wide, mission-related, or particular major general education requirements after transfer. The following Illinois public universities honor the agreement:

- Chicago State University
- Eastern Illinois University
- Governors State University
- Illinois State University
- Northeastern Illinois University
- Northern Illinois University
- Southern Illinois University
- University of Illinois at Springfield
- Western Illinois University

### College Requirements for Associate Degrees that Transfer

Students must meet the following general requirements for Associate degrees that transfer:

- A. Satisfactory completion of the maximum number of credit hours for the respective degree (A.A.; A.S.; A.E.S.; A.A.T. in Secondary Math and A.F.A. in Art or Music);
- B. Completion of at least 15 credit hours at CLC. This does not include credit earned through prior learning such as proficiency examinations or credential review.
- C. Minimum grade point average of 2.00 (C) for all work completed at CLC;
- D. A grade of C or better is required for all English course requirements;
- E. Satisfactory completion of the General Education Requirements for the appropriate degree.

### Special Notations for Associate Degree Requirements

- A. General Education Requirements must be filled with courses with a 1.1 (transfer course) PCS code. An exception of up to six hours of courses with a 1.2 (career course) PCS code may be used as general electives in the degree; however, students should select these courses only after they have verified their transferability with an advisor or their transfer institution. EDU 999 does not count toward this six-hour limit. The PCS code for each course is listed in the course descriptions starting on page 232 of this catalog.
- B. The course taken to fulfill the International/Multicultural Education requirement is not an additional course requirement; it will count toward the Humanities and Fine Arts or the Social and Behavioral Science general education elective.
- C. Except for the International/Multicultural Education requirement, no course may be used to satisfy more than one general education requirement.
- D. Specific electives and total hours vary by degree and program.
- E. Only a limited number of MUS and PED courses may be used towards a degree. Please see course descriptions for courses within these areas for more information.
- F. The following courses cannot be used to satisfy degree requirements and do not count in the grade point average:
  1. Courses with a middle digit of 0: (e.g. ENG 108, ENG 109 and MTH 101);
  2. Adult Education courses with a department prefix of ABE, ADE, ESL, GED or VST;
  3. General Studies courses.

### International/Multicultural Education Requirement (I/M)

The College of Lake County requires students to complete an International/Multicultural Education requirement (I/M). One course used to fulfill a Social Science, Humanities, Fine Arts, or Elective must be selected from the list on the next page. Note: not all I/M courses are Illinois Articulation Initiative (IAI) approved. Not all I/M courses fulfill diversity requirements at transfer schools.

## Philosophy

The goal of the International/Multicultural Education requirement is to help prepare students to:

1. Foster awareness and mutual respect by seeking to understand our own and other people’s cultures, characteristics, histories, conditions, social realities, issues and contributions;
2. Live effectively in an increasingly connected global community;
3. Bring informed multiple perspectives to the work force.

Reflected through this requirement is the recognition that “diversity is an essential and defining characteristic of our nation – of the world – and the conviction that this diversity can enrich all of us if we respect, value, and cultivate it.”

— Janice R. Welsch (1999), *Preface Cultural Diversity: Curriculum, Classroom, and Climate*.

## Requirement

Students pursuing transfer degrees (A.A./A.S./A.E.S./A.A.T./A.F.A.) are required to pass an I/M course that focuses primarily on the underrepresented groups within the United States or on the culture of a society outside the United States. Courses may fulfill a core General Education requirement or elective requirement while at the same time satisfying the international/multicultural emphasis. Students should meet with a counselor/advisor or consult the catalog for appropriate courses.

## I/M Course Criteria

Courses may be in any discipline and will seek to promote a more reasoned understanding of human diversity within the United States or within a society outside the United States. See the lists below for courses that meet the I/M Education requirement criteria.

## Expected Learning Outcomes

Approved I/M courses must demonstrate all of the following learning outcomes. Upon successful completion of an I/M course, students will be able to:

1. Describe the significant conditions and contributions of (a) traditionally underrepresented groups within the United States or (b) of world societies;
2. Develop an informed perspective on (a) traditionally under-represented groups in the United States or (b) world societies;
3. Explore and utilize the information and ideas generated in class to compare and contrast their own background, beliefs, and values with that of others.

*See addendum for corrections to this section.*

## International/Multicultural Education Courses IAI APPROVED

### Humanities and Fine Arts

ARA 222	HUM 121, 122, 126, 128, 129, 140, 141, 221, 226
ART 240, 241, 261	ITL 222
CHI 222	JPN 222
DNC 240	PHI 125, 126, 221
ENG 129, 228, 244, 246, 247	RUS 222
FRN 222	SPA 222, 223, 224
GER 222	THE 123

### Social Sciences

ANT 121, 221, 228	PSC 221, 222
GXS 121, 229	SOC 225, 229
HST 126, 127, 245, 246	

## International/Multicultural Education Courses NOT IAI APPROVED

### Humanities and Fine Arts

ASI 121	HUS 153
CMM 127	LAT 121
ENG 263, 264	PHI 128, 129

### Personal Development

PDS 123
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### Social Sciences

ECO 225	HST 128, 269
EDU 224	PSY 229
GXS 221, 299	SSI 121

## Multiple Transfer Degrees

A College of Lake County student may petition for multiple transfer degrees when applying to graduate. The following requirements must be met:

1. All degree requirements for each degree being sought must be met, and
2. Twelve additional hours of semester credit must be earned at the College of Lake County outside of credits earned toward the first degree. The additional 12 hours of credit may not be applied toward the first degree earned.

Contact a counselor or advisor for more information.

## Petition to Graduate

All students who intend to receive a degree or career certificate must complete a Petition for Graduation form available at [www.clcillinois.edu/petition](http://www.clcillinois.edu/petition) or in the Welcome and One Stop Center, Room B114, Grayslake Campus. The deadline for fall graduation is October 1, spring graduation is February 15, and summer graduation is July 1.

### Math Placement and Prerequisites for Math Courses

Depending on a student's program of study and level of skill in mathematics, he or she will take different math courses. Once a student has determined what math course(s) is/are required for the program of study, the student will need to determine if he or she meets the prerequisite or if additional coursework is required. The flow charts on the next page may help in planning. Where a student starts in the sequence will depend upon the prerequisites he or she meets and/or how he or she scores on the CLC Math Placement Test. Students should see an advisor early in their program to help plan their coursework.

The important thing to remember about placement and prerequisites is that the prerequisite for each course has been developed with the sole purpose of ensuring that students have the skills they need to be successful in the courses they select.

CLC has two types of requirements that affect enrollment in math courses.

- 1) **Basic Algebra Readiness:** Incoming students will need to demonstrate Basic Algebra Readiness before enrolling in certain courses at CLC. These courses may be in math or other science or technology-related fields. In the past, Basic Algebra Readiness was called Math Proficiency. Both terms mean that a student possesses a certain level of competency in arithmetic, which includes problem solving involving integers, fractions, ratios, decimals and percents. See page 390 for a list of the different ways that a student may demonstrate Basic Algebra Readiness.
- 2) **Prerequisites:** Students must also demonstrate that they meet the mathematics prerequisite for the specific course they wish to take.

The best way to identify the prerequisite for a specific math course is read the course description. Course descriptions for math courses begin on page 331. Each course description includes the prerequisite requirements that apply.

In general, keep these guidelines in mind:

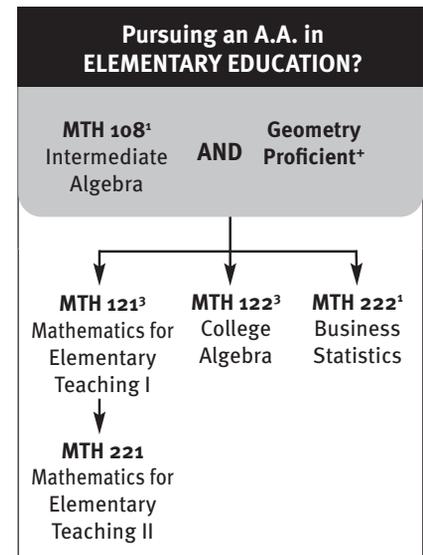
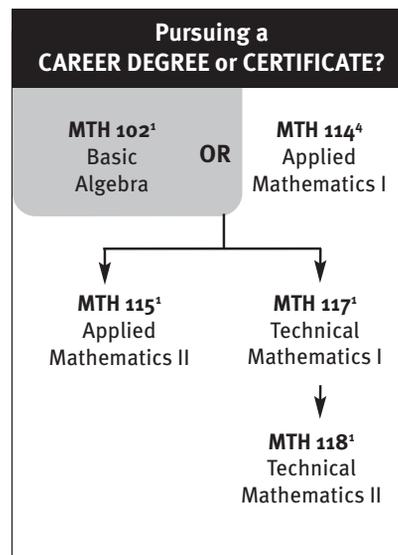
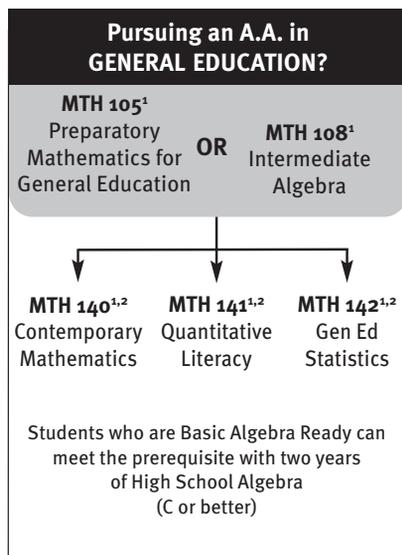
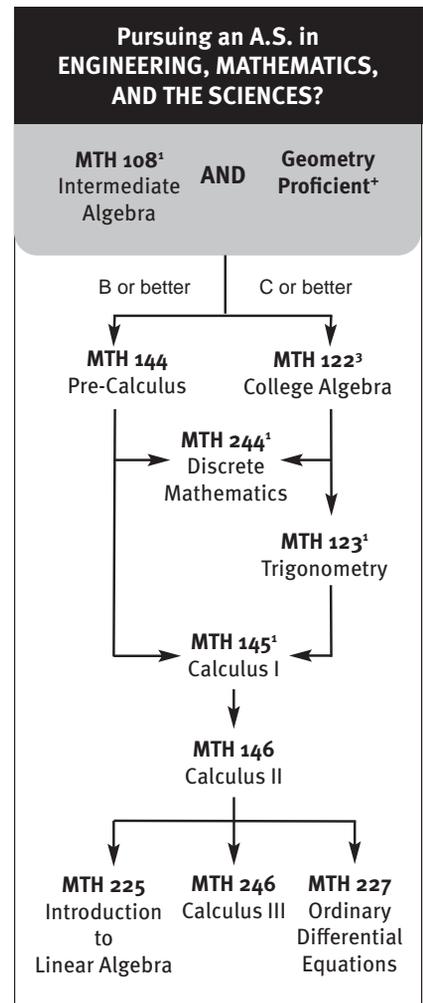
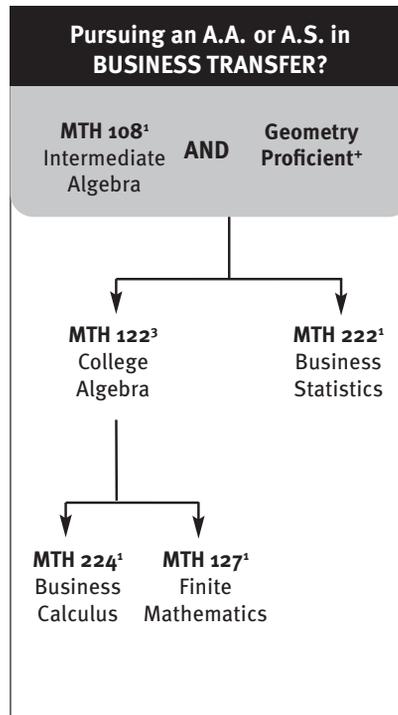
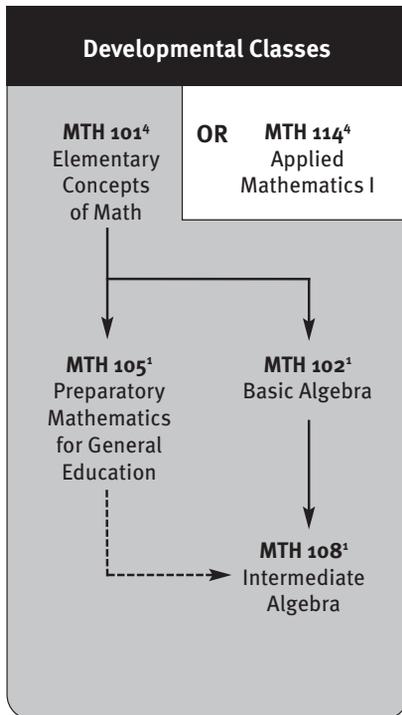
- For many math courses, the prerequisite may be met all or in part by achieving an acceptable score on the math portion of the SAT or ACT tests.
- For many math courses, the prerequisite may be met by achieving an acceptable score on CLC's Math Placement Test.
- College-level math courses require **Geometry Proficiency**. Geometry Proficiency may be demonstrated by submitting any of the following:
  - Submitting a high school transcript showing a C or better in one year of high school geometry or by earning a C or better in Math 1, Math 2 and Math 3
  - or earning a C or better in MTH 104 (Geometry) or MTH 105 (Preparatory Mathematics for General Education)
  - or earning a Math ACT score of 22 or higher or a Math SAT score of 530 or higher on the new SAT test.
- The prerequisites for Contemporary Mathematics (MTH 140) and Quantitative Literacy (MTH 141) may also be met by an evaluation of a high school transcript. The prerequisites may be met by submitting a high school transcript showing completion of two years of high school algebra (Algebra I and Algebra II) and one year of high school geometry with a grade of C or better all six semesters.
- Previous college coursework may also fulfill prerequisites.

**Please see math charts on next page.**

## Math Course Sequence by Program of Study

The sequence of math courses you take depends on your program of study, and your level of skill in mathematics. The following charts can help you determine the sequence of math courses you take as well as the prerequisites required. Where you start in the sequence will be based upon prerequisites and/or your score on the CLC Math Placement Test.

**NOTE:** The courses within the gray boxes are DEVELOPMENTAL CLASSES and do not apply toward any associate degree or career certificate program.



- 1 Prerequisite for this course can be met with CLC Math Placement Test or specific ACT/SAT scores.
- 2 Prerequisite for this course can be met with two years of High School Algebra (C or better) – AND – Basic Algebra Readiness.
- 3 Prerequisite for this course can be met with either a specific ACT/SAT, CLC Math Placement Test score, or MTH 108 (C or better) provided a student is geometry proficient+.
- 4 See an advisor/counselor for information on meeting the prerequisite for this course.
- + Geometry Proficiency may be demonstrated by submitting a high school transcript showing a C or better in one year of high school geometry, by earning a C or better in MTH 104 (Geometry) or MTH 105 (Preparatory Mathematics for General Education), or a Math ACT of 22 or higher.

## Associate Degree Transfer Programs

### Associate in Arts (13AB)

Students may obtain an Associate in Arts degree from the College of Lake County by successfully meeting college requirements and the course requirements outlined below.

The College of Lake County is a participant in the Illinois Articulation Initiative (IAI), a major statewide cooperative agreement that eases the transfer process of the completed Illinois General Education Core Curriculum among participating institutions.

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#### Communication - 9 credit hours

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*A grade of C or better is required for both ENG courses.*

- CMM 121 Fundamentals of Speech (3) **C2 900**
- ENG 121 English Composition I (3) **C1 900**
- ENG 122 English Composition II (3) **C1 901 R or**
- ENG 126 Advanced Composition: Scientific and Technical Communications (3) **C1 901 R**

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#### Social and Behavioral Science - 9 credit hours

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*Select courses from at least two different disciplines i.e. different prefixes.*

- ANT 121+ Introduction to Anthropology (3) **S1 900N**
- ANT 221+ Cultural Anthropology (3) **S1 901N**
- ANT 222 Introduction to Physical Anthropology (3) **S1 902**
- ANT 224 Introduction to Archaeology (3) **S1 903**
- ANT 228+ Cross-Cultural Relationships (3) **S1 904D**
- ECO 221 Principles of Macroeconomics (3) **S3 901**
- ECO 222 Principles of Microeconomics (3) **S3 902**
- GEG 122 Cultural Geography (3) **S4 900N**
- GEG 123 World Regional Geography (3) **S4 900N**
- GXS 121+ Introduction to Gender Studies (3) **S9 900**
- GXS 229+ Sex, Gender, and Power (3) **S7 904D**
- HST 121 History of Western Civilization I (3) **S2 902**
- HST 122 History of Western Civilization II (3) **S2 903**
- HST 126+ History of Contemporary Non-Western Civilization (3) **S2 905N**
- HST 127+ History of Chinese Culture and Society (3) **S2 914N**
- HST 221 United States History to 1876 (3) **S2 900**
- HST 222 United States History 1876 to Present (3) **S2 901**
- HST 245+ History of Latin America to 1825 (3) **S2 910N**
- HST 246+ History of Latin America from 1825 (3) **S2 911N**
- PSC 121 American National Politics (3) **S5 900**
- PSC 122 State and Local Politics (3) **S5 902**
- PSC 221+ Comparative Political Systems (3) **S5 905**
- PSC 222+ International Relations (3) **S5 904N**
- PSY 121 Introduction to Psychology (3) **S6 900**
- PSY 220 Lifespan Development (3) **S6 902**
- PSY 222 Child Growth and Development (3) **S6 903**
- PSY 225 Social Psychology (3) **S8 900**
- PSY 226 Adolescent Psychology (3) **S6 904**
- SOC 121 Introduction to Sociology (3) **S7 900**
- SOC 222 Social Problems (3) **S7 901**
- SOC 224 Sociology of the Family (3) **S7 902**
- SOC 225+ Class, Race, and Gender (3) **S7 903D**
- SOC 229+ Sex, Gender, and Power (3) **S7 904D**

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#### Physical and Life Sciences - 7 credit hours

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*One course must be selected from Physical Science and one course from Life Science. At least one course must be a laboratory science course (L).*

##### Physical Science

- CHM 120L (LAB) Chemical Concepts (4) **P1 902L**
- CHM 121L (LAB) General Chemistry I (5) **P1 902L**
- CHM 140 Chemistry for a Changing World (3) **P1 903**
- CHM 142L (LAB) Chemistry for a Changing World (4) **P1 903L**
- ESC 120L (LAB) Earth Science (4) **P1 905L**
- ESC 121L (LAB) Physical Geology (4) **P1 907L**
- ESC 123 Introduction to Meteorology (3) **P1 905**
- ESC 124 Oceanography (3) **P1 905**
- ESC 125 Geology of National Parks (3) **P1 907**
- ESC 127L (LAB) Introduction to Meteorology (4) **P1 905L**
- ESC 128 Great Mysteries of the Earth (3) **P1 905**
- ESC 129 Severe and Hazardous Weather (3) **P1 905**
- ESC 140L (LAB) Introduction to Astronomy (4) **P1 906L**
- ESC 141 Introduction to Astronomy (3) **P1 906**
- ESC 224 Environmental Geology (3) **P1 908**
- GEG 120L (LAB) Physical Geography (4) **P1 909L**
- GEG 121 Physical Geography (3) **P1 909**
- PHY 120L (LAB) Practical Aspects of Physics (4) **P1 901L**
- PHY 121L (LAB) General Physics I (5) **P1 900L**
- PHY 123L (LAB) Physics for Science and Engineering I (5) **P2 900L**

##### Life Science

- BIO 120L (LAB) Environmental Biology (4) **L1 905L**
- BIO 123L (LAB) Principles of Biology (4) **L1 900L**
- BIO 127 Introduction to Evolution (3) **L1 907**
- BIO 140 Environmental Biology without Lab (3) **L1 905**
- BIO 141L (LAB) Concepts of Biology (4) **L1 900L**
- BIO 149 Genetics and Society (3) **L1 906**
- BIO 161L (LAB) General Biology I (4) **L1 910L**

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#### Mathematics - 3 credit hours

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- MTH 127 Finite Mathematics I (3) **M1 906**
- MTH 140 Contemporary Mathematics (3) **M1 904**
- MTH 141 Quantitative Literacy (3) **M1 901**
- MTH 142 General Education Statistics (3) **M1 902**
- MTH 145 Calculus and Analytic Geometry I (5) **M1 900-1**
- MTH 146 Calculus and Analytic Geometry II (4) **M1 900-2**
- MTH 221 Mathematics for Elementary Teaching II (3) **M1 903**
- MTH 222 Business Statistics (4) **M1 902**
- MTH 224 Calculus for Business and Social Science (4) **M1 900-B**
- MTH 244 Discrete Mathematics (3) **M1 905**
- MTH 246 Calculus and Analytic Geometry III (4) **M1 900-3**

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#### Humanities and Fine Arts - 9 credit hours

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*At least one course must be selected from the Humanities section and one course from the Fine Arts section.*

##### Humanities

- ARA 222+ Intermediate Modern Standard Arabic II (4) **H1 900**
- CHI 222+ Intermediate Chinese II (4) **H1 900**

- ENG 129+ Women in Literature (3) **H3 911D**
- ENG 223 Early American Literature (3) **H3 914**
- ENG 225 Survey of British Literature I (3) **H3 912**
- ENG 226 Survey of British Literature II (3) **H3 913**
- ENG 227 Introduction to Shakespeare (3) **H3 905**
- ENG 228+ World Literature (3) **H3 906**
- ENG 229 20th Century American Literature (3) **H3 915**
- ENG 241 Introduction to Poetry (3) **H3 903**
- ENG 243 Introduction to Fiction (3) **H3 901**
- ENG 244+ Mythology and Fairy Tales (3) **H9 901**
- ENG 246+ Latin American Writers (3) **H3 908N**
- ENG 247+ International Women Writers (3) **H3 911D**
- ENG 249 Children's Literature (3) **H3 918**
- FRN 222+ Intermediate French II (4) **H1 900**
- FRN 223 French Civilization I (3) **H1 900**
- FRN 224 French Civilization II (3) **H1 900**
- GER 222+ Intermediate German II (4) **H1 900**
- GER 224 German Civilization II (3) **H1 900**
- HUM 121+ Humanities: Ancient Times to the Middle Ages (3) **HF 902**
- HUM 122+ Humanities: Renaissance to the Present (3) **HF 903**
- HUM 127 Critical Thinking (3) **H4 906**
- HUM 128+ Introduction to Middle-Eastern Civilizations (3) **H2 903 N**
- HUM 129+ Introduction to East Asian Civilization (3) **HF 904 N**
- HUM 141+ World Humanities 20/21 Century (3) **HF 904 N**
- HUM 221+ American Decades (3) **HF 906D**
- HUM 226+ Women and the Arts (3) **HF 907D**
- ITL 222+ Intermediate Italian II (4) **H1 900**
- ITL 223 Italian Civilization I (3) **H1 900**
- JPN 222+ Intermediate Japanese II (4) **H1 900**
- PHI 121 Introduction to Philosophy (3) **H4 900**
- PHI 122 Logic (3) **H4 906**
- PHI 123 Philosophy of Religion (3) **H4 905**
- PHI 125+ Introduction to Ethics (3) **H4 904**
- PHI 126+ World Religions (3) **H5 904N**
- PHI 221+ Asian Philosophy (3) **H4 903N**
- RUS 222+ Intermediate Russian II (4) **H1 900**
- SPA 222+ Intermediate Spanish II (4) **H1 900**
- SPA 223+ Spanish Civilization I (3) **H1 900**
- SPA 224+ Spanish Civilization II (3) **H1 900**

**Fine Arts**

- ART 121 Introduction to Art (3) **F2 900**
- ART 240+ History of Art I (3) **F2 901**
- ART 241+ History of Art II (3) **F2 902**
- ART 260 History of Photography (3) **F2 904**
- ART 261+ Non-Western Art History (3) **F2 903N**
- DNC 240+ The Art of Dance (3) **F1 906**
- HUM 121+ Humanities: Ancient Times to the Middle Ages (3) **HF 902**
- HUM 122+ Humanities: Renaissance to the Present (3) **HF 903**
- HUM 123 Introduction to Film (3) **F2 908**
- HUM 126+ Introduction to the Performing Arts (3) **F9 900**
- HUM 129+ Introduction to East Asian Civilization (3) **HF 904 N**
- HUM 140+ Introduction to International Film (3) **F2 909**
- HUM 141+ World Humanities 20/21 Century (3) **HF 904N**
- HUM 221+ American Decades (3) **HF 906D**
- HUM 222 Film and Society (3) **F2 908**
- HUM 226+ Women and the Arts (3) **HF 907D**
- MUS 124 Music Appreciation (3) **F1 900**

- MUS 224 Music Literature (3) **F1 902**
- THE 121 Introduction to Theatre I (3) **F1 907**
- THE 123+ Diversity in American Theatre (3) **F1 909D**

**International/Multicultural Requirements**

Include one course in International/Multicultural Education—Choose one course with a + following the course number OR one of the following: ASI 121, CMM 127, ECO 225, EDU 224, ENG 263, 264, GXS 221, 299, HST 128, LAT 121, PDS 123, PHI 128, 129, PSY 229, SSI 121. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts, or Elective requirement. A B.A. degree at many four year colleges may require college level foreign language.

**Area of Concentration/Elective Requirements- 23 credit hours**

- Choose elective courses with a 1.1 (transfer course) PCS code that relate to your intended major. Students should choose electives only after consulting with an Advising Professional. The PCS code for each course is listed in the course descriptions starting on page 232 of this catalog. Up to six hours of courses with a 1.2 (career course) PCS code may be used as general electives in the degree. All 199 courses are exempt from this rule. Students should select these courses only after they have verified their transferability with their Advising Professional or the transfer institution. EDU 999 does not count toward this six-hour limit.
- Students may not receive credit towards degree for both CHM 140 and CHM 142, or both BIO 120 and BIO 140, or both ESC 123 and ESC 127.
- Students with credit for both MTH 122 and MTH 123 will not be given credit for MTH 144. Students may not receive credit towards degree for both (MTH 122 and MTH 144) or (MTH 123 and MTH 144).
- Please review lists of recommended courses for individual programs of study listed on pages 72-120 in this catalog.

<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input type="checkbox"/> _____	<input type="checkbox"/> _____

**Total A.A. Degree Requirements - 60 credit hours**

**Other Graduation Requirements**

- Cumulative CLC GPA of 2.00 or higher
- Completion of at least 15 credit hours at CLC
- Petition to Graduate:** The Petition to Graduate form must be submitted to the Welcome and One-Stop Center to have your degree processed. It can be found online at [www.clcillinois.edu/petition](http://www.clcillinois.edu/petition). Contact Admissions for more information at (847) 543-2061.

## Associate in Science (11AB)

The Associate in Science degree is designed to parallel the first two years of a science-related baccalaureate degree program. Students complete freshman and sophomore level courses for majors in such areas as biology, chemistry, physics and related professional fields. Since differences in course requirements exist at different universities and in different science disciplines within the same university, it is important that students work closely with a CLC Counselor and their transfer school to choose appropriate courses. Completion of the A.S. degree does not fulfill the requirements of the Illinois Articulation Initiative General Education Core Curriculum (IAI GECC). Many science majors are highly structured and require extensive sequential lower-division mathematics and science courses. In order to take courses required for the major in a similar pattern to those of the freshman and sophomore students at a university, some general education courses are postponed until after transfer. Students then either complete the general education requirements of the transfer institution or are given the opportunity to complete the IAI.

### Communication - 9 credit hours

*A grade of C or better is required for both ENG courses.*

<input type="checkbox"/>	CMM	121	Fundamentals of Speech (3) <b>C2 900</b>
<input type="checkbox"/>	ENG	121	English Composition I (3) <b>C1 900</b>
<input type="checkbox"/>	ENG	122	English Composition II (3) <b>C1 901 R or</b>
<input type="checkbox"/>	ENG	126	Advanced Composition: Scientific and Technical Communications (3) <b>C1 901 R</b>

### Social and Behavioral Science - 6 credit hours

*Select courses from at least two different disciplines i.e. different prefixes.*

<input type="checkbox"/>	ANT	121+	Introduction to Anthropology (3) <b>S1 900N</b>
<input type="checkbox"/>	ANT	221+	Cultural Anthropology (3) <b>S1 901N</b>
<input type="checkbox"/>	ANT	222	Introduction to Physical Anthropology (3) <b>S1 902</b>
<input type="checkbox"/>	ANT	224	Introduction to Archaeology (3) <b>S1 903</b>
<input type="checkbox"/>	ANT	228+	Cross-Cultural Relationships (3) <b>S1 904D</b>
<input type="checkbox"/>	ECO	221	Principles of Macroeconomics (3) <b>S3 901</b>
<input type="checkbox"/>	ECO	222	Principles of Microeconomics (3) <b>S3 902</b>
<input type="checkbox"/>	GEG	122	Cultural Geography (3) <b>S4 900N</b>
<input type="checkbox"/>	GEG	123	World Regional Geography (3) <b>S4 900N</b>
<input type="checkbox"/>	GXS	121+	Introduction to Gender Studies (3) <b>S9 900</b>
<input type="checkbox"/>	GXS	229+	Sex, Gender, and Power (3) <b>S7 904D</b>
<input type="checkbox"/>	HST	121	History of Western Civilization I (3) <b>S2 902</b>
<input type="checkbox"/>	HST	122	History of Western Civilization II (3) <b>S2 903</b>
<input type="checkbox"/>	HST	126+	History of Contemporary Non-Western Civilization (3) <b>S2 905N</b>
<input type="checkbox"/>	HST	127+	History of Chinese Culture and Society (3) <b>S2 914N</b>
<input type="checkbox"/>	HST	221	United States History to 1876 (3) <b>S2 900</b>
<input type="checkbox"/>	HST	222	United States History 1876 to Present (3) <b>S2 901</b>
<input type="checkbox"/>	HST	245+	History of Latin America to 1825 (3) <b>S2 910N</b>
<input type="checkbox"/>	HST	246+	History of Latin America from 1825 (3) <b>S2 911N</b>
<input type="checkbox"/>	PSC	121	American National Politics (3) <b>S5 900</b>
<input type="checkbox"/>	PSC	122	State and Local Politics (3) <b>S5 902</b>
<input type="checkbox"/>	PSC	221+	Comparative Political Systems (3) <b>S5 905</b>

<input type="checkbox"/>	PSC	222+	International Relations (3) <b>S5 904N</b>
<input type="checkbox"/>	PSY	121	Introduction to Psychology (3) <b>S6 900</b>
<input type="checkbox"/>	PSY	220	Lifespan Development (3) <b>S6 902</b>
<input type="checkbox"/>	PSY	222	Child Growth and Development (3) <b>S6 903</b>
<input type="checkbox"/>	PSY	225	Social Psychology (3) <b>S8 900</b>
<input type="checkbox"/>	PSY	226	Adolescent Psychology (3) <b>S6 904</b>
<input type="checkbox"/>	SOC	121	Introduction to Sociology (3) <b>S7 900</b>
<input type="checkbox"/>	SOC	222	Social Problems (3) <b>S7 901</b>
<input type="checkbox"/>	SOC	224	Sociology of the Family (3) <b>S7 902</b>
<input type="checkbox"/>	SOC	225+	Class, Race, and Gender (3) <b>S7 903D</b>
<input type="checkbox"/>	SOC	229+	Sex, Gender, and Power (3) <b>S7 904D</b>

### Physical and Life Sciences - 11 credit hours

*One course must be selected from Physical Science and one course from Life Science. Both courses must be IAI and laboratory science courses (L). A third course should be selected from the Physical Science course list or the Life Science course list or the Additional Science course list.*

#### Physical Science

<input type="checkbox"/>	CHM	120L	(LAB) Chemical Concepts (4) <b>P1 902L</b>
<input type="checkbox"/>	CHM	121L	(LAB) General Chemistry I (5) <b>P1 902L</b>
<input type="checkbox"/>	CHM	142L	(LAB) Chemistry for a Changing World (4) <b>P1 903L</b>
<input type="checkbox"/>	ESC	120L	(LAB) Earth Science (4) <b>P1 905L</b>
<input type="checkbox"/>	ESC	121L	(LAB) Physical Geology (4) <b>P1 907L</b>
<input type="checkbox"/>	ESC	127L	(LAB) Introduction to Meteorology (4) <b>P1 905L</b>
<input type="checkbox"/>	ESC	140L	(LAB) Introduction to Astronomy (4) <b>P1 906L</b>
<input type="checkbox"/>	GEG	120L	(LAB) Physical Geography (4) <b>P1 909L</b>
<input type="checkbox"/>	PHY	120L	(LAB) Practical Aspects of Physics (4) <b>P1 901L</b>
<input type="checkbox"/>	PHY	121L	(LAB) General Physics I (5) <b>P1 900L</b>
<input type="checkbox"/>	PHY	123L	(LAB) Physics for Science and Engineering I (5) <b>P2 900L</b>

#### Life Science

<input type="checkbox"/>	BIO	120L	(LAB) Environmental Biology (4) <b>L1 905L</b>
<input type="checkbox"/>	BIO	123L	(LAB) Principles of Biology (4) <b>L1 900L</b>
<input type="checkbox"/>	BIO	141L	(LAB) Concepts of Biology (4) <b>L1 900L</b>
<input type="checkbox"/>	BIO	161L	(LAB) General Biology I (4) <b>L1 910L</b>

#### Additional Science Course List

- Any BIO, CHM, ESC, GEG, HRT or PHY course with a 1.1 PCS code, excluding GEG 122 and GEG 123. The PCS code for each course is listed in the course descriptions starting on page 232 of this catalog.

### Mathematics - 7 credit hours

*One course MUST be selected from the courses with an IAI number (shown in bold) in order to meet CLC graduation requirements.*

<input type="checkbox"/>	MTH	121	Mathematics for Elementary Teaching (3)
<input type="checkbox"/>	MTH	122	College Algebra (4)
<input type="checkbox"/>	MTH	123	Trigonometry (3)
<input type="checkbox"/>	MTH	127	Finite Mathematics I (3) <b>M1 906</b>
<input type="checkbox"/>	MTH	144	Precalculus (5)
<input type="checkbox"/>	MTH	145	Calculus and Analytic Geometry I (5) <b>M1 900-1</b>
<input type="checkbox"/>	MTH	146	Calculus and Analytic Geometry II (4) <b>M1 900-2</b>
<input type="checkbox"/>	MTH	221	Math for Elementary Teaching II (3) <b>M1 903</b>
<input type="checkbox"/>	MTH	222	Business Statistics (4) <b>M1 902</b>
<input type="checkbox"/>	MTH	224	Calculus for Business and Social Science (4) <b>M1 900B</b>
<input type="checkbox"/>	MTH	227	Ordinary Differential Equations (4)

- MTH 244 Discrete Mathematics (3) **M1 905**  
 MTH 246 Calculus and Analytic  
 Geometry III (4) **M1 900-3**

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### Humanities and Fine Arts - 6 credit hours

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*At least one course must be selected from the Humanities section and one course from the Fine Arts section.*

#### Humanities

- ARA 222+ Intermediate Modern Standard  
 Arabic II (4) **H1 900**  
 CHI 222+ Intermediate Chinese II (4) **H1 900**  
 ENG 129+ Women in Literature (3) **H3 911D**  
 ENG 223 Early American Literature (3) **H3 914**  
 ENG 225 Survey of British Literature I (3) **H3 912**  
 ENG 226 Survey of British Literature II (3) **H3 913**  
 ENG 227 Introduction to Shakespeare (3) **H3 905**  
 ENG 228+ World Literature (3) **H3 906**  
 ENG 229 20th Century American Literature (3) **H3 915**  
 ENG 241 Introduction to Poetry (3) **H3 903**  
 ENG 243 Introduction to Fiction (3) **H3 901**  
 ENG 244+ Mythology and Fairy Tales (3) **H9 901**  
 ENG 246+ Latin American Writers (3) **H3 908N**  
 ENG 247+ International Women Writers (3) **H3 911D**  
 ENG 249 Children's Literature (3) **H3 918**  
 FRN 222+ Intermediate French II (4) **H1 900**  
 FRN 223 French Civilization I (3) **H1 900**  
 FRN 224 French Civilization II (3) **H1 900**  
 GER 222+ Intermediate German II (4) **H1 900**  
 GER 224 German Civilization II (3) **H1 900**  
 HUM 121+ Humanities: Ancient Times  
 to the Middle Ages (3) **HF 902**  
 HUM 122+ Humanities: Renaissance  
 to the Present (3) **HF 903**  
 HUM 127 Critical Thinking (3) **H4 906**  
 HUM 128+ Introduction to Middle-Eastern  
 Civilizations (3) **H2 903 N**  
 HUM 129+ Introduction to East Asian Civilization (3) **HF 904N**  
 HUM 141+ World Humanities 20/21 Century (3) **HF 904 N**  
 HUM 221+ American Decades (3) **HF 906D**  
 HUM 226+ Women and the Arts (3) **HF 907D**  
 ITL 222+ Intermediate Italian II (4) **H1 900**  
 ITL 223 Italian Civilization I (3) **H1 900**  
 JPN 222+ Intermediate Japanese II (4) **H1 900**  
 PHI 121 Introduction to Philosophy (3) **H4 900**  
 PHI 122 Logic (3) **H4 906**  
 PHI 123 Philosophy of Religion (3) **H4 905**  
 PHI 125+ Introduction to Ethics (3) **H4 904**  
 PHI 126+ World Religions (3) **H5 904N**  
 PHI 221+ Asian Philosophy (3) **H4 903N**  
 RUS 222+ Intermediate Russian II (4) **H1 900**  
 SPA 222+ Intermediate Spanish II (4) **H1 900**  
 SPA 223+ Spanish Civilization I (3) **H1 900**  
 SPA 224+ Spanish Civilization II (3) **H1 900**

#### Fine Arts

- ART 121 Introduction to Art (3) **F2 900**  
 ART 240+ History of Art I (3) **F2 901**  
 ART 241+ History of Art II (3) **F2 902**  
 ART 260 History of Photography (3) **F2 904**  
 ART 261+ Non-Western Art History (3) **F2 903N**  
 DNC 240+ The Art of Dance (3) **F1 906**  
 HUM 121+ Humanities: Ancient Times  
 to the Middle Ages (3) **HF 902**  
 HUM 122+ Humanities: Renaissance  
 to the Present (3) **HF 903**

- HUM 123 Introduction to Film (3) **F2 908**  
 HUM 126+ Introduction to the Performing Arts (3) **F9 900**  
 HUM 129+ Introduction to East Asian Civilization (3) **HF 904N**  
 HUM 140+ Introduction to International Film (3) **F2 909**  
 HUM 141+ World Humanities 20/21 Century (3) **HF 904N**  
 HUM 221+ American Decades (3) **HF 906D**  
 HUM 222 Film and Society (3) **F2 908**  
 HUM 226+ Women and the Arts (3) **HF 907D**  
 MUS 124 Music Appreciation (3) **F1 900**  
 MUS 224 Music Literature (3) **F1 902**  
 THE 121 Introduction to Theatre I (3) **F1 907**  
 THE 123+ Diversity in American Theatre (3) **F1 909D**

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### International/Multicultural Requirement

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Include one course in International/Multicultural Education which must be taken from the catalog. Refer to page 53. Courses with + fulfill this requirement.

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### Area of Concentration/Elective Requirements- 21 credit hours

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- Choose elective courses with a 1.1 (transfer course) PCS code that relate to your intended major. Students should choose electives only after consulting with an Advising Professional. The PCS code for each course is listed in the course descriptions starting on page 232 of this catalog.
- Exception:** Up to six hours of courses with a 1.2 (career course) PCS code may be used as general electives in the degree. All 199 courses are exempt from this rule. Students should select these courses only after they have verified their transferability with their Advising Professional or the transfer institution. EDU 999 does not count toward this six-hour limit.
- Students may not receive credit towards degree for both CHM 140 and CHM 142, or both BIO 120 and BIO 140, or both ESC 123 and ESC 127.
- Students with credit for both MTH 122 and MTH 123 will not be given credit for MTH 144. Students may not receive credit towards degree for both (MTH 122 and MTH 144) or (MTH 123 and MTH 144).
- Please review lists of recommended courses for individual programs of study listed on pages 72-120 in this catalog.

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### Total A.S. Degree Requirements - 60 credit hours

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#### Other Graduation Requirements

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- Cumulative CLC GPA of 2.00 or higher  
 Completion of at least 15 credit hours at CLC  
 **Petition to Graduate:** The Petition to Graduate form must be submitted to the Welcome and One-Stop Center to have your degree processed. It can be found online at [www.clcillinois.edu/petition](http://www.clcillinois.edu/petition). Contact Admissions for more information at (847) 543-2061.

## Associate in Engineering Science (12AB)

This program is recommended for students pursuing a **B.S. in Engineering**, including any of the various engineering disciplines (e.g. mechanical, electrical, civil, aeronautical, materials, agricultural, biomedical, chemical, and computer, etc.). The program parallels the first two years of engineering programs at most universities accredited by the Accrediting Board for Engineering and Technology (ABET). Four year schools offering a **B.S. in Engineering** include the University of Illinois at Chicago (UIC), Northern Illinois University (NIU), University of Illinois at Urbana-Champaign (UIUC), Illinois Tech (IIT), Bradley, Southern Illinois University (SIU), Northwestern University, Milwaukee School of Engineering (MSOE), Marquette, Purdue, and more. Upon completion of minimum transfer requirements (which vary by four-year school), CLC Engineering students can transfer to complete their B.S degree at a four-year college or university.

This program is also appropriate for students pursuing a **B.S. in Computer Science with an engineering focus**. Four-year schools offering a B.S. in Computer Science with an engineering focus include University of Illinois at Chicago (UIC), University of Illinois at Urbana-Champaign (UIUC College of Engineering), Illinois Tech (IIT), Southern Illinois University at Carbondale (SIUC) and Southern Illinois University at Edwardsville (SIUE). Students desiring a **B.A. or B.S. in Computer Science with a math or liberal arts focus** may want to pursue the program of study recommended under **Computer** (Associate in Science) on page 80.

Since minor differences in course requirements exist at different universities and in different engineering disciplines within the same university, students are strongly advised to meet with a faculty advisor from the Engineering Department or a CLC counselor, and consult the college catalog and an engineering advisor at their intended transfer institution.

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### Communication - 6 credit hours

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*A grade of C or better is required for both ENG courses.*

- ENG 121 English Composition I (3) **C1 900**
- ENG 122 English Composition II (3) **C1 901 R or**
- ENG 126 Advanced Composition: Scientific and Technical Communications (3) **C1 901 R**

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### Social/Behavioral Sciences, Humanities and Fine Arts - 9 credit hours

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*Select courses from three different disciplines (i.e., different prefixes). At least one course must be selected from the Social and Behavioral Sciences section and one course from either the Humanities or Fine Arts section.*

*Students are recommended to choose courses in consultation with an advisor to meet 4-year engineering school transfer requirements.*

### Social and Behavioral Sciences

- ANT 121+ Introduction to Anthropology (3) **S1 900N**
- ANT 221+ Cultural Anthropology (3) **S1 901N**
- ANT 222 Introduction to Physical Anthropology (3) **S1 902**
- ANT 224 Introduction to Archaeology (3) **S1 903**
- ANT 228+ Cross-Cultural Relationships (3) **S1 904D**
- ECO 221 Principles of Macroeconomics (3) **S3 901**
- ECO 222 Principles of Microeconomics (3) **S3 902**
- GEG 122 Cultural Geography (3) **S4 900N**
- GEG 123 World Regional Geography (3) **S4 900N**
- GXS 121+ Introduction to Gender Studies (3) **S9 900**
- GXS 229+ Sex, Gender, and Power (3) **S7 904D**
- HST 121 History of Western Civilization I (3) **S2 902**
- HST 122 History of Western Civilization II (3) **S2 903**
- HST 126+ History of Contemporary Non-Western Civilization (3) **S2 905N**
- HST 127+ History of Chinese Culture and Society (3) **S2 914N**
- HST 221 United States History to 1876 (3) **S2 900**
- HST 222 United States History 1876 to Present (3) **S2 901**
- HST 245+ History of Latin America to 1825 (3) **S2 910N**
- HST 246+ History of Latin America from 1825 (3) **S2 911N**
- PSC 121 American National Politics (3) **S5 900**
- PSC 122 State and Local Politics (3) **S5 902**
- PSC 221+ Comparative Political Systems (3) **S5 905**
- PSC 222+ International Relations (3) **S5 904N**
- PSY 121 Introduction to Psychology (3) **S6 900**
- PSY 220 Lifespan Development (3) **S6 902**
- PSY 222 Child Growth and Development (3) **S6 903**
- PSY 225 Social Psychology (3) **S8 900**
- PSY 226 Adolescent Psychology (3) **S6 904**
- SOC 121 Introduction to Sociology (3) **S7 900**
- SOC 222 Social Problems (3) **S7 901**
- SOC 224 Sociology of the Family (3) **S7 902**
- SOC 225+ Class, Race, and Gender (3) **S7 903D**
- SOC 229+ Sex, Gender, and Power (3) **S7 904D**

### Humanities

- ARA 222+ Intermediate Modern Standard Arabic II (4) **H1 900**
- CHI 222+ Intermediate Chinese II (4) **H1 900**
- ENG 129+ Women in Literature (3) **H3 911D**
- ENG 223 Early American Literature (3) **H3 914**
- ENG 225 Survey of British Literature I (3) **H3 912**
- ENG 226 Survey of British Literature II (3) **H3 913**
- ENG 227 Introduction to Shakespeare (3) **H3 905**
- ENG 228+ World Literature (3) **H3 906**
- ENG 229 20th Century American Literature (3) **H3 915**
- ENG 241 Introduction to Poetry (3) **H3 903**
- ENG 243 Introduction to Fiction (3) **H3 901**
- ENG 244+ Mythology and Fairy Tales (3) **H9 901**
- ENG 246+ Latin American Writers (3) **H3 908N**
- ENG 247+ International Women Writers (3) **H3 911D**
- FRN 222+ Intermediate French II (4) **H1 900**
- FRN 223 French Civilization I (3) **H1 900**
- FRN 224 French Civilization II (3) **H1 900**
- GER 222+ Intermediate German II (4) **H1 900**
- GER 223 German Civilization I (3) **H1 900**
- GER 224 German Civilization II (3) **H1 900**

- HUM 121+ Humanities: Ancient Times to the Middle Ages (3) **HF 902**
- HUM 122+ Humanities: Renaissance to the Present (3) **HF 903**
- HUM 127 Critical Thinking (3) **H4 906**
- HUM 128+ Introduction to Middle-Eastern Civilizations (3) **H2 903 N**
- HUM 129+ Introduction to East Asian Civilization (3) **HF 904 N**
- HUM 141+ World Humanities 20/21 Century (3) **HF 904N**
- HUM 221+ American Decades (3) **HF 906D**
- HUM 226+ Women and the Arts (3) **HF 907D**
- ITL 222+ Intermediate Italian II (4) **H1 900**
- ITL 223 Italian Civilization I (3) **H1 900**
- JPN 222+ Intermediate Japanese II (4) **H1 900**
- PHI 121 Introduction to Philosophy (3) **H4 900**
- PHI 122 Logic (3) **H4 906**
- PHI 123 Philosophy of Religion (3) **H4 905**
- PHI 125+ Introduction to Ethics (3) **H4 904**
  
- PHI 126+ World Religions (3) **H5 904N**
- PHI 221+ Asian Philosophy (3) **H4 903N**
  
- RUS 222+ Intermediate Russian II (4) **H1 900**
- SPA 222+ Intermediate Spanish II (4) **H1 900**
- SPA 223+ Spanish Civilization I (3) **H1 900**
- SPA 224+ Spanish Civilization II (3) **H1 900**

### Fine Arts

- ART 121 Introduction to Art (3) **F2 900**
- ART 240+ History of Art I (3) **F2 901**
- ART 241+ History of Art II (3) **F2 902**
- ART 260 History of Photography (3) **F2 904**
- DNC 240+ The Art of Dance (3) **F1 906**
- HUM 121+ Humanities: Ancient Times to the Middle Ages (3) **HF 902**
- HUM 122+ Humanities: Renaissance to the Present (3) **HF 903**
- HUM 123 Introduction to Film (3) **F2 908**
- HUM 126+ Introduction to the Performing Arts (3) **F9 900**
- HUM 129+ Introduction to East Asian Civilization (3) **HF 904 N**
- HUM 140+ Introduction to International Film (3) **F2 909**
- HUM 141+ World Humanities 20/21 Century (3) **HF 904N**
- HUM 221+ American Decades (3) **HF 906D**
- HUM 222 Film and Society (3) **F2 908**
- HUM 226+ Women and the Arts (3) **HF 907D**
- MUS 124 Music Appreciation (3) **F1 900**
- MUS 224 Music Literature (3) **F1 902**
- THE 121 Introduction to Theatre I (3) **F1 907**
- THE 123+ Diversity in American Theatre (3) **F1 909D**

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### Physical and Life Sciences - 15 credit hours

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#### Physical Science

- CHM 121L (LAB) General Chemistry I (5) **P1 902L**
- PHY 123L (LAB) Physics for Science and Engineering I (5) **P2 900L**
- PHY 124L (LAB) Physics for Science and Engineering II (5)

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### Mathematics - 16 credit hours

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- MTH 145 Calculus and Analytic Geometry I (5) **M1 900-1**
- MTH 146 Calculus and Analytic Geometry II (4) **M1 900-2**
- MTH 227 Ordinary Differential Equations (3) **MTH 912**
- MTH 246 Calculus and Analytic Geometry III (4) **M1 900-3**

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### Math Computer Science - 3 credit hours

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- MCS 140 Computer Programming for Engineers and Scientists (3) **CS 911**

#### OR

- MCS 141 Computer Science I (3) **CS 911**

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### International/Multicultural Requirement

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Include one course in International/Multicultural Education — Choose one course with a + following the course number. This course can fulfill both the I/M requirement and a Social Science, Humanities, or Fine Arts requirement.

Continued on next page.

## Associate Degree Transfer Programs

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### Area of Concentration/Elective Requirements- 12 credit hours

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Choose 12 credit hours from the following courses.  
See \*\*Recommended Area of Concentration/Technical  
Electives for Specific Engineering Majors below.

EGR	120	Introduction to Engineering .....	1
EGR	121	Engineering Design Graphics <b>EGR 941</b> .....	3
EGR	125	Engineering Statics <b>EGR 942</b> .....	3
EGR	225	Engineering Dynamics <b>EGR 943</b> .....	3
EGR	260	Introduction to Circuit Analysis <b>EGR 931L</b> ..	4
EGR	222	Engineering Mechanics of Materials <b>EGR 945</b> .....	3
EET	223	Introduction to Digital Electronics .....	4
CHM	123	General Chemistry II <b>CHM 912</b> .....	5
CHM	222	Organic Chemistry I <b>CHM 913</b> .....	5
MCS	142	Computer Science II <b>CS 912</b> .....	3
MCS	240	Computer Organization and Architecture .....	3
MTH	225	Introduction to Linear Algebra <b>MTH 911</b> .....	3
MTH	244	Discrete Mathematics <b>M1 905</b> .....	3
PHY	221	Physics for Science and Engineering III .....	4

#### \*\* Recommended Area of Concentration/Technical Electives for Specific Engineering Majors:

These are recommended (not required) electives that students  
can choose from when developing an academic plan of study.

These recommendations align with the IAI Engineering Panel  
recommendations. Students are strongly recommended to  
choose courses in consultation with an advisor to meet  
4-year engineering school transfer requirements.

#### General or Undecided:

EGR 120, 121, 125, 225, 260

#### Biomedical Engineering:

EGR 120, 260, CHM 123, BIO 161

#### Chemical Engineering:

EGR 120, 121, CHM 123, 222

#### Civil Engineering:

EGR 120, 121, 125, 222, 225

#### Computer Science:

EGR 120, MCS 141, 142, 240, MTH 244

#### Electrical/Computer Engineering:

EGR 120, 260, EET 223, MTH 225, 244

#### Industrial Engineering:

EGR 120, 121, 125, 222, 225

#### Materials Engineering:

EGR 120, 121, 125, 222, 225

#### Mechanical Engineering:

EGR 120, 121, 125, 222, 225, 260

**Other:** Consult with CLC advisor or four-year university  
engineering advisor

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### Total A.E.S. Degree Requirements - 61 credit hours

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### Other Graduation Requirements

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- Cumulative CLC GPA of 2.00 or higher
- Completion of at least 15 credit hours at CLC
- Petition to Graduate:** The Petition to Graduate form  
must be submitted to the Welcome and One-Stop Center  
to have your degree processed. It can be found online at  
[www.clcillinois.edu/petition](http://www.clcillinois.edu/petition). Contact Admissions for  
more information at (847) 543-2061.

## Associate in Fine Arts in Art (14AA)

Students may obtain an Associate in Fine Arts in Art degree from the College of Lake County by successfully meeting college requirements and the course requirements outlined below.

The College of Lake County is a participant in the Illinois Articulation Initiative (IAI), a major statewide cooperative agreement that eases the transfer process of the completed Illinois General Education Core.

Curriculum among participating institutions. The Associate in Fine Arts degree, however, is not automatically accepted in whole for transfer at all participating IAI four-year colleges and universities in Illinois; therefore students must work with the institutions in which they intend to transfer to ensure transferability of specific courses.

### Communication - 9 credit hours

*A grade of C or better is required for both ENG courses.*

- CMM 121 Fundamentals of Speech (3) **C2 900**
- ENG 121 English Composition I (3) **C1 900**
- ENG 122 English Composition II (3) **C1 901 R or**
- ENG 126 Advanced Composition: Scientific and Technical Communications (3) **C1 901 R**

### Social and Behavioral Science - 6 credit hours

*Courses must be selected from at least two different disciplines i.e. different prefixes.*

- ANT 121+ Introduction to Anthropology (3) **S1 900N**
- ANT 221+ Cultural Anthropology (3) **S1 901N**
- ANT 222 Introduction to Physical Anthropology (3) **S1 902**
- ANT 224 Introduction to Archaeology (3) **S1 903**
- ANT 228+ Cross-Cultural Relationships (3) **S1 904D**
- ECO 221 Principles of Macroeconomics (3) **S3 901**
- ECO 222 Principles of Microeconomics (3) **S3 902**
- GEG 122 Cultural Geography (3) **S4 900N**
- GEG 123 World Regional Geography (3) **S4 900N**
- GXS 121+ Introduction to Gender Studies (3) **S9 900**
- GXS 229+ Sex, Gender, and Power (3) **S7 904D**
- HST 121 History of Western Civilization I (3) **S2 902**
- HST 122 History of Western Civilization II (3) **S2 903**
- HST 126+ History of Contemporary Non-Western Civilization (3) **S2 905N**
- HST 127+ History of Chinese Culture and Society (3) **S2 914N**
- HST 221 United States History to 1876 (3) **S2 900**
- HST 222 United States History 1876 to Present (3) **S2 901**
- HST 245+ History of Latin America to 1825 (3) **S2 910N**
- HST 246+ History of Latin America from 1825 (3) **S2 911N**
- PSC 121 American National Politics (3) **S5 900**
- PSC 122 State and Local Politics (3) **S5 902**
- PSC 221+ Comparative Political Systems (3) **S5 905**
- PSC 222+ International Relations (3) **S5 904N**
- PSY 121 Introduction to Psychology (3) **S6 900**
- PSY 220 Lifespan Development (3) **S6 902**
- PSY 222 Child Growth and Development (3) **S6 903**
- PSY 225 Social Psychology (3) **S8 900**
- PSY 226 Adolescent Psychology (3) **S6 904**

- SOC 121 Introduction to Sociology (3) **S7 900**
- SOC 222 Social Problems (3) **S7 901**
- SOC 224 Sociology of the Family (3) **S7 902**
- SOC 225+ Class, Race, and Gender (3) **S7 903D**
- SOC 229+ Sex, Gender, and Power (3) **S7 904D**

### Physical and Life Sciences - 7 credit hours

*One course must be selected from Physical Science and one course from Life Sciences. At least one course must be a laboratory science class (L).*

#### Physical Science

- CHM 120L (LAB) Chemical Concepts (4) **P1 902L**
- CHM 121L (LAB) General Chemistry I (5) **P1 902L**
- CHM 140 Chemistry for a Changing World (3) **P1 903**
- CHM 142L (LAB) Chemistry for a Changing World (4) **P1 903L**
- ESC 120L (LAB) Earth Science (4) **P1 905L**
- ESC 121L (LAB) Physical Geology (4) **P1 907L**
- ESC 123 Introduction to Meteorology (3) **P1 905**
- ESC 124 Oceanography (3) **P1 905**
- ESC 125 Geology of National Parks (3) **P1 907**
- ESC 127L (LAB) Introduction to Meteorology (4) **P1 905L**
- ESC 128 Great Mysteries of the Earth (3) **P1 905**
- ESC 129 Severe and Hazardous Weather (3) **P1 905**
- ESC 140L (LAB) Introduction to Astronomy (4) **P1 906L**
- ESC 141 Introduction to Astronomy (3) **P1 906**
- ESC 224 Environmental Geology (3) **P1 908**
- GEG 120L (LAB) Physical Geography (4) **P1 909L**
- GEG 121 Physical Geography (3) **P1 909**
- PHY 120L (LAB) Practical Aspects of Physics (4) **P1 901L**
- PHY 121L (LAB) General Physics I (5) **P1 900L**
- PHY 123L (LAB) Physics for Science and Engineering I (5) **P2 900L**

#### Life Science

- BIO 120L (LAB) Environmental Biology (4) **L1 905L**
- BIO 123L (LAB) Principles of Biology (4) **L1 900L**
- BIO 127 Introduction to Evolution (3) **L1 907**
- BIO 140 Environmental Biology without Lab (3) **L1 905**
- BIO 141L (LAB) Concepts of Biology (4) **L1 900L**
- BIO 149 Genetics and Society (3) **L1 906**
- BIO 161L (LAB) General Biology I (4) **L1 910L**

### Mathematics - 3 credit hours

- MTH 127 Finite Mathematics I (3) **M1 906**
- MTH 140 Contemporary Mathematics (3) **M1 904**
- MTH 141 Quantitative Literacy (3) **M1 901**
- MTH 142 General Education Statistics (3) **M1 902**
- MTH 145 Calculus and Analytic Geometry I (5) **M1 900-1**
- MTH 146 Calculus and Analytic Geometry II (4) **M1 900-2**
- MTH 221 Mathematics for Elementary Teaching II (3) **M1 903**
- MTH 222 Business Statistics (4) **M1 902**
- MTH 224 Calculus for Business and Social Science (4) **M1 900-B**
- MTH 244 Discrete Mathematics (3) **M1 905**
- MTH 246 Calculus and Analytic Geometry III (4) **M1 900-3**

Continued on next page.

## Associate Degree Transfer Programs

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### Humanities and Fine Arts - 6 credit hours

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*At least one course must be selected from the Humanities section and one course from the Fine Arts section.*

#### Humanities

- ARA 222+ Intermediate Modern Standard Arabic II (4) **H1 900**
- CHI 222+ Intermediate Chinese II (4) **H1 900**
- ENG 129+ Women in Literature (3) **H3 911D**
- ENG 223 Early American Literature (3) **H3 914**
- ENG 225 Survey of British Literature I (3) **H3 912**
- ENG 226 Survey of British Literature II (3) **H3 913**
- ENG 227 Introduction to Shakespeare (3) **H3 905**
- ENG 228+ World Literature (3) **H3 906**
- ENG 229 20th Century American Literature (3) **H3 915**
- ENG 241 Introduction to Poetry (3) **H3 903**
- ENG 243 Introduction to Fiction (3) **H3 901**
- ENG 244+ Mythology and Fairy Tales (3) **H9 901**
- ENG 246+ Latin American Writers (3) **H3 908N**
- ENG 247+ International Women Writers (3) **H3 911D**
- ENG 249 Children's Literature (3) **H3 918**
- FRN 222+ Intermediate French II (4) **H1 900**
- FRN 223 French Civilization I (3) **H1 900**
- FRN 224 French Civilization II (3) **H1 900**
- GER 222+ Intermediate German II (4) **H1 900**
- GER 224 German Civilization II (3) **H1 900**
- HUM 121+ Humanities: Ancient Times to the Middle Ages (3) **HF 902**
- HUM 122+ Humanities: Renaissance to the Present (3) **HF 903**
- HUM 127 Critical Thinking (3) **H4 906**
- HUM 128+ Introduction to Middle-Eastern Civilizations (3) **H2 903 N**
- HUM 129+ Introduction to East Asian Civilization (3) **HF 904 N**
- HUM 141+ World Humanities 20/21 Century (3) **HF 904 N**
- HUM 221+ American Decades (3) **HF 906D**
- HUM 226+ Women and the Arts (3) **HF 907D**
- ITL 222+ Intermediate Italian II (4) **H1 900**
- ITL 223 Italian Civilization I (3) **H1 900**
- JPN 222+ Intermediate Japanese II (4) **H1 900**
- PHI 121 Introduction to Philosophy (3) **H4 900**
- PHI 122 Logic (3) **H4 906**
- PHI 123 Philosophy of Religion (3) **H4 905**
- PHI 125+ Introduction to Ethics (3) **H4 904**
- PHI 126+ World Religions (3) **H5 904N**
- PHI 221+ Asian Philosophy (3) **H4 903N**
- RUS 222+ Intermediate Russian II (4) **H1 900**
- SPA 222+ Intermediate Spanish II (4) **H1 900**
- SPA 223+ Spanish Civilization I (3) **H1 900**
- SPA 224+ Spanish Civilization II (3) **H1 900**

#### Fine Arts

- DNC 240+ The Art of Dance (3) **F1 906**
- HUM 121+ Humanities: Ancient Times to the Middle Ages (3) **HF 902**
- HUM 122+ Humanities: Renaissance to the Present (3) **HF 903**
- HUM 123 Introduction to Film (3) **F2 908**
- HUM 126+ Introduction to the Performing Arts (3) **F9 900**
- HUM 129+ Introduction to East Asian Civilization (3) **HF 904 N**
- HUM 140+ Introduction to International Film (3) **F2 909**

- HUM 141+ World Humanities 20/21 Century (3) **HF 904 N**
- HUM 221+ American Decades (3) **HF 906D**
- HUM 222 Film and Society (3) **F2 908**
- HUM 226+ Women and the Arts (3) **HF 907D**
- MUS 124 Music Appreciation (3) **F1 900**
- MUS 224 Music Literature (3) **F1 902**
- THE 121 Introduction to Theatre I (3) **F1 907**
- THE 123+ Diversity in American Theatre (3) **F1 909D**

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### Area of Concentration/Elective Requirements- 30 credit hours

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#### Art Core - 21 credit hours

- ART 122 Two Dimensional Design (3)
- ART 124 Drawing I (3)
- ART 127 Drawing II (3)
- ART 221 Three Dimensional Design (3)
- ART 225 Figure Drawing (3)
- ART 240+ History of Art I (3) **F2 901**
- ART 241+ History of Art II (3) **F2 902**

#### Art Studio Electives- 9 credit hours

- ART 123 Color and Design Techniques (3)
- ART 129 Photography I (3)
- ART 149 Digital Photography I (3)
- ART 222 Computer Art I (3)
- ART 223 Sculpture I (3)
- ART 224 Painting I (3)
- ART 226 Ceramics I (3)
- ART 227 Painting II (3)
- ART 228 Sculpture II (3)
- ART 229 Photography II (3)
- ART 245 Jewelry I (3)
- ART 246 Ceramics II (3)
- ART 249 Digital Photography II (3)

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### International/Multicultural Requirement

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Include one course in International/Multicultural Education—Choose one course with a + following the course number. This course can fulfill both the I/M requirement and a Social Science, Humanities, or Fine Arts requirement. A BA degree at many four-year colleges may require college-level foreign language.

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### Total A.F.A. in Art Degree Requirements - 61 credit hours

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### Other Graduation Requirements

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- Cumulative CLC GPA of 2.00 or higher
- Completion of at least 15 credit hours at CLC
- Petition to Graduate:** The Petition to Graduate form must be submitted to the Welcome and One-Stop Center to have your degree processed. It can be found online at [www.clcillinois.edu/petition](http://www.clcillinois.edu/petition). Contact Admissions for more information at (847) 543-2061.

## Associate in Fine Arts in Music (16AB)

Students may obtain an Associate in Fine Arts in Music Performance degree from the College of Lake County by successfully meeting college requirements and the course requirements outlined below.

The College of Lake County is a participant in the Illinois Articulation Initiative (IAI), a major statewide cooperative agreement that eases the transfer process of the completed Illinois General Education Core Curriculum among participating institutions. The Associate in Fine Arts degree, however, is not automatically accepted in whole for transfer at all participating IAI four-year colleges and universities in Illinois; therefore students must work with the institutions in which they intend to transfer to ensure transferability of specific courses.

### Communication - 9 credit hours

*A grade of C or better is required for both ENG courses.*

- CMM 121 Fundamentals of Speech (3) **C2 900**
- ENG 121 English Composition I (3) **C1 900**
- ENG 122 English Composition II (3) **C1 901 R or**
- ENG 126 Advanced Composition: Scientific and Technical Communications (3) **C1 901 R**

### Social and Behavioral Science - 3 credit hours

- ANT 121+ Introduction to Anthropology (3) **S1 900N**
- ANT 221+ Cultural Anthropology (3) **S1 901N**
- ANT 222 Introduction to Physical Anthropology (3) **S1 902**
- ANT 224 Introduction to Archaeology (3) **S1 903**
- ANT 228+ Cross-Cultural Relationships (3) **S1 904D**
- ECO 221 Principles of Macroeconomics (3) **S3 901**
- ECO 222 Principles of Microeconomics (3) **S3 902**
- GEG 122 Cultural Geography (3) **S4 900N**
- GEG 123 World Regional Geography (3) **S4 900N**
- GXS 121+ Introduction to Gender Studies (3) **S9 900**
- GXS 229+ Sex, Gender and Power (3) **S7 904D**
- HST 121 History of Western Civilization I (3) **S2 902**
- HST 122 History of Western Civilization II (3) **S2 903**
- HST 126+ History of Contemporary Non-Western Civilization (3) **S2 905N**
- HST 127+ History of Chinese Culture and Society (3) **S2 914N**
- HST 221 United States History to 1876 (3) **S2 900**
- HST 222 United States History 1876 to Present (3) **S2 901**
- HST 245+ History of Latin America to 1825 (3) **S2 910N**
- HST 246+ History of Latin America from 1825 (3) **S2 911N**
- PSC 121 American National Politics (3) **S5 900**
- PSC 122 State and Local Politics (3) **S5 902**
- PSC 221+ Comparative Political Systems (3) **S5 905**
- PSC 222+ International Relations (3) **S5 904N**
- PSY 121 Introduction to Psychology (3) **S6 900**
- PSY 220 Lifespan Development (3) **S6 902**
- PSY 222 Child Growth and Development (3) **S6 903**
- PSY 225 Social Psychology (3) **S8 900**
- PSY 226 Adolescent Psychology (3) **S6 904**
- SOC 121 Introduction to Sociology (3) **S7 900**
- SOC 222 Social Problems (3) **S7 901**

- SOC 224 Sociology of the Family (3) **S7 902**
- SOC 225+ Class, Race, and Gender (3) **S7 903D**
- SOC 229+ Sex, Gender and Power (3) **S7 904D**

### Physical and Life Sciences - 7 credit hours

*One course must be selected from Physical Science and one course from Life Sciences. At least one course must be a laboratory science class (L).*

#### Physical Science

- CHM 120L (LAB) Chemical Concepts (4) **P1 902L**
- CHM 121L (LAB) General Chemistry I (5) **P1 902L**
- CHM 140 Chemistry for a Changing World (3) **P1 903**
- CHM 142L (LAB) Chemistry for a Changing World (4) **P1 903L**
- ESC 120L (LAB) Earth Science (4) **P1 905L**
- ESC 121L (LAB) Physical Geology (4) **P1 907L**
- ESC 123 Introduction to Meteorology (3) **P1 905**
- ESC 124 Oceanography (3) **P1 905**
- ESC 125 Geology of National Parks (3) **P1 907**
- ESC 127L (LAB) Introduction to Meteorology (4) **P1 905L**
- ESC 128 Great Mysteries of the Earth (3) **P1 905**
- ESC 129 Severe and Hazardous Weather (3) **P1 905**
- ESC 140L (LAB) Introduction to Astronomy (4) **P1 906L**
- ESC 141 Introduction to Astronomy (3) **P1 906**
- ESC 224 Environmental Geology (3) **P1 908**
- GEG 120L (LAB) Physical Geography (4) **P1 909L**
- GEG 121 Physical Geography (3) **P1 909**
- PHY 120L (LAB) Practical Aspects of Physics (4) **P1 901L**
- PHY 121L (LAB) General Physics I (5) **P1 900L**
- PHY 123L (LAB) Physics for Science and Engineering I (5) **P2 900L**

#### Life Science

- BIO 120L (LAB) Environmental Biology (4) **L1 905L**
- BIO 123L (LAB) Principles of Biology (4) **L1 900L**
- BIO 127 Introduction to Evolution (3) **L1 907**
- BIO 140 Environmental Biology without Lab (3) **L1 905**
- BIO 141L (LAB) Concepts of Biology (4) **L1 900L**
- BIO 149 Genetics and Society (3) **L1 906**
- BIO 161L (LAB) General Biology I (4) **L1 910L**

### Mathematics - 3 credit hours

- MTH 127 Finite Mathematics I (3) **M1 906**
- MTH 140 Contemporary Mathematics (3) **M1 904**
- MTH 141 Quantitative Literacy (3) **M1 901**
- MTH 142 General Education Statistics (3) **M1 902**
- MTH 145 Calculus and Analytic Geometry I (5) **M1 900-1**
- MTH 146 Calculus and Analytic Geometry II (4) **M1 900-2**
- MTH 221 Mathematics for Elementary Teaching II (3) **M1 903**
- MTH 222 Business Statistics (4) **M1 902**
- MTH 224 Calculus for Business and Social Science (4) **M1 900-B**
- MTH 244 Discrete Mathematics (3) **M1 905**
- MTH 246 Calculus and Analytic Geometry III (4) **M1 900-3**

### Humanities and Fine Arts - 6 credit hours

*One course must be selected from the Humanities section and one course from the Fine Arts section.*

Continued on next page.

## Associate Degree Transfer Programs

### Humanities

- ARA 222+ Intermediate Modern Standard Arabic II (4) **H1 900**
- CHI 222+ Intermediate Chinese II (4) **H1 900**
- ENG 129+ Women in Literature (3) **H3 911D**
- ENG 223 Early American Literature (3) **H3 914**
- ENG 225 Survey of British Literature I (3) **H3 912**
- ENG 226 Survey of British Literature II (3) **H3 913**
- ENG 227 Introduction to Shakespeare (3) **H3 905**
- ENG 228+ World Literature (3) **H3 906**
- ENG 229 20th Century American Literature (3) **H3 915**
- ENG 241 Introduction to Poetry (3) **H3 903**
- ENG 243 Introduction to Fiction (3) **H3 901**
- ENG 244+ Mythology and Fairy Tales (3) **H9 901**
- ENG 246+ Latin American Writers (3) **H3 908N**
- ENG 247+ International Women Writers (3) **H3 911D**
- ENG 249 Children's Literature (3) **H3 918**
- FRN 222+ Intermediate French II (4) **H1 900**
- FRN 223 French Civilization I (3) **H1 900**
- FRN 224 French Civilization II (3) **H1 900**
- GER 222+ Intermediate German II (4) **H1 900**
- GER 224 German Civilization II (3) **H1 900**
- HUM 121+ Humanities: Ancient Times to the Middle Ages (3) **HF 902**
- HUM 122+ Humanities: Renaissance to Present (3) **HF 903**
- HUM 127 Critical Thinking (3) **H4 906**
- HUM 128+ Introduction to Middle-Eastern Civilizations (3) **H2 903 N**
- HUM 129+ Introduction to East Asian Civilization (3) **HF 904 N**
- HUM 141+ World Humanities 20/21 Century (3) **HF 904 N**
- HUM 221+ American Decades (3) **HF 906D**
- HUM 226+ Women and the Arts (3) **HF 907D**
- ITL 222+ Intermediate Italian II (4) **H1 900**
- ITL 223 Italian Civilization I (3) **H1 900**
- JPN 222+ Intermediate Japanese II (4) **H1 900**
- PHI 121 Introduction to Philosophy (3) **H4 900**
- PHI 122 Logic (3) **H4 906**
- PHI 123 Philosophy of Religion (3) **H4 905**
- PHI 125+ Introduction to Ethics (3) **H4 904**
- PHI 126+ World Religions (3) **H5 904N**
- PHI 221+ Asian Philosophy (3) **H4 903N**
- RUS 222+ Intermediate Russian II (4) **H1 900**
- SPA 222+ Intermediate Spanish II (4) **H1 900**
- SPA 223+ Spanish Civilization I (3) **H1 900**
- SPA 224+ Spanish Civilization II (3) **H1 900**

### Fine Arts

- ART 121 Introduction to Art (3) **F2 900**
- ART 240+ History of Art I (3) **F2 901**
- ART 241+ History of Art II (3) **F2 902**
- ART 260 History of Photography (3) **F2 904**
- ART 261+ Non-Western Art History (3) **F2 903N**
- DNC 240+ The Art of Dance (3) **F1 906**
- HUM 121+ Humanities: Ancient Times to the Middle Ages (3) **HF 902**
- HUM 122+ Humanities: Renaissance to Present (3) **HF 903**
- HUM 123 Introduction to Film (3) **F2 908**
- HUM 126+ Introduction to the Performing Arts (3) **F9 900**
- HUM 129+ Introduction to East Asian Civilization (3) **HF 904 N**
- HUM 140+ Introduction to International Film (3) **F2 909**
- HUM 141+ World Humanities 20/21 Century (3) **HF 904 N**
- HUM 221+ American Decades (3) **HF 906D**
- HUM 222 Film and Society (3) **F2 908**
- HUM 226+ Women and the Arts (3) **HF 907D**
- THE 121 Introduction to Theatre I (3) **F1 907**
- THE 123+ Diversity in American Theatre (3) **F1 909D**

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### Area of Concentration/Elective

#### Requirements-35 credit hours

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##### Music Theory - 12 credit hours

- MUS 128 Theory of Music I (3)
- MUS 129 Theory of Music II (3)
- MUS 228 Theory of Music III (3)
- MUS 229 Theory of Music IV (3)

##### Aural Skills - 4 credit hours

- MUS 125 Aural Skills I (1)
- MUS 126 Aural Skills II (1)
- MUS 225 Aural Skills III (1)
- MUS 226 Aural Skills IV (1)

##### Keyboard Skills - 4 credit hours

- MUS 145 Piano Class I (1)
- MUS 146 Piano Class II (1)
- MUS 245 Piano Class III (1)
- MUS 246 Piano Class IV (1)

##### Ensemble - 4 credit hours

- MUS 120 Vocal Ensembles (1)
- MUS 123 Wind Ensemble (1)
- MUS 223 Jazz Ensemble (1)

##### Music History - 3 credit hours

- MUS 224 Music Literature (3)

##### Applied Instruction - 8 hours

Choose 4 credit hours from the same 100 level course and 4 credit hours from the same 200 level course. All 8 credit hours must be taken in voice or in one major instrument.

- MUS 141 Applied Music-Voice I (1-2) *and*
- MUS 241 Applied Music-Voice II (1-2)
- MUS 143 Applied Music Piano I (1-2) *and*
- MUS 243 Applied Music-Piano II (1-2)
- MUS 144 Applied Music Jazz Piano I (1-2) *and*
- MUS 244 Applied Music-Jazz Piano II (1-2)
- MUS 160-188 Applied Music Instrument I (1-2) *and*
- MUS 260-288 Applied Music Instrument II (1-2)

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### International/Multicultural Requirement

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Include one course in International/Multicultural Education—Choose one course with a + following the course number. This course can fulfill both the I/M requirement and a Social Science, Humanities, or Fine Arts requirement.

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### Total A.F.A. in Music Degree

#### Requirements - 63 credit hours

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### Other Graduation Requirements

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- Cumulative CLC GPA of 2.00 or higher
- Completion of at least 15 credit hours at CLC
- Petition to Graduate:** The Petition to Graduate form must be submitted to the Welcome and One-Stop Center to have your degree processed. It can be found online at [www.clcillinois.edu/petition](http://www.clcillinois.edu/petition). Contact Admissions for more information at (847) 543-2061.

## Associate in Teaching Secondary Mathematics (17AB)

Students may obtain an Associate in Arts in Teaching Secondary Mathematics degree from the College of Lake County by successfully meeting college requirements and the course requirements outlined below.

The College of Lake County is a participant in the Illinois Articulation Initiative (IAI), a major statewide cooperative agreement that eases the transfer process of the completed Illinois General Education Core Curriculum among participating institutions. The Associate in Arts in Teaching Secondary Mathematics degree, however, is not automatically accepted in whole for transfer at all participating IAI four-year colleges and universities in Illinois; therefore students must work with their intended transfer institutions to ensure transferability of specific courses. Students should also check with their intended transfer school regarding specific constitution examination requirements.

Students must pass the Illinois Test of Academic Proficiency in order to be awarded the A.A.T. degree.

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### Communication - 9 credit hours

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*A grade of C or better is required for both ENG courses.*

- CMM 121 Fundamentals of Speech (3) **C2 900**
- ENG 121 English Composition I (3) **C1 900**
- ENG 122 English Composition II (3) **C1 901 R or**
- ENG 126 Advanced Composition: Scientific and Technical Communications (3) **C1 901 R**

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### Social and Behavioral Science - 9 credit hours

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- PSY 121 Introduction to Psychology (3) **S6 900**
- PSY 226 Adolescent Development (3) **S6 904**

#### One other course from the list below:

- ANT 121+ Introduction to Anthropology (3) **S1 900N**
- ANT 221+ Cultural Anthropology (3) **S1 901N**
- ANT 222 Introduction to Physical Anthropology (3) **S1 902**
- ANT 224 Introduction to Archaeology (3) **S1 903**
- ANT 228+ Cross-Cultural Relationships (3) **S1 904D**
- ECO 221 Principles of Macroeconomics (3) **S3 901**
- ECO 222 Principles of Microeconomics (3) **S3 902**
- GEG 122 Cultural Geography (3) **S4 900N**
- GEG 123 World Regional Geography (3) **S4 900N**
- HST 121 History of Western Civilization I (3) **S2 902**
- HST 122 History of Western Civilization II (3) **S2 903**

- HST 126+ History of Contemporary Non-Western Civilization (3) **S2 905N**
- HST 127+ History of Chinese Culture and Society (3) **S2 914N**
- HST 221 United States History to 1876 (3) **S2 900**
- HST 222 United States History 1876 to Present (3) **S2 901**
- HST 245+ History of Latin America to 1825 (3) **S2 910N**
- HST 246+ History of Latin America from 1825 (3) **S2 911N**
- PSC 121 American National Politics (3) **S5 900**
- PSC 122 State and Local Politics (3) **S5 902**
- PSC 221+ Comparative Political Systems (3) **S5 905**
- PSC 222+ International Relations (3) **S5 904N**

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### Physical and Life Sciences - 9 credit hours

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- BIO 161L (LAB) General Biology I (4) **L1 910L**
- PHY 123 (LAB) Physics for Science and Engineering I (5) **P2 900L**

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### Mathematics - 5 credit hours

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- MTH 145 Calculus and Analytic Geometry I (5) **M1 900-1**

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### Humanities and Fine Arts - 9 credit hours

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- PHI 122 Logic (3) **H4 906**

- Two other courses from the following lists must be completed.
- One course must be selected from the Humanities section and one course from the Fine Arts section.

### Humanities - 3 credit hours minimum

- ARA 222+ Intermediate Modern Standard Arabic II (4) **H1 900**
- CHI 222+ Intermediate Chinese II (4) **H1 900**
- ENG 129+ Women in Literature (3) **H3 911D**
- ENG 223 Early American Literature (3) **H3 914**
- ENG 225 Survey of British Literature I (3) **H3 912**
- ENG 226 Survey of British Literature II (3) **H3 913**
- ENG 227 Introduction to Shakespeare (3) **H3 905**
- ENG 228+ World Literature (3) **H3 906**
- ENG 229 20th Century American Literature (3) **H3 915**
- ENG 241 Introduction to Poetry (3) **H3 903**
- ENG 243 Introduction to Fiction (3) **H3 901**
- ENG 244+ Mythology and Fairy Tales (3) **H9 901**
- ENG 246+ Latin American Writers (3) **H3 908N**
- ENG 247+ International Women Writers (3) **H3 911D**
- ENG 249 Children's Literature (3) **H3 918**
- FRN 222+ Intermediate French II (4) **H1 900**
- FRN 223 French Civilization I (3) **H1 900**
- FRN 224 French Civilization II (3) **H1 900**
- GER 222+ Intermediate German II (4) **H1 900**
- GER 224 German Civilization II (3) **H1 900**
- HUM 121+ Humanities: Ancient Times to the Middle Ages (3) **HF 902**
- HUM 122+ Humanities: Renaissance to the Present (3) **HF 903**

Continued on next page.

## Associate Degree Transfer Programs

- HUM 127 Critical Thinking (3) **H4 906**
- HUM 128+ Introduction to Middle-Eastern Civilizations (3) **H2 903 N**
- HUM 129+ Introduction to East Asian Civilization (3) **HF 904 N**
- HUM 141+ World Humanities 20/21 Century (3) **HF 904 N**
- HUM 221+ American Decades (3) **HF 906D**
- HUM 226+ Women and the Arts (3) **HF 907D**
- ITL 222+ Intermediate Italian II (4) **H1 900**
- ITL 223 Italian Civilization I (3) **H1 900**
- JPN 222+ Intermediate Japanese II (4) **H1 900**
- PHI 121 Introduction to Philosophy (3) **H4 900**
- PHI 122 Logic (3) **H4 906**
- PHI 123 Philosophy of Religion (3) **H4 905**
- PHI 125+ Introduction to Ethics (3) **H4 904**
- PHI 126+ World Religions (3) **H5 904N**
- PHI 221+ Asian Philosophy (3) **H4 903N**
- RUS 222+ Intermediate Russian II (4) **H1 900**
- SPA 222+ Intermediate Spanish II (4) **H1 900**
- SPA 223+ Spanish Civilization I (3) **H1 900**
- SPA 224+ Spanish Civilization II (3) **H1 900**

### Fine Arts—3 credit hours minimum

- ART 121 Introduction to Art (3) **F2 900**
- ART 240+ History of Art I (3) **F2 901**
- ART 241+ History of Art II (3) **F2 902**
- ART 260 History of Photography (3) **F2 904**
- ART 261+ Non-Western Art History (3) **F2 903N**
- DNC 240+ The Art of Dance (3) **F1 906**
- HUM 121+ Humanities: Ancient Times to the Middle Ages (3) **HF 902**
- HUM 122+ Humanities: Renaissance to the Present (3) **HF 903**
- HUM 123 Introduction to Film (3) **F2 908**
- HUM 126+ Introduction to the Performing Arts (3) **F9 900**
- HUM 129+ Introduction to East Asian Civilization (3) **HF 904 N**
- HUM 140+ Introduction to International Film (3) **F2 909**
- HUM 141+ World Humanities 20/21 Century (3) **HF 904 N**
- HUM 221+ American Decades (3) **HF 906D**
- HUM 222 Film and Society (3) **F2 908**
- HUM 226+ Women and the Arts (3) **HF 907D**
- MUS 124 Music Appreciation (3) **F1 900**
- MUS 224 Music Literature (3) **F1 902**
- THE 121 Introduction to Theatre I (3) **F1 907**
- THE 123+ Diversity in American Theatre (3) **F1 909D**

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### Area of Concentration – 21 credit hours

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#### Education:

- EDU 121 Introduction to Teaching (3)
- EDU 222 The Exceptional Child (3)
- EDU 242 Observational/Clinical Experience in Education (1)

#### Mathematics:

- MTH 146 Calculus and Analytic Geometry II (4) **M1 900-2**
- MTH 225 Linear Algebra (3)
- MTH 246 Calculus and Analytic Geometry III (4) **M1 900-3**

#### Math Comp/Sci:

- MCS 140 Computer Programming for Engineers and Scientists (3) **CS 911**

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### International/Multicultural Requirement

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Include one course in International/Multicultural Education—Choose one course with a + following the course number. This course can fulfill both the I/M requirement and a Social Science, Humanities, or Fine Arts requirement.

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### Total A.A.T. in Secondary Mathematics Degree Requirements - 62 credit hours

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### Other Requirements for Awarding the A.A.T. in Secondary Mathematics

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- Successfully pass the ICTS Test of Academic Proficiency (TAP).

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### Other Graduation Requirements

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- Cumulative CLC GPA of 2.00 or higher
- Completion of at least 15 credit hours at CLC
- Petition to Graduate:** The Petition to Graduate form must be submitted to the Welcome and One-Stop Center to have your degree processed. It can be found online at [www.clcillinois.edu/petition](http://www.clcillinois.edu/petition). Contact Admissions for more information at (847) 543-2061.

**Note:** For students wishing to obtain a teaching credential in the State of Illinois, a grade of C or above is compulsory for all coursework required for the teaching credential. This includes courses in the major, all education courses, and required general electives. This is effective for those applying for teacher certification as of 2012 (Illinois State Board of Education).

## Pathways for Transfer Students

Pathways are intended for transfer students who have selected a general area of study, but have not yet determined a specific program within the area of study, and maybe used as a starting guide for the first two semesters. Please schedule an appointment with an academic advisor/counselor to finalize your academic field of study and desired transfer institution prior to selecting your third semester courses. Students who have decided on a specific intended major should refer to the recommended Transfer Degree Areas of Study below.

The following pathways are currently available:

### Business:

- Accounting
- Business Administration
- Economics

### Social Sciences:

- Anthropology
- Gender and Sexuality Studies
- History

### • International Studies

- Political Science
- Psychology
- Sociology

## Transfer Degree Areas of Study

The following list of Areas of Study help students plan their individual transfer program. Course lists are patterned after the degree requirements in the previous section. Different programs can be developed to meet the requirements of either the A.A. or A.S. degree that will successfully transfer to a four-year school. Students should use the guidelines as a starting point and work together with a counselors and transfer institution to build a transfer degree program appropriate for them. Transfer degree areas of study are included for the following divisions. **On the following pages, areas of study are listed in alphabetical order.**

### Biological and Health Sciences Division

#### Room B213, (847) 543-2042

- Agriculture/Crop Science (A.S.) (*see Biological Sciences*)
- Biological Sciences (A.S.)
- Chemistry (A.S.)
- Natural Resource Management (A.S.)  
(*see Biological Sciences*)
- Microbiology (A.S.) (*see Biological Sciences*)
- Physical Education (A.A.)
- Pre-Dentistry (A.A.)
- Pre-Medicine (A.A.)
- Pre-Occupational Therapy (A.S.)
- Pre-Pharmacy (A.A.)
- Pre-Physical Therapy (A.S.)
- Pre-Veterinary Medicine (A.A.)
- Recreation (A.A.)
- Wildlife Management (A.S.) (*see Biological Sciences*)
- Zoology (A.S.) (*see Biological Sciences*)

### Business and Social Sciences Division

#### Room T302, (847) 543-2047

- Accounting (A.A.)
- Anthropology (A.A.)
- Business Administration (A.A.)
- Computer Information Technology (A.S.)
- Criminal Justice (A.A.)
- Early Childhood Education (A.A.)
- Economics (A.A.)
- Elementary Education (A.A.)
- Gender and Sexuality Studies (A.A.)
- History (A.A.)
- International Studies (A.A.)
- Political Science (A.A.)
- Psychology (A.A.)
- Secondary Education (A.A.)
- Social Work (A.A.)
- Sociology (A.A.)
- Special Education (A.A.)

### Communication Arts, Humanities and Fine Arts Division

#### Room B213, (847) 543-2040

- Art (A.A.)
- Communication (A.A.)
- Dance (A.A.)
- English (A.A.)
- French (A.A.)
- Humanities (A.A.)
- Latin-American Studies (A.A.)
- Music (A.A.)
- Philosophy (A.A.)
- Spanish (A.A.)
- Theatre Performance (A.A.)
- Theatre Technical (A.A.)

### Engineering, Math and Physical Science Division

#### Room T302, (847) 543-2044

- Computer Science (A.S.)
- Earth Science (A.S.)
- Engineering and Computer Science (A.E.S.)
- Geography (A.A.)
- Mathematics (A.S.)
- Physics (A.S.)
- Sustainability (A.A.)(A.S.)
- Teaching in Secondary Mathematics (A.A.T.)

## Business Pathway

### Associate in Arts

#### Plan 13AB

#### Business and Social Sciences Division

Room T302, (847) 543-2047

This pathway is for students who intend to transfer and major in the business area but have not selected a specific field such as Accounting, Business Administration, or Economics. Students who have decided on a specific intended major in these areas should refer to the recommended course of study on pages 72-120.

#### First Semester .....15-19

BUS	121	Introduction to Business	3
MTH		Math Requirement <sup>1</sup>	3-5
ENG	121	English Composition I	3
		Physical Science	3-5
PSY	121	Introduction to Psychology	3

#### Second Semester .....15-18

ENG	122	English Composition II	3
*	MTH	Math Elective <sup>1</sup>	3-5
ECO	221	Principles of Macroeconomics	3
		Life Science <sup>2</sup>	3-4
HUM	121	Humanities: Ancient Times to the Middle Ages <i>or</i>	
HUM	122	Humanities: Renaissance to the Present	3

*Prior to selecting your third semester courses, please schedule an appointment with your academic advisor/counselor to finalize your academic field of study and desired transfer institution. These decisions will impact which elective courses you should select during your second year.*

#### Summer—if needed .....3-5

MTH		Math Elective <sup>1</sup>	3-5
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#### Third Semester.....13-15

ACC	121	Financial Accounting	4
BUS		Business Elective <sup>3</sup>	3
ECO	222	Principles of Microeconomics	3
*	MTH	Math Elective <sup>1</sup>	3-5

#### Fourth Semester.....16-17

ACC	122	Managerial Accounting	4
CMM	121	Fundamentals of Speech	3
BUS		Business Elective <sup>3</sup>	3
		Humanities or Fine Arts Electives	6

#### Total Hours for AA Degree.....60 - 68

\*If needed, depending on entering math level and four-year school requirements; not included in Total Hours for A.A. Degree.

<sup>1</sup> A student should consult an academic advisor/counselor to determine the correct progression of math courses. The math course progression for this degree will vary depending on the student's choice of 4-year institution in which to transfer and math competency prior to enrolling at CLC. This schedule assumes a student will enroll in four semesters of math.

Depending on a student's transfer goals or math competency, a student may need to enroll in additional math courses or may be able to substitute one of the math slots for an elective course in the second or third semester of these schedules.

**Transfer Institution:** While each transfer institution differs in its math requirements, most require a combination of MTH 224 (Business Calculus), MTH 127 (Finite Mathematics) and/or MTH 222 (Business Statistics). In order to qualify for these courses, students must generally also take MTH 122 (College Algebra). **Math Competency:** If a student does not meet the prerequisite to enroll in MTH 122, enrollment in developmental courses of MTH 102 and/or MTH 108 may be required. These courses do not apply toward the requirements of the associate degree.

<sup>2</sup> The Associate in Arts degree requires a student to complete a physical science course and a life science course for at least 7 credits altogether. At least one of these science courses must be a laboratory course.

<sup>3</sup> A student should consult an academic advisor/counselor to determine the most appropriate elective course. Four-year transfer institutions generally differ in their desired elective course. Please select your desired transfer institution and work with an academic advisor to align your elective course with its admittance requirements. Common elective courses may include: BUS 221, BUS 122, BUS 223, BUS 132, CIT 120 or an additional math course

For more information on recommended courses or program specific advising, contact the Business and Social Sciences Division at (847) 543-2047.

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

## Social Sciences Pathway

### Associate in Arts

#### Plan 13AB

#### Business and Social Sciences Division

Room T302, (847) 543-2047

This pathway is for students who intend to transfer and major in the social sciences but have not selected a specific field such as Anthropology, Gender and Sexuality Studies, History, International Studies, Political Science, Psychology, and Sociology. Students who have decided on a specific intended major in these areas should refer to the recommended Course of Study on pages 72-120.

<b>First Semester</b>	.....	<b>15-16</b>
ENG 121	English Composition I.....	3
PSY 121	Introduction to Psychology .....	3
SOC 121	Introduction to Sociology .....	3
	Recommended Fine Arts Course.....	3
	(Choose One)	
	ART 121 Introduction to Art	
	HUM 121 Introduction to Humanities	
	HUM 222 Film and Society	
	Recommended Elective Course <sup>1</sup> .....	2-3

<b>Second Semester</b>	.....	<b>16</b>
ENG 122	English Composition II .....	3
	Recommended Math Course .....	3-4
	(Choose One)	
	MTH 141 Quantitative Literacy	
	MTH 142 General Education Statistics	
	MTH 222 Business Statistics	
ANT 121	Introduction to Anthropology .....	3
	Recommended Elective Course <sup>1</sup> .....	3
	Recommended Elective Course <sup>1</sup> .....	3

*Prior to selecting your third semester courses, please schedule an appointment with your academic advisor/counselor to finalize your academic field of study and desired transfer institution. These decisions will impact which elective courses you should select during your second year.*

<b>Third Semester</b>	.....	<b>15</b>
CMM 121	Fundamentals of Speech .....	3
	Recommended Physical Science Course .....	3-4
	(Choose One)	
	CHM 140 Chemistry for a Changing World	
	ESC 128 Great Mysteries of the Earth	
	GEG 121 Physical Geography	

Recommended Humanities Course .....	3
(Choose One)	
ENG 129 Women in Literature	
ENG 228 World Literature	
ENG 246 Latin American Writers	
ENG 247 International Women Writers	
Recommended Elective Course <sup>1</sup> .....	3
Recommended Elective Course <sup>1</sup> .....	3

<b>Fourth Semester</b>	.....	<b>15</b>
Recommended Life Science Course .....	4-5	
(Choose One)		
BIO 120L Environmental Biology		
BIO123L Principles of Biology		
BIO 161L General Biology <sup>2</sup>		
Recommended Humanities/Fine Arts Course .....	3	
(Choose One)		
HUM 127 Critical Thinking		
HUM 221 American Decades		
PHI 122 Logic		
PHI 125 Introduction to Ethics		
Recommended Elective Course <sup>1</sup> .....	3	
Recommended Elective Course <sup>1</sup> .....	3	
Recommended Elective Course <sup>1</sup> .....	3	

**Total Hours for AA Degree** .....**60-64**

<sup>1</sup> The Courses listed below are recommended for students considering a major in the social sciences.

#### Highly Recommended:

HST 122	History of Western Civilization from 1500
PHI 121	Introduction to Philosophy
PSC 121	American National Politics
PSY 225	Social Psychology
SOC 222	Social Problems

#### Also Recommended:

ANT 221	Cultural Anthropology
ENG 128	Linguistics and Society
GEG 122	Cultural Geography
GEG 123	World Regional Geography
GXS 229	(also SOC 229) Sex, Gender, and Power
HST 223	American Popular Culture
HST 225	American Labor History
PDS 120	Becoming a Successful College Student (2credits)
PDS 122	Career Exploration (1 credit)
PDS 124	Transition to College (1 credit)

<sup>2</sup> Students who intend to transfer and major in psychology should take BIO 161L.

For more information on recommended courses or program specific advising, contact the Business and Social Sciences Division at (847) 543-2047.

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

# Accounting

## Associate in Arts

### Plan 13AB

#### Business and Social Sciences Division

Room T302, (847) 543-2047

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

<b>First Semester (Fall)</b> .....	<b>15-17</b>
BUS 121 Introduction to Business .....	3
MTH <sup>1</sup> Elective .....	3-5
ENG 121 English Composition I.....	3
CIT 120 Introduction to Computers.....	3
PSY 121 Introduction to Psychology .....	3
<b>Second Semester (Spring)</b> .....	<b>15-19</b>
ENG 122 English Composition II .....	3
MTH <sup>1</sup> Elective .....	3-5
ECO 221 Principles of Macroeconomics .....	3
Physical Science <sup>2</sup> .....	3-5
PHI 122 Logic .....	3
<b>Summer</b> .....	<b>3-5</b>
MTH <sup>1</sup> Elective .....	3-5
<b>Third Semester (Fall)</b> .....	<b>16-18</b>
ACC 121 Financial Accounting.....	4
BUS 221 Business Law I .....	3
ECO 222 Principles of Microeconomics.....	3
MTH <sup>1</sup> Elective .....	3-5
Elective <sup>3</sup> .....	3
<b>Fourth Semester (Spring)</b> .....	<b>16-17</b>
ACC 122 Managerial Accounting .....	4
CMM 121 Fundamentals of Speech .....	3
Life Science <sup>2</sup> .....	3-4
HUM 121 Humanities: Ancient Times to the Middle Ages.....	3
Humanities or Fine Arts Elective (I/M) .....	3

Notes: Students who qualify for MTH 224, MTH 127 and MTH 222 can complete this degree in 60 credits.

<sup>1</sup> A student should consult an academic advisor to determine the correct progression of math courses. The math course progression for this degree will vary depending on the student's 1) choice of 4-year institution to which to transfer and 2) math competency prior to enrolling at CLC. This schedule assumes a student will enroll in four semesters of math. Depending on a student's transfer goals or math competency, a student may need to enroll in additional math courses or may be able to substitute one of the math slots for an elective course in the second or third semester of these schedules. Transfer Institution: While each local 4-year transfer institution differs in its math requirements, most require a combination of MTH 224 (Business Calculus), MTH 127 (Finite Mathematics) and/or MTH 222 (Business Statistics). In order to qualify for these courses, students must generally also take MTH 122 (College Algebra). Math Competency: If a student does not meet the prerequisite to enroll in MTH 122, enrollment in developmental courses of MTH 102 and/or MTH 108 may be required. These courses do not apply toward the requirements of the associate degree.

<sup>2</sup> A student should consult an academic advisor to determine the most appropriate elective course. Four-year transfer institutions generally differ in their desired elective course. Please select your desired transfer institution and work with an academic advisor to align your elective course with its admittance requirements. Common elective courses may include: BUS 122, BUS 223, BUS 132, BUS 237 or an additional math course.

For more information on recommended courses or program specific advising, contact the following faculty or the Business and Social Sciences Division at (847) 543-2047.

Jay Chittal / Patrick Stegman / Jeffrey Varblow / Mary Zenner

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

# Anthropology

**Associate in Arts**

**Plan 13AB**

**Business and Social Sciences Division**

**Room T302, (847) 543-2047**

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

<b>First Semester</b> .....	<b>15-16</b>
ENG 121 English Composition I.....	3
MTH 222 Business Statistics <i>or</i>	
MTH 127 Finite Math <i>or</i>	
MTH 142 General Education Statistics .....	3-4
ANT 121 Introduction to Anthropology (elective) .....	3
ECO 221 Principles of Macroeconomics .....	3
ART 240 History of Art I <i>or</i>	
ART 241 History of Art II.....	3
<b>Second Semester</b> .....	<b>16</b>
ENG 122 English Composition II .....	3
GEG 120 Principles of Physical Geography .....	4
HST 126 History of Contemporary	
Non-Western Civilization.....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

<b>Third Semester</b> .....	<b>15-16</b>
CMM 121 Fundamentals of Speech .....	3
Life Science Elective .....	3-4
PHI 126 World Religions.....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

<b>Fourth Semester</b> .....	<b>15</b>
ENG 228 World Literature .....	3
PSC 221 Comparative Political Systems .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

<b>Concentration/Electives</b>	
ANT 121 Introduction to Anthropology .....	3
ANT 221 Cultural Anthropology.....	3
ANT 222 Introduction to Physical Anthropology .....	3
ANT 224 Introduction to Archeology .....	3
ANT 226 Field Methods .....	3
ANT 228 Introduction to Cross-Cultural	
Communication .....	3
Foreign Language .....	4

**Math requirements vary at four-year institutions**

For more information on recommended courses or program specific advising, contact the following faculty or the Business and Social Sciences Division at (847) 543-2047.

Wendy Brown / Scott Palumbo

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

# Art

## Associate in Arts

### Plan 13AB

#### Communication Arts, Humanities and Fine Arts Division

Room B213, (847) 543-2040

#### I. College Requirements<sup>^</sup>

#### II. General Education Requirements .....37

##### A. Communication Arts .....9

CMM 121 Fundamentals of Speech .....3

⊗ ENG 121 English Composition I .....3

⊗ ENG 122 English Composition II .....3

##### B. Social Sciences.....9

Social Science Electives\* .....9

##### C. Physical and Life Sciences .....7

Physical or Life Science with Lab Elective\* .....4

Physical or Life Science without Lab Elective\* .....3

##### D. Mathematics .....3

MTH Elective\* .....3

##### E. Humanities and Fine Arts .....9

Select at least one course from Humanities,  
one course from Fine Arts, and one course  
from either area.

Recommended Courses:

ART 240 History of Art I .....3

ART 241 History of Art II .....3

Humanities Elective\* .....3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language. Note: DNC 240 meets the I/M designation and Fine Arts requirement.

#### IV. Area of Concentration/Elective Requirements .....23

See page 244 for ART course selections.

For more information on recommended courses or program specific advising, contact the following faculty or the Communication Arts, Humanities and Fine Arts Division at (847) 543-2040.

David Bolton / Terry Dixon / Hans Habeger  
Robert Lossmann / Roland Miller

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

## Biological Sciences

### Associate in Science

(Agriculture/Crop Science, Biology, Botany, Cellular and Molecular Biology, Ecology, Microbiology, Natural Resource Management and Zoology) Plan 11AB  
 Biological and Health Sciences Division, Room B213,  
 (847) 543-2042

<b>First Semester</b> .....	<b>15</b>
# BIO 161 General Biology I .....	4
# CHM 121 General Chemistry I .....	5
⊗ ENG 121 English Composition I.....	3
Social and Behavioral Sciences Elective .....	3
<b>Second Semester</b> .....	<b>18</b>
# BIO 162 General Biology II.....	4
# CHM 123 General Chemistry II.....	5
⊗ ENG 122 English Composition II <i>or</i>	
⊗ ENG 126 Advanced Composition: Scientific	
and Technical Composition .....	3
MTH 123 Trigonometry .....	3
Humanities Elective .....	3

<b>Third Semester</b> .....	<b>17</b>
BIO 221 General Zoology .....	4
# CHM 222 Organic Chemistry I .....	5
MTH 145 Calculus and Analytical Geometry I.....	5
CMM 121 Fundamentals of Speech .....	3
<b>Fourth Semester</b> .....	<b>15</b>
BIO 222 General Botany .....	4
# CHM 223 Organic Chemistry II.....	5
Social and Behavioral Science Elective .....	3
Fine Arts Elective .....	3

For more information on recommended courses or program specific advising, contact the following faculty members or the Biological and Health Sciences Division at (847) 543-2042.

Kelly Cartwright / Jason Cashmore / Mark Coykendall  
 Kristi Dameron / Lakshmi Gollapudi / Marsha Hay / Branko Jablanovic / Shane Jones / Elisabeth Martin / Liz O’Grady  
 Bob Remedi / Jaenine Seitz-Partridge / Cynthia Trombino  
 Carol Wismer

RECOMMENDED  
 COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. ^ See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections # Some transfer institutions may accept sequential courses (I and II) only if **both** courses are taken. Check with transfer institution.

## Business Administration

### Associate in Arts

#### Plan 13AB

#### Business and Social Sciences Division

Room T302, (847) 543-2047

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

<b>First Semester</b> .....	<b>15-17</b>
BUS 121 Introduction to Business .....	3
MTH <sup>1</sup> Elective .....	3-5
ENG 121 English Composition I.....	3
CIT 120 Introduction to Computers.....	3
PSY 121 Introduction to Psychology .....	3
<b>Second Semester</b> .....	<b>15-19</b>
ENG 122 English Composition II .....	3
MTH <sup>1</sup> Elective .....	3-5
ECO 221 Principles of Macroeconomics .....	3
Physical Science.....	3-5
PHI 122 Logic .....	3
<b>Summer</b> .....	<b>3-5</b>
MTH <sup>1</sup> Elective .....	3-5
<b>Third Semester</b> .....	<b>16-18</b>
ACC 121 Financial Accounting.....	4
BUS 221 Business Law I .....	3
ECO 222 Principles of Microeconomics.....	3
MTH <sup>1</sup> Elective.....	3-5
Elective <sup>2</sup> .....	3
<b>Fourth Semester</b> .....	<b>16-17</b>
ACC 122 Managerial Accounting .....	4
CMM 121 Fundamentals of Speech .....	3
Life Science .....	3-4
HUM 121 Humanities: Ancient Times to the Middle Ages .....	3
Humanities or Fine Arts Elective .....	3

Notes: Students who qualify for MTH 224, MTH 127 and MTH 222 can complete this degree in 60 credits.

<sup>1</sup> A student should consult an academic advisor to determine the correct progression of math courses. The math course progression for this degree will vary depending on the student's 1) choice of 4-year institution to which to transfer and 2) math competency prior to enrolling at CLC. This schedule assumes a student will enroll in four semesters of math. Depending on a student's transfer goals or math competency, a student may need to enroll in additional math courses or may be able to substitute one of the math slots for an elective course in the second or third semester of these schedules. Transfer Institution: While each local 4-year transfer institution differs in its math requirements, most require a combination of MTH 224 (Business Calculus), MTH 127 (Finite Mathematics) and/or MTH 222 (Business Statistics). In order to qualify for these courses, students must generally also take MTH 122 (College Algebra). Math Competency: If a student does not meet the prerequisite to enroll in MTH 122, enrollment in developmental courses of MTH 102 and/or MTH 108 may be required. These courses do not apply toward the requirements of the associate degree.

<sup>2</sup> A student should consult an academic advisor to determine the most appropriate elective course. Four-year transfer institutions generally differ in their desired elective course. Please select your desired transfer institution and work with an academic advisor to align your elective course with its admittance requirements. Common elective courses may include: BUS 122, BUS 223, BUS 132, BUS 237 or an additional math course.

For more information on recommended courses or program specific advising, contact the following faculty or the Business and Social Sciences Division at (847) 543-2047.

Patty Clark / Robert Dodd / Kent Donewald  
Venkat Krishnamurthy / Lori Oriatti

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

# Chemistry

## Associate in Science

### Plan 11AB

#### Biological and Health Sciences Division

Room B213, (847) 543-2042

#### First Semester .....16

#	CHM 121	General Chemistry I	.....5
⊗	ENG 121	English Composition I	.....3
	MTH 145	Calculus and Analytical Geometry I	.....5
		Fine Arts Elective	.....3

#### Second Semester .....16

#	CHM 123	General Chemistry II	.....5
⊗	ENG 122	English Composition II <i>or</i>	
⊗	ENG 126	Advanced Composition: Scientific and Technical Composition	.....3
	MTH 146	Calculus and Analytical Geometry II	.....4
#	BIO 161	General Biology I	.....4

#### Third Semester .....16

#	CHM 222	Organic Chemistry I	.....5
#	PHY 121	General Physics I	.....5
	CMM 121	Fundamentals of Speech	.....3
		Social Science and Behavioral Science Elective	.....3

#### Fourth Semester .....16

	CHM 223	Organic Chemistry II	.....5
#	PHY 122	General Physics II	.....5
		Social and Behavioral Science Elective	.....3
		Humanities Elective	.....3

For more information on recommended courses or program specific advising, contact the following faculty members or the Biological and Health Sciences Division at (847) 543-2042.

Ahmad Audi / Bruce Moy / Tara Simmons / Jeanne Simonsen  
Mary Urban / Beth Wilson

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. ^ See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections # Some transfer institutions may accept sequential courses (I and II) only if **both** courses are taken. Check with transfer institution.

## Communication

### Associate in Arts

#### Plan 13AB

Communication Arts, Humanities and Fine Arts Division  
Room B213, (847) 543-2040

#### I. College Requirements<sup>^</sup>

#### II. General Education Requirements .....37

##### A. Communication Arts .....9

CMM 121 Fundamentals of Speech .....3

⊗ ENG 121 English Composition I .....3

⊗ ENG 122 English Composition II .....3

##### B. Social Sciences.....9

Social Science Electives\* .....9

##### C. Physical and Life Sciences .....7

Physical or Life Science with Lab Elective\* .....4

Physical or Life Science without Lab Elective\* .....3

##### D. Mathematics .....3

MTH Elective\* .....3

##### E. Humanities and Fine Arts .....9

Recommended Course:

PHI 121 Introduction to Philosophy .....3

Fine Arts Elective\* .....3

Humanities or Fine Arts Elective\* .....3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

#### IV. Area of Concentration/Elective Requirements .....23

Recommended Courses:

CMM 122 Business & Professional Speaking .....3

CMM 123 Dynamics/Small Group Discussion .....3

CMM 124 Oral Interpretation *or*

CMM 128 Interviewing Strategies .....3

CMM 125 Communication and Gender .....3

CMM 127 Intercultural Communication .....3

ENG 123 Mass Communication .....3

ENG 128 Linguistics and Society .....3

ENG 244 Mythology and Fairy Tales .....3

For more information on recommended courses or program specific advising, contact the following faculty or the Communication Arts, Humanities and Fine Arts Division at (847) 543-2040.

Nedra Adams-Soller / Joel Chmara / Fred Gifford  
Lynne Harper / Kari Proft / Rick Soller

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. <sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

# Computer Information Technology

**Associate in Science**

**Plan 11AB**

**Business and Social Sciences Division**

**Room T302, (847) 543-2047**

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Science degree on pages 58-59.

<b>First Semester</b> .....	<b>15-16</b>
CIT 120 Introduction to Computers.....	3
CIT 134 Introduction to Programming Concepts .....	3
ENG 121 English Composition I.....	3
Mathematics Elective <sup>1</sup> .....	3-4
Humanities Elective .....	3
<b>Second Semester</b> .....	<b>14</b>
CIT 141 Programming in C++.....	4
CMM 121 Fundamentals of Speech .....	3
ENG 122 English Composition II <i>or</i>	
ENG 126 Advanced Composition: Scientific and	
Technical Communication .....	3
Life Science with Lab Elective .....	4
<b>Third Semester</b> .....	<b>17-18</b>
ACC 121 Financial Accounting.....	4
CIT 241 Advanced C++ * .....	3
ECO 221 Principles of Macroeconomics <i>or</i>	
ECO 222 Principles of Microeconomics.....	3
Mathematics Elective <sup>1</sup> .....	3-4
Physical Science with Lab Elective .....	4
<b>Fourth Semester</b> .....	<b>13</b>
ACC 122 Managerial Accounting .....	4
Fine Arts Elective .....	3
Physical or Life Science (non-lab) .....	3
Social Science Elective (not Economics) .....	3

\* Certain classes are only offered specific semesters. Check the course scheduling guide.

<sup>1</sup> A student should consult an academic advisor to determine the correct selection of math courses (7 credit hour minimum). The math course selection for this degree will vary depending on the student's 1) choice of 4-year institution to which to transfer and 2) math competency prior to enrolling at CLC. Depending on a student's transfer goals or math competency, a student may need to enroll in additional math courses. Math Competency: If a student does not meet the prerequisite to enroll in MTH 145, lower level math courses may be required. Students should begin taking math courses in the first semester. MTH 102 and MTH 108 do not apply toward the requirements of the associate degree. Students who qualify for MTH 145 can complete this degree in 61 credit hours.

For more information on recommended courses or program specific advising, contact the following faculty or the Business and Social Sciences Division at (847) 543-2047.

Changyi Chen / Dan Dainton / Sanjay Kumar  
John North / Bob Scherbaum

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

## Computer Science

### Associate in Science

#### Plan 11AB

#### Engineering, Math and Physical Sciences Division

Room T302, (847) 543-2044

This program is **recommended** for students pursuing a B.S. or B.A. in Computer Science with a math or liberal arts focus. The following courses are recommended for students who have not decided on a specific four year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine which CLC courses will also meet transfer requirements. Four year schools offering a B.S. or B.A. in Computer Science with a math or liberal arts focus include Loyola, DePaul, Elmhurst, University of Illinois at Urbana-Champaign (UIUC College of Liberal Arts and Sciences) Northern Illinois University (NIU), University of Wisconsin Parkside and Northeastern Illinois University.

To complete any transfer degree, students should select from the general education requirements outlined on page 52. All course prerequisites should be met. Additionally, students are required to select one course from the International/Multicultural list on page 53 to meet graduation requirements.

Students desiring a B.S. in Computer Science with an engineering focus may want to pursue the program of study recommended under Engineering and Computer Science (Associates of Engineering Science) on page 88.

#### First Semester .....15

MCS 141	Computer Science I	4
MTH 144	Precalculus	5
ENG 121	English Composition I	3
HUM 127	Critical Thinking <i>or</i>	
PHI 122	Logic	3

#### Second Semester .....14

MCS 142	Computer Science II	3
MTH 145	Calculus and Analytic Geometry I	5
ENG 122	English Composition II <i>or</i>	
ENG 126	Advanced Composition: Scientific and Technical Communications	3
	Social & Behavioral Sciences Elective	3

#### Third Semester .....15

MCS 240	Computer Organization and Architecture	3
MTH 146	Calculus and Analytic Geometry II	4
PHY 123	Physics for Science and Engineering I	5
CMM 121	Fundamentals of Speech	3

#### Fourth Semester .....16

BIO 120	Environmental Biology <i>or</i>	
BIO 141	Concepts in Biology <i>or</i>	
BIO 161	General Biology I	4
MTH 244	Discrete Mathematics	3
	Fine Arts Elective	3
	Humanities or Fine Arts Elective	3
	Social and Behavioral Sciences Elective	3

For more information on recommended courses or program specific advising, contact the following faculty or the Engineering, Math and Physical Science Division at (847) 543-2044.

Shyam Kurup / Scott Reed / John Sprague

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

# Criminal Justice

**Associate in Arts**  
**Plan 13AB**  
**Business and Social Sciences Division**  
**Room T302, (847) 543-2047**

The following courses are recommended for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

**First Semester .....16**

ENG 121	English Composition I.....	3
MTH 142	General Education Statistics <i>or</i>	
MTH 222	Business Statistics .....	3-4
PSY 121	Introduction to Psychology .....	3
CRJ 121	Introduction to Criminal Justice (elective) .....	3
HUM 127	Critical Thinking .....	3

**Second Semester .....15**

ENG 122	English Composition II .....	3
GEG 121	Physical Geography.....	3
SOC 121	Introduction to Sociology .....	3
CRJ 122	Introduction to Policing (elective).....	3
CRJ 123	Introduction to Criminology (elective) .....	3

**Third Semester .....16**

CMM 121	Fundamentals of Speech .....	3
BIO 120	Environmental Biology .....	4
	Fine Arts Elective .....	3
CRJ 124	Introduction to Corrections (elective) .....	3
CRJ 221	Criminal Law (elective).....	3

**Fourth Semester .....15**

PSC 121	American National Politics .....	3
PHI 125	Introduction to Ethics .....	3
CRJ 222	Criminal Procedural Law (elective) .....	3
CRJ 229	Juvenile Delinquency (elective) .....	3
CRJ 248	Psychology of the Criminal Mind (elective) .....	3

**Math requirements vary at four-year institutions**

For more information on recommended courses or program specific advising, contact the following faculty or the Business and Social Sciences Division at (847) 543-2047.

Javier Alonso / Chris Utecht / Jennifer Hulvat

**RECOMMENDED  
 COURSE OF STUDY**

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

## Dance

### Associate in Arts

#### Plan 13AB

#### Communication Arts, Humanities and Fine Arts Division Room B213, (847) 543-2040

The following courses are recommended for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. To complete any transfer degree, students should select from the general education requirements outlined on page 52. All course prerequisites must be met. Additionally, students are required to select one course from the International/Multicultural list on page 53 to meet graduation requirements.

#### First Semester .....15

DNC	121	Introduction to Ballet I	3
DNC	122	Modern Dance Technique I	3
MUS	124	Introduction to Music	3
# ENG	121	English Composition I	3
		Physical or Life Science without Lab Elective*	3

#### Second Semester .....16

DNC	221	Intermediate Ballet Technique	3
DNC	222	Intermediate Modern Technique	3
DNC	240	The Art of Dance (I/M/Fine Arts)	3
# ENG	122	English Composition II	3
		Physical or Life Science with Lab Elective*	4

#### Third Semester .....16

DNC	125	Elements of Dance Composition I	3
DNC	123	Jazz Technique I	3
CMM	121	Fundamentals of Speech	3
		Math Elective*	3
		Social Science Elective*	3

#### Fourth Semester .....14

DNC	129	Dance Practicum	2
		Dance Elective*	3
		Humanities Elective*	3
		Social Science Electives*	6

#### Concentration/Electives

DNC	126	Dance Forms I	3
DNC	141	Beginning Hip Hop	3
DNC	143	Beginning Tap	3
DNC	160	Teaching Methods I	3
DNC	223	Intermediate Jazz Technique	3
DNC	224	Intermediate Yoga	3
DNC	241	Intermediate Hip Hop	3

For more information on recommended courses or program specific advising, contact the following faculty or the Communication Arts, Humanities and Fine Arts Division at (847) 543-2040.

Valerie Alpert / Therese Crews

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements / # A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

# Early Childhood Education

## Associate in Arts

### Plan 13AB

### Business and Social Sciences Division

Room T302, (847) 543-2047

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

<b>First Semester</b>	<b>.....15</b>
ENG 121 English Composition I.....	3
MTH 121 Math for Elementary Teaching I (elective).....	3
PSY 121 Introduction to Psychology .....	3
ART 121 Introduction to Art <i>or</i>	
ART 240+ History of Art I <i>or</i>	
ART 241+ History of Art II <i>or</i>	
ART 261 History of Photography .....	3
ECE 121 Introduction to Early Childhood Ed* (elective) .....	3
<b>Second Semester</b>	<b>.....16</b>
ENG 122 English Composition II .....	3
MTH 221 Math for Elementary Teaching II .....	3
BIO 120 Environmental Biology <i>or</i>	
BIO 141 Concepts in Biology .....	4
PHI 125+ Introduction to Ethics <i>or</i>	
HUM 221+ American Decades.....	3
ECE 124 Child Development for Educators (elective).....	3
<b>Third Semester</b>	<b>.....16</b>
CMM 121 Fundamentals of Speech .....	3
CHM 142 Chemistry for a Changing World <i>or</i>	
PHY 120 Practical Aspects of Physics .....	4
PSC 121 American National Politics +++ .....	3
MUS 124 Music Appreciation .....	3
Concentration/Elective .....	3
<b>Fourth Semester</b>	<b>.....15</b>
HST 221 US History to 1876 <i>or</i>	
HST 222 US History 1876 to present.....	3
Concentration/Elective .....	3

## Concentration/Electives

* ECE 121 Introduction to Early Childhood Education .....	3
ECE 124 Child Development for Educators.....	3
ECE 141 Health, Safety and Nutrition .....	3
ECE 215 Music Activities for Young Children .....	3
ECE 223 Child, Family & Community .....	3
ECE 229 Language Development and Early Literacy .....	3
ECE 233 Young Children with Special Needs .....	3
ECE 242 Math Activities for Young Children .....	3
EDU 121 Introduction to Teaching .....	3
*** ECE 220 Observation and Assessment .....	3
EDU 222 The Exceptional Child.....	3
EDU 223 Technology in the Classroom .....	3
EDU 224+ Diversity in Schools and Society .....	3
** EDU 242 Observation/Clinical Experience in Education .....	1

- + Choose from these courses to fulfill the I/M requirement. EDU 224 is strongly recommended for this program of study.
- ++ Math requirements vary at four-year institutions.
- +++ PSC 121 is required by most 4-year institutions
- ~ Prerequisite is MTH 121 (3)
- \* Requires 10 hours of observation and fieldwork
- \*\* Requires 30 hours of observation and field experience in a school setting
- \*\*\* Requires 15 hours of observation and field experience in a school setting

This plan benefits students interested in transferring to a four-year college or university to obtain an Illinois State Board of Education teaching license.

A passing score on the Illinois Test of Academic Proficiency (formerly the Illinois Test of Basic Skills) or a current ACT plus Writing test with a score of 22 or higher is required for admission to a four-year college or university school of education. One of these tests should be taken by recent high school graduates after completing 15-30 credit hours of college work. Older students should take the test after completing 40-45 college credit hours. It is recommended that you take ENG 121 and MTH 121 before taking either of these tests.

For students wishing to obtain a teaching license in the State of Illinois, a grade of C or above is compulsory for all coursework required for the teaching license. This includes courses in the major, all education courses, and required general electives. This is effective for those applying for teacher licensure as of 2012, Illinois State Board of Education.

For more information on recommended courses or program specific advising, contact faculty member Diane Wolter or Kathleen Johnston in the Business and Social Sciences Division at (847) 543-2047.

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

## Earth Science



Associate in Science

Plan 11AB

Engineering, Math and Physical Sciences Division

Room T302, (847) 543-2044

### I. College Requirements<sup>^</sup>

### II. General Education Requirements.....39

#### A. Communication Arts.....9

CMM 121 Fundamentals of Speech .....3

⊗ ENG 121 English Composition I .....3

⊗ ENG 122 English Composition II *or*

⊗ ENG 126 Advanced Composition: Scientific  
and Technical Communications .....3

#### B. Social Sciences .....6

Social Science Electives\* .....6

#### C. Physical and Life Sciences .....11

ESC 120 Earth Science .....4

BIO 120 Environmental Biology.....4

#### D. Mathematics .....7

Recommended Course:

MTH 145 Calculus and Analytic Geometry I .....5

#### E. Humanities and Fine Arts .....6

Humanities or Fine Arts Elective\* .....6

### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

### IV. Area of Concentration/Elective Requirements .....21

Recommended Courses:

ESC 121 Physical Geology .....4

ESC 122 Historical Geology .....4

ESC 123 Introduction to Meteorology *or*

ESC 127 Introduction to Meteorology with Lab ....3-4

ESC 124 Oceanography .....3

ESC 125 Geology of the National Parks .....3

ESC 128 Great Mysteries of the Earth.....3

ESC 129 Severe and Hazardous Weather .....3

ESC 140 Introduction to Astronomy with Lab *or*

ESC 141 Introduction to Astronomy .....3-4

ESC 224 Environmental Geology .....3

ESC 226 Field Geology .....3

**Contact the EMPS division for additional elective options from the Mathematics, Physics and Chemistry areas.**

For more information on recommended courses or program specific advising, contact the following faculty or the Engineering, Math and Physical Science Division at (847) 543-2044.

Ryan Cumpston / Eric Priest / Xiaoming Zhai

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

# Economics

## Associate in Arts

### Plan 13AB

#### Business and Social Sciences Division

Room T302, (847) 543-2047

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

#### First Semester .....16-17

ENG 121	English Composition I.....	3
MTH 145	Calculus and Analytic Geometry I <i>or</i>	
MTH 224	Calculus for Business and Social Science .....	4-5
HST 122	History of Western Civilization from 1500.....	3
PHI 121	Introduction to Philosophy .....	3
	Concentration/Elective .....	3

#### Second Semester .....16

ENG 122	English Composition II .....	3
GEG 120	Principles of Physical Geography .....	4
PSC 121	American National Politics .....	3
	Concentration/Elective .....	3
	Concentration/Elective .....	3

#### Third Semester .....15

CMM 121	Fundamentals of Speech .....	3
	Humanities or Fine Arts Elective .....	3
	Concentration/Elective .....	3
	Concentration/Elective .....	3
	Concentration/Elective .....	3

#### Fourth Semester.....15-16

	Fine Arts Elective .....	3
SOC 121	Introduction to Sociology .....	3
	Life Science Elective .....	3-4
	Concentration/Elective .....	3
	Concentration/Elective .....	3

#### Concentration/Electives

ECO 221	Principles of Macroeconomics .....	3
ECO 222	Principles of Microeconomics.....	3
ECO 223	Money and Banking .....	3
ECO 224	Public Finance.....	3
MTH 222	Business Statistics .....	4
PSC 222	International Relations .....	3
	Additional Electives as Needed.....	7

#### Math requirements vary at four-year institutions

For more information on recommended courses or program specific advising, contact the following faculty or the Business and Social Sciences Division at (847) 543-2047.

Chandrea Hopkins / Stefan Mullinax / Tonitta White

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

## Elementary Education

### Associate in Arts

#### Plan 13AB

#### Business and Social Sciences Division

Room T302, (847) 543-2047

The following courses are recommended for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

<b>First Semester</b> .....	<b>15</b>
ENG 121 English Composition I.....	3
MTH 121 Math for Elementary Teaching I (elective).....	3
PSY 121 Introduction to Psychology .....	3
MUS 124 Music Appreciation <i>or</i>	
MUS 224 Music Literature .....	3
EDU 121 Introduction to Teaching (elective).....	3
<b>Second Semester</b> .....	<b>16</b>
ENG 122 English Composition II .....	3
BIO 120 Environmental Biology <i>or</i>	
BIO 141 Concepts in Biology .....	4
MTH 221 Math for Elementary Teaching II .....	3
HST 221 U.S. History to 1876 <i>or</i> .....	3
HST 222 U.S. History 1876 to Present	
EDU 124 Child Development for Educators (elective).....	3
<b>Third Semester</b> .....	<b>16</b>
CMM 121 Fundamentals of Speech .....	3
PHY 120 Practical Aspects of Physics .....	4
ENG 223 Early American Literature <i>or</i>	
ENG 225 Survey of British Literature I <i>or</i>	
ENG 226 Survey of British Literature II <i>or</i>	
ENG 227 Introduction to Shakespeare <i>or</i>	
ENG 228 World Literature <i>or</i>	
ENG 229 American Literature: 20th Century to Present <i>or</i>	
ENG 241 Introduction to Poetry <i>or</i>	
ENG 243 Introduction to Fiction <i>or</i>	
ENG 246 Latin American Writers <i>or</i>	
ENG 247 International Women Writers <i>or</i>	
ENG 249 Children's Literature .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

<b>Fourth Semester</b> .....	<b>15</b>
PSC 121 American National Politics <i>or</i>	
PSC 122 State and Local Politics .....	3
ART 240+ History of Art I <i>or</i>	
ART 241+ History of Art II <i>or</i>	
ART 260 History of Photography .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

#### Concentration/Electives

EDU 121 Introduction to Teaching .....	3
EDU 124 Child Development for Educators.....	3
EDU 222 The Exceptional Child.....	3
EDU 223 Technology in the Classroom .....	3
EDU 224 +Diversity in Schools and Society .....	3
EDU 225 Educational Psychology .....	3
** EDU 242 Observation/Clinical	
Experience in Education .....	3
GXS 121+ Introduction to Gender Studies .....	3
MTH 122 College Algebra.....	4
MTH 142 General Education Statistics .....	3
EDU 299 Special Topics in Education.....	1-3

A B.A. degree at many four-year colleges may also require the following courses or coursework from the following areas of concentration:

ESC 120 Earth Science .....	4
ENG 246 Latin American Writers.....	3
HST 221 U.S. History to 1876 <i>or</i>	
HST 222 U.S. History since 1876 .....	3
HWP 240 Contemporary Health Issues.....	3
PED 220 Physical Education in the	
Elementary School .....	3

Areas of Concentration: Art, English, Foreign Language, Language Arts, Social Studies, Math, Music, or Science. Additional coursework from these areas should be selected in consultation with an EDU advisor.

- + Choose from these courses to fulfill the I/M requirement. EDU 224 is strongly recommended for this program of study.
- \*\* Requires 30 hours of observation and field study in a school setting.

In addition to MTH 121 and 221, some transfer school requirements generally include MTH 122 and MTH 142 or MTH 222, and may require completion of these courses prior to transfer. Therefore it is highly recommended that students consult an advisor at their prospective transfer school in addition to meeting with a CLC advisor or counselor as early as possible

Continued on next page.

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

In order to transfer to a four-year College of Education, teacher candidates must earn a passing score on the Illinois Test of Academic Proficiency (formerly known as the Illinois Basic Skills Test) or a current ACT plus Writing test with a score of 22 or higher. One of these tests should be taken by recent high school graduates after completing 15-30 credit hours of college work. Non-traditional teacher candidates should take the test after completing 40-45 college credit hours. It is recommended that teacher candidates take ENG 121 and MTH 121 before taking either of these tests in order to better prepare themselves for success.

This plan benefits students interested in transferring to a four-year college or university to obtain a Illinois State Board of Education license. This plan may also benefit individuals who are interested in education and schooling but not in the context of the classroom. Regardless, due to recent legislative changes that take effect in 2017, each four-year institution has made changes in its program regarding transfer classes. This recommended plan is meant to be a guide and is contingent on the education program teacher candidates wish to obtain their bachelors/license through after transfer.

Teacher candidates who wish to teach in grades 6-8 or 9-12 should meet with both the CLC advisors and faculty in the education department to better formulate a specific academic plan. In the meantime, those teacher candidates should select electives from a content area in which they want to teach. Concentration areas include Art, English, Foreign Language, Language Arts, Social Studies, Math, Music, Science and Theatre. Again, it is imperative that teacher candidates work concurrently with CLC advisors and education faculty early in their program of study to ensure successful transfer to a four-year institution.

For teacher candidates in all grade levels and content areas wishing to earn a teaching license in the State of Illinois, a grade of a C or above is compulsory for all coursework required for teaching credential. This includes courses in the major, all education courses, and required general electives (2012, Illinois State Board of Education).

For more information on recommended courses, education policy changes or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047.

Kathleen Johnston / Michelle Proctor

RECOMMENDED  
COURSE OF STUDY

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Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

## Engineering and Computer Science

### Associate in Engineering Science

#### Plan 12AB

#### Engineering, Math and Physical Sciences Division

Room T302, (847) 543-2044

This program is **recommended** for students pursuing a **B.S. in Engineering**, including any of the various engineering disciplines (e.g. mechanical, electrical, civil, aeronautical, materials, agricultural, biomedical, chemical, and computer, etc.). The program parallels the first two years of engineering programs at most universities accredited by the Accrediting Board for Engineering and Technology (ABET). Four year schools offering a **B.S. in Engineering** include the University of Illinois at Chicago (UIC), Northern Illinois University (NIU), University of Illinois at Urbana-Champaign (UIUC), Illinois Tech (IIT), Bradley, Southern Illinois University (SIU), Northwestern University, Milwaukee School of Engineering (MSOE), Marquette, Purdue, and more. Upon completion of minimum transfer requirements (which vary by four year school), CLC Engineering students can transfer to complete their B.S degree at a four year college or university.

This program is also appropriate for students pursuing a **B.S. in Computer Science with an engineering focus**. Four year schools offering a B.S. in Computer Science with an engineering focus include University of Illinois at Chicago (UIC), University of Illinois at Urbana-Champaign (UIUC College of Engineering), Illinois Tech (IIT), Southern Illinois University at Carbondale (SIUC) and Southern Illinois University at Edwardsville (SIUE). Students desiring a **B.A. or B.S. in Computer Science with a math or liberal arts focus** may want to pursue the program of study recommended under **Computer Science** (Associate in Science) on page 80.

Since minor differences in course requirements exist at different universities and in different engineering disciplines within the same university, students are strongly advised to meet with a faculty advisor from the Engineering Department or a CLC counselor, and consult the college catalog and an engineering advisor at their intended transfer institution.

<b>First Semester</b> .....	<b>17</b>
MTH 145 Calculus and Analytic Geometry I .....	5
CHM 121 General Chemistry I .....	5
EGR 120 Introduction to Engineering# <i>or</i> Technical Elective .....	1
EGR 121 Engineering Graphics# .....	3
ENG 121 English Composition I .....	3

<b>Second Semester</b> .....	<b>15</b>
MTH 146 Calculus and Analytic Geometry II.....	4
ENG 122 English Composition II <i>or</i> ENG 126 Advanced Composition: Scientific and Technical Communications .....	3
PHY 123 Physics for Science and Engineering I ....	5
Humanities/Fine Arts <i>or</i> Social Science Elective* .....	3

<b>Third Semester</b> .....	<b>15</b>
PHY 124 Physics for Science and Engineering II ..	5
EGR 125 Engineering Statics# <i>or</i> Technical Elective .....	3
MTH 246 Calculus and Analytical Geometry III ....	4
Humanities/Fine Arts <i>or</i> Social Science Elective* .....	3

<b>Fourth Semester</b> .....	<b>15-16</b>
MCS 140 Computer Programming I <i>or</i> MCS 141 Computer Science I.....	3
MTH 227 Differential Equations .....	3
EGR 225 Engineering Dynamics# <i>or</i> Technical Elective .....	3
EGR 260 Introduction to Circuit Analysis# <i>or</i> Technical Elective.....	3-4
Humanities/Fine Arts <i>or</i> Social Science Elective* .....	3

#### Optional Summer Recommendations

(based on the institution you intend to transfer to)

CHM 123 General Chemistry II#.....	5
EGR 222 Engineering Mechanics of Materials# <i>or</i> Technical Elective .....	3
PHY 221 Physics for Science and Engineering III# .....	4

# Select a minimum of 12 credit hours from the technical elective courses. Courses may include those recommended in the semester schedule above or substitute in a different course from the list below.

\* Select courses from three different disciplines (i.e. different prefixes). At least one course must be selected from the Social and Behavioral Sciences section and one course from either the Humanities or Fine Arts section. See page 60 for specific course list. Include one course in International/Multicultural Education. There will be a + following the course number. This course can fulfill both the I/M requirement and a Social Science, Humanities, or Fine Arts requirement.

Continued on next page.

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

**Technical Electives for Specific Engineering Majors below**

EGR 120	Introduction to Engineering .....	1
EGR 121	Engineering Design Graphics .....	3
EGR 125	Engineering Statics .....	3
EGR 225	Engineering Dynamics .....	3
EGR 260	Introduction to Circuit Analysis .....	4
EGR 222	Engineering Mech of Materials.....	3
EET 223	Introduction to Digital Electronics .....	4
CHM 123	General Chemistry II.....	5
CHM 222	Organic Chemistry I .....	5
MCS 142	Computer Science II .....	3
MCS 240	Computer Organization and Architecture .....	3
MTH 225	Introduction to Linear Algebra .....	3
MTH 244	Discrete Mathematics .....	3
PHY 221	Physics for Science and Engineering III .....	4

These are recommended (not required) electives that students can choose from when developing an academic plan of study. These recommendations align with the IAI Engineering Panel recommendations. Students are strongly recommended to choose courses in consultation with an advisor to meet 4-year Engineering school transfer requirements.

**General or Undecided:**

EGR 120, 121, 125, 225, 260

**Biomedical Engineering:**

EGR 120, 260, CHM 123, BIO 161

**Chemical Engineering:**

EGR 120, 121, CHM 123, 222

**Civil Engineering:**

EGR 120, 121, 125, 222, 225

**Computer Science:**

EGR 120, MCS 141, 142, 240, MTH 244

**Electrical/Computer Engineering:**

EET 223, EGR 120, 260, MTH 225, 244

**Industrial Engineering:**

EGR 120, 121, 125, 225, 222

**Materials Engineering:**

EGR 120, 121, 125, 222, 225

**Mechanical Engineering:**

EGR 120, 121, 125, 225, 222, 260

**Courses Offered in Selected Semesters Only**

Course	Fall	Spring	Summer
CMM 222	X	X	
EGR 120	X	X	
EGR 125	X	X	
EGR 222		X	X
EGR 225	X	X	
EGR 260		X	
EET 223	X	X	
MCS 142		X	X
MCS 240	X		
MTH 225		X	X
MTH 244	X	X	
PHY 123	X	X	
PHY 124	X	X	
PHY 221		X	X

Above schedule assumes sufficient enrollment. For more information about this course of study, students should contact the division office.



Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

## English

### Associate in Arts

#### Plan 13AB

#### Communication Arts, Humanities and Fine Arts Division

Room B213, (847) 543-2040

<b>First Semester</b> .....	<b>16</b>
ENG 121 English Composition I .....	3
Humanities & Fine Arts Elective (non-English) .....	3
Social & Behavioral Sciences Elective .....	3
Mathematics Elective .....	3
Foreign Language .....	4
<b>Second Semester</b> .....	<b>16</b>
ENG 122 English Composition II .....	3
ENG Any ENG literature course .....	3
CMM 121 Fundamentals of Speech .....	3
Social and Behavioral Sciences Elective .....	3
Foreign Language .....	4
<b>Third Semester</b> .....	<b>16</b>
ENG Any ENG literature course .....	3
Humanities and Fine Arts Elective (non-English) .....	3
Physical and Life Sciences Elective (non-lab) ..	4
Social and Behavioral Sciences Elective .....	3
General Elective .....	3
<b>Fourth Semester</b> .....	<b>16</b>
ENG Any ENG literature course .....	3
ENG Any ENG writing course .....	3
Physical & Life Sciences Elective (lab) .....	4
Humanities & Fine Arts Elective .....	3
General Elective .....	3

### Potential Foreign Language requirement

The Bachelor of Arts degree at many four-year institutions may require foreign language at the college level. Students who are planning to transfer should meet with a counselor or speak with the admissions office of the transfer school to identify the foreign language requirement for the intended major.

### ENG Literature Courses

ENG 129	Women in Literature (I/M)*
ENG 199	Topics in Literature
ENG 223	Early American Literature
ENG 225	Survey of British Literature I
ENG 226	Survey of British Literature II
ENG 227	Introduction to Shakespeare
ENG 228	World Literature (I/M)*
ENG 229	American Literature: 20th Century to Present
ENG 241	Introduction to Poetry
ENG 243	Introduction to Fiction
ENG 244	Mythology & Fairy Tales (I/M)*
ENG 246	Latin American Writers (I/M)*
ENG 249	Children's Literature

### ENG Writing Courses

ENG 124	Newsriting
ENG 220	Introduction to Scripts for the Screen
ENG 222	Creative Writing
ENG 224	Creative Writing II (fiction, creative non-fiction, poetry)

Please Note: The above Literature and Writing courses can be taken in any order once the ENG 121 prerequisite is completed.

\* I/M indicates a course that meets CLC's International/Multicultural education requirement.

For more information on recommended courses or program specific advising, contact the following faculty or the Communication Arts, Humanities and Fine Arts Division at (847) 543-2040.

Nathan Breen / Katie Dublis

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

# French

## Associate in Arts

### Plan 13AB

Communication Arts, Humanities and Fine Arts Division  
Room B213, (847) 543-2040

#### I. College Requirements<sup>^</sup>

#### II. General Education Requirements .....37

##### A. Communication Arts .....9

- CMM 121 Fundamentals of Speech .....3
- ⊗ ENG 121 English Composition I .....3
- ⊗ ENG 122 English Composition II *or*
- ⊗ ENG 126 Advanced Composition: Scientific and Technical Communications .....3

##### B. Social Sciences.....9

- Recommended Courses:
- ANT 221 Cultural Anthropology .....3
  - ANT 228 Cross Cultural Relationships.....3
  - GEG 122 Cultural Geography *or*
  - GEG 123 World Regional Geography.....3
  - PSY 121 Introduction to Psychology .....3
  - PSY 225 Social Psychology .....3
  - SOC 121 Introduction to Sociology .....3
  - SOC 225 Class, Race and Gender .....3

##### C. Physical and Life Sciences .....7

- Recommended Courses:
- BIO 120 Environmental Biology .....4
  - Physical Science without Lab Elective\* .....3

##### D. Mathematics .....3

- MTH Elective\* .....3

##### E. Humanities and Fine Arts .....9

- Recommended Courses:
- ART 240 History of Art I .....3
  - ART 241 History of Art II *or*
  - HUM 121 Humanities: Ancient Times to the Middle Ages.....3
  - HUM 122 Humanities: Renaissance to the Present .....3
  - HUM 140 Introduction to International Film.....3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language. Recommended Courses: French: FRN 121, 122, 221, 222, 223, 224

#### IV. Area of Concentration/Elective Requirements .....23

- Recommended Courses:
- FRN 121 Beginning Conversational French I
  - FRN 122 Beginning Conversational French II .....4
  - FRN 221 Intermediate French I .....4
  - FRN 222 Intermediate French II.....4
  - FRN 223 French Civilization I .....3
  - FRN 224 French Civilization II .....3
  - Additional Electives as Needed .....5

For more information on recommended courses or program specific advising, contact the following faculty or the Communication Arts, Humanities and Fine Arts Division at (847) 543-2040.

Theresa Ruiz-Velasco / Olivia Yanez

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

## Gender and Sexuality Studies

### Associate in Arts

#### Plan 13AB

#### Business and Social Sciences Division

Room T302, (847) 543-2047

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

<b>First Semester</b> .....	<b>15</b>
ENG 121 English Composition I.....	3
MTH 141 Quantitative Literacy <i>or</i>	
MTH 142 General Education Statistics .....	3
GXS 121 Introduction to Gender Studies .....	3
PHI 125 Introduction to Ethics .....	3
Concentration/Elective .....	3
<b>Second Semester</b> .....	<b>15-16</b>
ENG 122 English Composition II .....	3
BIO 120 Environmental Biology <i>or</i>	
BIO 141 Concepts in Biology.....	3-4
PSY 121 Introduction to Psychology .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
<b>Third Semester</b> .....	<b>15</b>
CMM 121 Fundamentals of Speech .....	3
GXS 229 Sex, Gender, and Power .....	3
HUM 226 Women and the Arts .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

<b>Fourth Semester</b> .....	<b>15</b>
ENG 129 Women in Literature .....	3
Physical Science Elective .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

#### Concentration/Electives

ANT 221 Cultural Anthropology.....	3
ANT 228 Cross Cultural Anthropology .....	3
CMM 125 Communication and Gender .....	3
CMM 127 Intercultural Communication .....	3
ENG 247 International Women Writers .....	3
EWE 121# Introduction to Volunteerism.....	1
GXS 221 Theories of Feminism .....	3
GXS 299 Special Topics in Gender and Sex.....	3
HST 129 History of Women .....	3
PHI 128 Introduction to Social and Political Philosophy.....	3
PHI 129 Philosophy of Gender .....	3
PSY 229 Psychology of Women.....	3
SOC 121 Introduction to Sociology .....	3
SOC 222 Social Problems.....	3
SOC 224 Sociology of the Family .....	3
SOC 225 Class, Race, and Gender .....	3
SWK 121 Introduction to Social Work .....	3
SWK 228 Human Sexuality (cross-listed as PSY 228) .....	3

# Students will volunteer in the CLC Women’s Center.

#### Math requirements vary at four-year institutions.

For more information on recommended courses or program specific advising, contact the following faculty member or the Business and Social Sciences Division at (847) 543-2047.

Suzanne Pryga / Fred Hutchinson / Sonia Olivia / John Tenuto

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

# Geography

Associate in Arts  
 Plan 13AB  
 Engineering, Math and Physical Sciences Division  
 Room T302, (847) 543-2044

**I. College Requirements<sup>^</sup>**

**II. General Education Requirements .....37**

**A. Communication Arts .....9**

CMM 121 Fundamentals of Speech .....3

⊗ ENG 121 English Composition I .....3

⊗ ENG 122 English Composition II .....3

**B. Social Sciences.....9**

Recommended Courses:

ANT 121 Introduction to Anthropology .....3

ECO 221 Principles of Macroeconomics .....3

HST 121 History of Western Civilization  
 to 1500 .....3

**C. Physical and Life Sciences .....7**

Recommended Course:

GEG 120 Principles of Physical Geography .....4

Life Science Elective\* .....3

**D. Mathematics .....3**

Recommended Course+:

MTH 141 Quantitative Literacy *or*

MTH 142 General Education Statistics *or*

MTH 222 Business Statistics .....3-4

**E. Humanities and Fine Arts .....9**

Fine Arts Elective\* .....3

Humanities Elective\* .....3

Humanities or Fine Arts Elective\* .....3

**III. International/Multicultural Requirement (I/M)**

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

**IV. Area of Concentration/Elective Requirements .....23**

Recommended Courses:

GEG 122 Cultural Geography .....3

GEG 123 World Regional Geography.....3

HST 122 History of Western Civilization  
 from 1500.....3

Additional Electives as Needed .....14

+ Math requirements vary at four-year institutions.

For more information on recommended courses or program specific advising, contact faculty member Ty Liles or the EMPS Division at (847) 543-2044.

RECOMMENDED  
 COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.  
<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

## History

### Associate in Arts

#### Plan 13AB

#### Business and Social Sciences Division

Room T302, (847) 543-2047

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

#### First Semester .....15

ENG 121	English Composition I.....	3
MTH 141	Quantitative Literacy <i>or</i>	
MTH 142	General Education Statistics .....	3
ANT 221	Cultural Anthropology.....	3
	Humanities or Fine Arts Elective .....	3
	Concentration/Elective .....	3

#### Second Semester .....16

ENG 122	English Composition II.....	3
BIO 120	Environmental Biology <i>or</i>	
BIO 141	Concepts in Biology .....	4
PHI 121	Introduction to Philosophy .....	3
	Concentration/Elective .....	3
	Concentration/Elective .....	3

#### Third Semester .....15

CMM 121	Fundamentals of Speech .....	3
PSC 121	American National Politics .....	3
	Humanities or Fine Arts Elective .....	3
	Concentration/Elective .....	3
	Concentration/Elective .....	3

#### Fourth Semester .....15

GEG 121	Physical Geography.....	3
ECO 221	Principles of Macroeconomics .....	3
	Concentration/Elective .....	3
	Concentration/Elective .....	3
	Concentration/Elective .....	3

#### Concentration/Electives

GEG 122	Cultural Geography .....	3
HST 121	History of Western Civilization to 1500 .....	3
HST 122	History of Western Civilization from 1500.....	3
HST 141	World History to 1500.....	3
HST 142	World History from 1500 .....	3
HST 221	U.S. History to 1876 .....	3
HST 222	U.S. History 1876 to present.....	3
	Additional Electives as Needed	

For more information on recommended courses or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047.

Josephine Faulk / Gregory Gordon / David Groeninger  
Phyllis Soybel

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

# Humanities

Associate in Arts  
 Plan 13AB  
 Communication Arts, Humanities and Fine Arts Division  
 Room B213, (847) 543-2040

**I. College Requirements<sup>^</sup>**

**II. General Education Requirements .....37**

**A. Communication Arts .....9**

    CMM 121 Fundamentals of Speech .....3

    ⊗ ENG 121 English Composition I .....3

    ⊗ ENG 122 English Composition II .....3

**B. Social Sciences.....9**

    Recommended Courses:

    ANT 221 Cultural Anthropology .....3

    HST 121 History of Western Civilizations  
         to 1500.....3

    Social Science Elective\* .....3

**C. Physical and Life Sciences .....7**

    Physical or Life Science with Lab Elective\* .....4

    Physical or Life Science without Lab Elective\* .....3

**D. Mathematics .....3**

    MTH Elective\* .....3

**E. Humanities and Fine Arts .....9**

    Recommended Courses:

    Fine Arts Elective\* .....3

    Humanities Elective\* .....3

    Humanities or Fine Arts Elective\* .....3

**III. International/Multicultural Requirement (I/M)**

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

**IV. Area of Concentration/Elective Requirements .....23**

See page 323 for HUM course selections.

For more information on recommended courses or program specific advising, contact the following faculty or the Communication Arts, Humanities and Fine Arts Division at (847) 543-2040.

Christopher Cooling / Patrick Gonder / Leslie Hopkins  
 John Kupetz / Jenny Lee / Robert Lossmann  
 Nick Schevera / Jackie Trimier

RECOMMENDED  
 COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

## International Studies

### Associate in Arts

#### Plan 13AB

**Business and Social Sciences Division,  
Room T302, (847) 543-2047**

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

<b>First Semester</b> .....	<b>15-16</b>
ENG 121 English Composition I.....	3
MTH 141 Quantitative Literacy <i>or</i>	
MTH 142 General Education Statistics <i>or</i>	
MTH 222 Business Statistics .....	3-4
SSI 121 Introduction to Global Studies <i>or</i>	
SOC 121 Introduction to Sociology .....	3
HUM 121 Humanities: Ancient Times to the Middle Ages <i>or</i>	
HUM 122 Humanities: Renaissance to the Present .....	3
Concentration/Elective .....	3
<b>Second Semester</b> .....	<b>16</b>
ENG 122 English Composition II .....	3
BIO 120 Environmental Biology .....	4
ECO 221 Principles of Macroeconomics .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
<b>Third Semester</b> .....	<b>15-16</b>
CMM 121 Fundamentals of Speech .....	3
PSC 221 Comparative Political Systems .....	3
HUM 140 Introduction to International Films <i>or</i>	
Foreign Language Level 222 or higher .....	3-4
Concentration/Elective .....	3
Concentration/Elective .....	3
<b>Fourth Semester</b> .....	<b>15</b>
GEG 121 Physical Geography <i>or</i>	
Physical Science Non-Lab Elective .....	3
HUM 141 World Humanities of 20/21 Century .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

**A study abroad program for a short term (2-3 weeks) or for a long term (one semester) is highly recommended for students who are seeking for A.A. degree in International Studies. College of Lake County offers a variety of study abroad programs to several countries in the world every academic year.**

### Concentration/Electives

Choose from Recommended Courses:

ANT 121 Introduction to Anthropology .....	3
ANT 221 Cultural Anthropology .....	3
ANT 228 Cross-Cultural Relationships .....	3
ARA 222 Intermediate Modern Standard Arabic II ....	4
ART 240 History of Art I .....	3
ART 241 History of Art II .....	3
BUS 121 Introduction to Business .....	3
CHM 142 Chemistry for a Changing World-Lab ....	4
CHI 222 Intermediate Chinese II.....	4
CMM 127 Intercultural Communication .....	3
ESC 224 Environmental Geology .....	3
ECO 225 Comparative Economic Systems .....	3
EDU 224 Diversity in Schools and Society .....	3
ENG 244 Mythology and Fairy Tales .....	3
ENG 246 Latin American Writers.....	3
ENG 247 International Women Writers .....	3
ENG 271 Teaching English to Speakers of Other Language Practicum .....	3
FRN 222 Intermediate French II .....	4
FRN 223 French Civilization I .....	3
FRN 224 French Civilization II .....	3
GXS 229 Sex, Gender, and Power .....	3
GEG 122 Cultural Geography.....	3
GEG 123 World Regional Geography.....	3
GEG 223 Geography of Latin America.....	3
GER 222 Intermediate German II.....	4
GER 224 German Civilization II .....	3
HST 123 Modern Europe I.....	3
HST 124 Modern Europe II .....	3
HST 126 History of Contemporary Non-Western Civilization .....	3
HST 127 History of Chinese Culture and Society ..	3
HST 141 World History to 1500 .....	3
HST 142 World History from 1500 .....	3
HST 245 History of Latin America to 1825 .....	3
HST 246 History of Latin America from 1825 .....	3
HUM 128 Introduction to Middle Eastern Civilization .....	3
HUM 129 Introduction to East Asian Civilization....	3
ITL 222 Intermediate Italian II .....	4
ITL 223 Italian Civilization I .....	3
JPN 222 Intermediate Japanese II .....	4
PHI 126 World Religions.....	3
PHI 221 Asian Philosophy .....	3
PSC 222 International Relations .....	3
RUS 222 Intermediate Russian II .....	4
SPA 222 Intermediate Spanish II .....	4
SPA 223 Spanish Civilization I .....	3
SPA 224 Spanish Civilization II .....	3

For more information on recommended courses or program specific advising, contact the Business and Social Sciences Division at (847) 543-2047.

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

# Latin-American Studies

Associate in Arts  
 Plan 13AB  
 Communication Arts, Humanities and Fine Arts Division  
 Room B213, (847) 543-2040

**I. College Requirements<sup>^</sup>**

**II. General Education Requirements .....37**

**A. Communication Arts .....9**

- CMM 121 Fundamentals of Speech .....3
- ⊗ ENG 121 English Composition I .....3
- ⊗ ENG 122 English Composition II *or*
- ⊗ ENG 126 Advanced Composition: Scientific and Technical Communications .....3

**B. Social Sciences.....9**

- Recommended Courses: Choose 9 credits from at least two different disciplines.
- ANT 221 Cultural Anthropology .....3
  - ANT 228 Cross Cultural Relationships.....3
  - GEG 122 Cultural Geography \*\* .....3
  - GEG 123 World Regional Geography\*\* .....3
  - PSY 121 Introduction to Psychology .....3
  - PSY 225 Social Psychology .....3
  - SOC 121 Introduction to Sociology .....3
  - SOC 225 Class, Race and Gender .....3

**C. Physical and Life Sciences .....7**

- Recommended Courses:
- BIO 120 Environmental Biology .....4
  - Physical Science without Lab Elective\* .....3

**D. Mathematics .....3**

- MTH Elective\* .....3

**E. Humanities and Fine Arts .....9**

- Recommended Courses: Choose 9 credits
- ART 240 History of Art I .....3
  - ART 241 History of Art I .....3
  - HUM 121 Humanities: Ancient Times to the Middle Ages.....3
  - HUM 122 Humanities: Renaissance to the Present .....3
  - HUM 140 Introduction to International Film.....3

**III. International/Multicultural Requirement (I/M)**

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language. Recommended Courses: Spanish: SPA 121, 122, 221, 222, 223, 224

**IV. Area of Concentration/Elective Requirements .....23**

Strongly Recommended:  
 LAT 121 Introduction to Latin American Studies ..3

Recommended Courses:

- ANT 121 Introduction to Anthropology .....3
- ANT 226 Field Methods – Latin America .....3
- ENG 246 Latin American Writers.....3
- GEG 223 Geography of Latin America.....3
- HST 245 History of Latin America to 1825 .....3
- HST 246 History of Latin America from 1825 .....3
- SPA 121 Beginning Conversational Spanish I.....4
- SPA 122 Beginning Conversational Spanish II .....4
- SPA 221 Intermediate Spanish I .....4
- SPA 222 Intermediate Spanish II .....4
- SPA 223 Spanish Civilization I .....3
- SPA 224 Spanish Civilization II .....3
- \*\*\* Special Topics .....3

Additional Electives as Needed .....1

\*\* GEG 122 and GEG 123 share an IAI number. Only one of these courses will count toward meeting the general education core curriculum requirement. If both are taken, one will count as an elective.

\*\*\* Courses offered in different areas centered in Latin America if available

For more information on recommended courses or program specific advising, contact the Communication Arts, Humanities and Fine Arts Division at (847) 543-2040.

RECOMMENDED COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. <sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

## Mathematics

### Associate in Science

#### Plan 11AB

#### Engineering, Math and Physical Sciences Division

Room T302, (847) 543-2044

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete any transfer degree, students should select from the general education requirements outlined on page 52. All course prerequisites must be met. Additionally, students are required to select one course from the International/Multicultural list on page 53 to meet graduation requirements.

**First Semester Coursework.....14-16**

ENG 121 English Composition I .....	3
MTH 145 Calculus and Analytic Geometry I .....	5
PHI 122 Logic .....	3
Physical and Life Science Elective (not Physics)....	3-5

**Second Semester Coursework.....16-17**

MTH 146 Calculus and Analytic Geometry II.....	4
MCS 140 Computer Programming I <i>or</i> .....	
MCS 141 Computer Science I .....	3-4
ENG 122 English Composition II <i>or</i>	
ENG 126 Advance Composition: Scientific and Technical Communication .....	3
Social and Behavioral Sciences Elective .....	3
Humanities and Fine Arts Elective.....	3

**Third Semester Coursework.....15**

MTH 246 Calculus and Analytic Geometry III .....	4
MTH 227 Ordinary Differential Equations .....	3
PHY 123 Physics for Science & Engineering I .....	5
Social and Behavioral Sciences Elective .....	3

**Fourth Semester Coursework .....15-17**

CMM 121 Fundamentals of Speech .....	3
MCS 142 Computer Programming II .....	3
MTH 225 Linear Algebra <i>or</i> .....	
MTH 244 Discrete Mathematics .....	3
Humanities and Fine Arts Elective.....	3
Physical and Life Science Elective.....	3-5

Note: Some students may require pre-calculus course work. As a result “Recommended First Semester Coursework” in this program may not correspond to a student’s first semester in college. Discussing your particular situation with a mathematics advisor is the best way to plan an appropriate program.

For more information on recommended courses or program specific advising, contact the following faculty or the EMPS Division at (847) 543-2044.

Jeffrey Andrews / Mark Beintema / Kimberly Boyke  
 Donna Carlson / Natalia Casper / Amy Curry / Anni Gossman  
 Jason Hasbrouck / Kim Hasbrouck / Laura Hobart  
 Tracey Hoy / Byron Hunter / Saehan Hwang / Shyam Kurup  
 Jeffrey Mudrock / Annette Nehring / Scott Reed  
 William Rolli / Mark Smith / Jon Sprague / John Thomas  
 Stewart Thornburgh / Christopher Wyniawskij

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

# Music

**Associate in Arts  
Plan 13AB**

**Communication Arts, Humanities and Fine Arts Division  
Room B213, (847) 543-2040**

The following courses are recommended for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. To complete any transfer degree, students should select from the general education requirements outlined on page 52. All course prerequisites must be met. Additionally, students are required to select one course from the International/Multicultural list on page 53 to meet graduation requirements.

<b>Fall Semester</b> .....	<b>17</b>
Applied Music .....	2
Ensemble .....	1
MUS 128 Theory of Music I .....	3
MUS 125 Aural Skills I .....	1
# MUS 145 Class Piano I .....	1
Math Elective* .....	3
Humanities Elective* .....	3
+ ENG 121 English Composition I .....	3
<b>Spring Semester</b> .....	<b>17</b>
Applied Music .....	2
Ensemble .....	1
MUS 129 Theory of Music II .....	3
MUS 126 Aural Skills II .....	1
# MUS 146 Class Piano II .....	1
MUS 224 Music Literature .....	3
Humanities Elective* .....	3
+ ENG 122 English Composition II .....	3

<b>Fall Semester</b> .....	<b>14</b>
Applied Music .....	2
Ensemble .....	1
MUS 228 Theory of Music III .....	3
MUS 225 Aural Skills III .....	1
# MUS 245 Class Piano III .....	1
Physical or Life Science without Lab Elective* .....	3
CMM 121 Fundamentals of Speech .....	3
<b>Spring Semester</b> .....	<b>15</b>
Applied Music .....	2
Ensemble .....	1
MUS 229 Theory of Music IV .....	3
MUS 226 Aural Skills IV .....	1
# MUS 246 Class Piano IV .....	1
Physical or Life Science with Lab Elective* .....	4
Social and Behavioral Science Elective* .....	3

For more information on recommended courses or program specific advising, contact the following faculty member or the Communication Arts, Humanities and Fine Arts Division at (847) 543-2040.

For information on the Associate in Fine Arts in Music, see page 65.

Michael Flack

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements / + A grade of C or better is required for all English course requirements. / # MUS 145, 146 and 246 may be passed by proficiency exam. / \* See pages 56-68 for Course Selections

## Philosophy

### Associate in Arts

#### Plan 13AB

#### Communication Arts, Humanities and Fine Arts Division

Room B213, (847) 543-2040

#### I. College Requirements<sup>^</sup>

#### II. General Education Requirements .....37

##### A. Communication Arts .....9

CMM 121 Fundamentals of Speech .....3

⊗ ENG 121 English Composition I .....3

⊗ ENG 122 English Composition II .....3

##### B. Social Sciences.....9

Recommended Courses:

ANT 121 Introduction to Anthropology .....3

ANT 221 Cultural Anthropology .....3

PSY 121 Introduction to Psychology .....3

##### C. Physical and Life Sciences .....7

Physical or Life Science with Lab Elective\* .....4

Physical or Life Science without Lab Elective\* .....3

##### D. Mathematics .....3

MTH Elective\* .....3

##### E. Humanities and Fine Arts .....9

Fine Arts Elective\* .....3

Humanities Elective\* .....3

Humanities or Fine Arts Elective\* .....3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 51. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

#### IV. Area of Concentration/Elective Requirements .....23

See page 347 for PHI course selections.

For more information on recommended courses or program specific advising, contact the following faculty or the Communication Arts, Humanities and Fine Arts Division at (847) 543-2040.

Edwin George / Leslie Hopkins / Rebecca Thall  
Jackie Trimier

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer.

Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

# Physical Education

## Associate in Arts

### Plan 13AB

Biological and Health Sciences Division, Room B213,  
(847) 543-2042

#### I. College Requirements<sup>^</sup>

<b>II. General Education Requirements</b> .....	<b>37</b>
<b>A. Communication Arts</b> .....	<b>9</b>
CMM 121 Fundamentals of Speech .....	3
⊗ ENG 121 English Composition I .....	3
⊗ ENG 122 English Composition II <i>or</i>	
⊗ ENG 126 Advanced Composition: Scientific	
and Technical Communications .....	3
<b>B. Social Sciences</b> .....	<b>9</b>
Recommended Course:	
PSY 121 Introduction to Psychology .....	3
Social Science Electives* .....	6
<b>C. Physical and Life Sciences</b> .....	<b>7</b>
Physical or Life Science Elective with Lab .....	4
Physical or Life Science Elective without Lab* .....	3
<b>D. Mathematics</b> .....	<b>3</b>
MTH 140 Contemporary Mathematics <i>or</i>	
MTH 141 Quantitative Literacy <i>or</i>	
MTH 142 General Education Statistics .....	3
<b>E. Humanities and Fine Arts</b> .....	<b>9</b>
Humanities Elective* .....	3
Fine Arts Elective* .....	3
Humanities or Fine Arts Elective* .....	3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

#### IV. Area of Concentration/Elective Requirements .....23

Recommended Courses:

HWP 240 Contemporary Health Issues .....	3
HWP 260 Sport and Exercise Nutrition.....	3
HWP 299 Special Topics .....	1-3
PED 128 Introduction to Recreation .....	3
PED 149 Leisure Sports and Activities .....	2
PED 220 Physical Education	
in the Elementary School.....	3
PED 221 Introduction to Physical Education.....	3
PED 228 First Aid/CPR .....	2
PED 242 Philosophy of Coaching .....	3
PED 243 Theory and Practice of Fitness .....	2

For more information on recommended courses or program specific advising, contact faculty member Joana Pabedinskas at (847) 543-2029 or the Biological and Health Sciences Division at (847) 543-2042.

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

# Physics



## Associate in Science

### Plan 11AB

Engineering, Math and Physical Sciences Division

Room T302, (847) 543-2044

#### I. College Requirements<sup>^</sup>

#### II. General Education Requirements.....39

##### A. Communication Arts.....9

CMM 121 Fundamentals of Speech.....3

⊗ ENG 121 English Composition I .....3

⊗ ENG 122 English Composition II *or*

⊗ ENG 126 Advanced Composition: Scientific and Technical Communications .....3

##### B. Social Sciences .....6

Social Science Electives\* .....6

##### C. Physical and Life Sciences .....11

Recommended Courses:

PHY 123 Physics for Science and Engineering .....5

Life Science Elective\* .....3

##### D. Mathematics .....7

Recommended Course:

MTH 145 Calculus and Analytic Geometry I .....5

##### E. Humanities and Fine Arts .....6

Humanities or Fine Arts Elective .....6

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

#### IV. Area of Concentration/Elective Requirements .....21

Recommended Courses:

CHM 121 General Chemistry I .....5

CHM 123 General Chemistry II .....5

MCS 140 Computer Programming for Engineers and Scientists .....3

MTH 146 Calculus and Analytic Geometry II .....4

MTH 227 Ordinary Differential Equations .....3

MTH 246 Calculus and Analytic Geometry III.....4

PHY 124 Physics for Science and Engineering II .....5

PHY 221 Physics for Science and Engineering III .....4

For more information on recommended courses or program specific advising, contact the following faculty or the EMPS Division at (847) 543-2044.

David Boyke / Ana Mazilu

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

## Political Science

### Associate in Arts

#### Plan 13AB

**Business and Social Sciences Division,  
Room T302, (847) 543-2047**

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

<b>First Semester</b> .....	<b>15-16</b>
ENG 121 English Composition II .....	3
MTH 141 Quantitative Literacy <i>or</i>	
MTH 142 General Education Statistics <i>or</i>	
MTH 222 Business Statistics .....	3-4
SOC 121 Introduction to Sociology .....	3
Humanities or Fine Arts Elective .....	3
Concentration/Elective .....	3
<b>Second Semester</b> .....	<b>16</b>
ENG 122 English Composition II .....	3
GEG 120 Principles of Physical Geography .....	4
ECO 221 Principles of Macroeconomics .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
<b>Third Semester</b> .....	<b>15-16</b>
CMM 121 Fundamentals of Speech .....	3
Life Science Elective .....	3-4
PHI 121 Introduction to Philosophy .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

<b>Fourth Semester</b> .....	<b>15</b>
HST 121 History of Western Civilization to 1500 .....	3
Humanities or Fine Arts Elective .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

#### Concentration/Electives

GEG 122 Cultural Geography .....	3
HST 122 History of Western Civilization from 1500.....	3
HST 141 World History to 1500 .....	3
HST 142 World History from 1500 .....	3
PSC 121 American National Politics .....	3
PSC 122 State and Local Politics .....	3
PSC 221 Comparative Political Systems .....	3
PSC 222 International Relations .....	3
Additional Electives as Needed	

#### Math requirements vary at four-year institutions.

For more information on recommended courses or program specific advising, contact the or the Business and Social Sciences Division at (847) 543-2047.

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

## Pre-Dentistry

### Associate in Arts

#### Plan 13AB

Biological and Health Sciences Division, Room B213,  
(847) 543-2042

#### I. College Requirements<sup>^</sup>

#### II. General Education Requirements .....37

##### A. Communication Arts .....9

CMM 121 Fundamentals of Speech .....3

⊗ ENG 121 English Composition I .....3

⊗ ENG 122 English Composition II .....3

##### B. Social Sciences.....9

Recommended Courses:

PSY 121 Introduction to Psychology .....3

Social Science Electives\* .....6

##### C. Physical and Life Sciences .....7

Recommended Courses:

# BIO 161 General Biology I .....4

# CHM 121 General Chemistry I .....5

##### D. Mathematics .....3

Recommended Course:

MTH 145 Calculus I *or*

MTH 222 Business Statistics .....4-5

##### E. Humanities and Fine Arts .....9

Fine Arts Elective\* .....3

Humanities Elective\* .....3

Humanities or Fine Arts Elective\* .....3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

#### IV. Area of Concentration/Elective Requirements .....23

Recommended Courses:

# BIO 162 General Biology II .....4

# CHM 123 General Chemistry II.....5

# CHM 222 Organic Chemistry I .....5

# CHM 223 Organic Chemistry II.....5

# PHY 121 General Physics I .....5

# PHY 122 General Physics II .....5

For more information on recommended courses or program specific advising, contact faculty member Cynthia Trombino at (847) 543-2882 or the Biological and Health Sciences Division at (847) 543-2042.

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer.

Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

# Some transfer institutions may accept sequential courses (I and II) only if **both** courses are taken. Check with transfer institution.

## Pre-Medicine

### Associate in Arts

#### Plan 13AB

Biological and Health Sciences Division, Room B213,  
(847) 543-2042

#### I. College Requirements<sup>^</sup>

<b>II. General Education Requirements</b> .....	<b>37</b>
<b>A. Communication Arts</b> .....	<b>9</b>
CMM 121 Fundamentals of Speech .....	3
⊗ ENG 121 English Composition I .....	3
⊗ ENG 122 English Composition II <i>or</i>	
⊗ ENG 126 Advanced Composition: Scientific	
and Technical Communications .....	3
<b>B. Social Sciences</b> .....	<b>9</b>
Recommended Course:	
PSY 121 Introduction to Psychology .....	3
Social Science Electives* .....	6
<b>C. Physical and Life Sciences</b> .....	<b>7</b>
Recommended Courses:	
# BIO 161 General Biology I .....	4
# CHM 121 General Chemistry I .....	5
<b>D. Mathematics</b> .....	<b>3</b>
Recommended Courses:	
MTH 145 Calculus I <i>or</i>	
MTH 222 Business Statistics .....	4-5
<b>E. Humanities and Fine Arts</b> .....	<b>9</b>
Fine Arts Elective* .....	3
Humanities Elective* .....	3
Humanities or Fine Arts Elective* .....	3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

#### IV. Area of Concentration/Elective Requirements .....23

Recommended Courses:

# BIO 162 General Biology II .....	4
# CHM 123 General Chemistry II.....	5
# CHM 222 Organic Chemistry I .....	5
# CHM 223 Organic Chemistry II.....	5
# PHY 121 General Physics I .....	5
# PHY 122 General Physics II .....	5

For more information on recommended courses or program specific advising, contact faculty member Lakshmi Gollapudi at (847) 543-2324 or the Biological and Health Sciences Division at (847) 543-2042.

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. <sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections # Some transfer institutions may accept sequential courses (I and II) only if **both** courses are taken. Check with transfer institution.

## Pre-Occupational Therapy and Pre-Physical Therapy

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### Associate in Science

#### Plan 11AB

Biological and Health Sciences Division, Room B213,  
(847) 543-2042

Students who intend to complete an AS degree at the College of Lake County and transfer to a pre-professional program at a four-year college or university should become familiar with the requirements of the institution to which they plan to transfer very early in their studies.

To complete either of these transfer degrees, students should complete the requirements for the Associate in Science degree outlined on pages 58-59 and choose area of concentration electives only after consulting with a department chair. All course prerequisites must be met.

For more information on either of these courses of study, please contact the faculty members listed below or the Biological and Health Sciences Division at (847) 543-2042.

#### Pre-Occupational Therapy

Elisabeth Martin (847) 543-2884

#### Pre-Physical Therapy

Kristi Dameron (847) 543-2335

RECOMMENDED  
COURSE OF STUDY

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Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

## Pre-Pharmacy

### Associate in Arts

#### Plan 13AB

Biological and Health Sciences Division, Room B213,  
(847) 543-2042

#### I. College Requirements<sup>^</sup>

#### II. General Education Requirements .....37

##### A. Communication Arts .....9

CMM 121 Fundamentals of Speech .....3

⊗ ENG 121 English Composition I .....3

⊗ ENG 122 English Composition II .....3

##### B. Social Sciences.....9

Recommended Courses:

ECO 221 Principles of Macroeconomics .....3

PSY 121 Introduction to Psychology .....3

Social Science Elective .....3

##### C. Physical and Life Sciences .....7

Recommended Courses:

# BIO 161 General Biology I .....4

# CHM 121 General Chemistry I .....5

##### D. Mathematics .....3

Recommended Courses:

MTH 145 Calculus .....5

MTH 222 Business Statistics.....4

##### E. Humanities and Fine Arts .....9

Fine Arts Elective\* .....3

Humanities Elective\* .....3

Humanities or Fine Arts Elective\* .....3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

#### IV. Area of Concentration/Elective Requirements .....23

Recommended Courses:

BIO 149 Genetics and Society .....3

# BIO 162 General Biology II .....4

BIO 244 Anatomy and Physiology I .....4

BIO 245 Anatomy and Physiology II .....4

BIO 246 Microbiology .....4

# CHM 123 General Chemistry II.....5

# CHM 222 Organic Chemistry I .....5

# CHM 223 Organic Chemistry II.....5

# PHY 121 General Physics I .....5

# PHY 122 General Physics II .....5

For more information on recommended courses or program specific advising, contact the following faculty or the Biological and Health Sciences Division at (847) 543-2042.

Tara Simmons / Jeanne Simonsen

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer.

Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

# Some transfer institutions may accept sequential courses (I and II) only if **both** courses are taken. Check with transfer institution.

## Pre-Veterinary Medicine

Associate in Arts

Plan 13AB

Biological and Health Sciences Division, Room B213,  
(847) 543-2042

### I. College Requirements<sup>^</sup>

<b>II. General Education Requirements .....</b>	<b>37</b>
<b>A. Communication Arts .....</b>	<b>9</b>
CMM 121 Fundamentals of Speech .....	3
⊗ ENG 121 English Composition I .....	3
⊗ ENG 122 English Composition II <i>or</i>	
⊗ ENG 126 Advanced Composition: Scientific	
and Technical Communications .....	3
<b>B. Social Sciences.....</b>	<b>9</b>
Social Science Electives*.....	9
<b>C. Physical and Life Sciences .....</b>	<b>7</b>
Recommended Courses:	
# BIO 161 General Biology I .....	4
# CHM 121 General Chemistry I .....	5
<b>D. Mathematics .....</b>	<b>3</b>
Recommended Course:	
MTH 222 Business Statistics .....	4
<b>E. Humanities and Fine Arts .....</b>	<b>9</b>
Fine Arts Elective* .....	3
Humanities Elective* .....	3
Humanities or Fine Arts Elective* <sup>1</sup> .....	3

### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

### IV. Area of Concentration/Elective Requirements .....23

Recommended Courses:

# BIO 162 General Biology II .....	4
BIO 221 General Zoology <sup>2</sup> .....	4
# CHM 123 General Chemistry II.....	5
CHM 125 Elementary Organic Chemistry <sup>3</sup> .....	5
# CHM 222 Organic Chemistry I <sup>3</sup> .....	5
# CHM 223 Organic Chemistry II <sup>3</sup> .....	5
# PHY 121 General Physics I .....	5
# PHY 122 General Physics II .....	5

<sup>1</sup> Meets CLC AA requirements but is not required by U of I College of Veterinary Medicine.

<sup>2</sup> Strongly recommended. Required by University of Wisconsin School of Veterinary Medicine. Not required by U of I College of Veterinary Medicine.

<sup>3</sup> For application to a Veterinary Program without completing a Bachelor of Science degree, students should complete either CHM 222 and CHM 223 or CHM 125 and a biochemistry course (not offered at CLC).

For more information on recommended courses or program specific advising, contact faculty member Branko Jablanovic at (847) 543-2883 or the Biological and Health Sciences Division at (847) 543-2042.

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer.

Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

# Some transfer institutions may accept sequential courses (I and II) only if **both** courses are taken. Check with transfer institution.

# Psychology

**Associate in Arts  
Plan 13AB  
Business and Social Sciences Division,  
Room T302, (847) 543-2047**

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

<b>First Semester</b> .....	<b>16</b>
⊗ ENG 121 English Composition I.....	3
MTH 141 Quantitative Literacy <i>or</i>	
MTH 142 General Education Statistics <i>or</i>	
MTH 222 Business Statistics .....	3-4
PSY 121 Introduction to Psychology (elective) .....	3
ANT 221 Cultural Anthropology.....	3
Fine Arts Elective .....	3
<b>Second Semester</b> .....	<b>16</b>
⊗ ENG 122 English Composition II .....	3
BIO 161 General Biology I .....	4
Humanities Elective .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
<b>Third Semester</b> .....	<b>15-16</b>
CMM 121 Fundamentals of Speech .....	3
Physical Science Elective.....	3-4
PSC 121 American National Politics .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

<b>Fourth Semester</b> .....	<b>15</b>
Humanities or Fine Arts Elective (with I/M designation, if needed) .....	3
HST 121 History of Western Civilization to 1500 .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

**Concentration/Electives**  
Recommended Courses:

PSY 121 Introduction to Psychology.....	3
PSY 220 Lifespan Development .....	3
PSY 222 Child Growth and Development.....	3
PSY 223 Abnormal Psychology.....	3
PSY 224 Theories of Personality .....	3
PSY 225 Social Psychology.....	3
PSY 226 Adolescent Psychology.....	3
PSY 228 Human Sexuality.....	3
PSY 229 Psychology of Women .....	3
PSY 240 Brain and Behavior .....	3
PSY 248 Psychology of the Criminal Mind .....	3

For more information on recommended courses or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047.

Nora Benjamin / Shari Brueske / Evan Finer  
Kenneth Kikuchi / Martha Lally / Matthew Rasmussen  
Eric Rogers / Suzanne Valentine-French

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.  
^ See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

## Recreation

### Associate in Arts

#### Plan 13AB

Biological and Health Sciences Division, Room B213,  
(847) 543-2042

#### I. College Requirements<sup>^</sup>

#### II. General Education Requirements .....37

##### A. Communication Arts .....9

CMM 121 Fundamentals of Speech .....3

⊗ ENG 121 English Composition I .....3

⊗ ENG 122 English Composition II *or*

⊗ ENG 126 Advanced Composition: Scientific  
and Technical Communications .....3

##### B. Social Sciences.....9

Recommended Course:

PSY 121 Introduction to Psychology .....3

Social Science Electives\* .....6

##### C. Physical and Life Sciences .....7

Physical or Life Science Elective with Lab .....4

Physical or Life Science Elective without Lab\* .....3

##### D. Mathematics .....3

MTH 140 Contemporary Mathematics *or*

MTH 141 Quantitative Literacy *or*

MTH 142 General Education Statistics .....3

##### E. Humanities and Fine Arts .....9

Humanities Elective\* .....3

Fine Arts Elective\* .....3

Humanities or Fine Arts Elective\* .....3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

#### IV. Area of Concentration/Elective Requirements .....23

Recommended Courses:

HWP 240 Contemporary Health Issues .....3

HWP 299 Special Topics .....1-3

PED 128 Introduction to Recreation .....3

PED 149 Leisure Sports and Activities .....2

PED 129 Fundamentals of Youth Programming ....4

PED 228 First Aid/CPR .....3

PED 229 Experience in the Out-Of-Doors .....1

PED 242 Philosophy of Coaching .....3

PED 248 Fieldwork in Recreation .....4

For more information on recommended courses or program specific advising, contact faculty member Joana Pabedinskas at (847) 543-2029 or the Biological and Health Sciences Division at (847) 543-2042.

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. <sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

## Secondary Education

### Associate in Arts

#### Plan 13AB

**Business and Social Sciences Division,  
Room T302, (847) 543-2047**

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

<b>First Semester</b> .....	<b>16</b>
ENG 121 English Composition I.....	3
MTH 142 General Education Statistics <i>or</i>	
MTH 222 Business Statistics .....	3-4
PSY 121 Introduction to Psychology .....	3
ART 121 Introduction to Art <i>or</i>	
MUS 124 Music Appreciation .....	3
EDU 121 Introduction to Teaching (elective) .....	3
<b>Second Semester</b> .....	<b>16</b>
ENG 122 English Composition II .....	3
EDU 124 Child Development for Educators (elective).....	3
BIO 123 Principles of Biology.....	4
Humanities Elective .....	3
Concentration/Elective .....	3
<b>Third Semester</b> .....	<b>15</b>
CMM 121 Fundamentals of Speech .....	3
ESC 123 Introduction to Meteorology <i>or</i>	
GEG 121 Physical Geography.....	3
HST 221 U.S. History to 1876 <i>or</i>	
HST 222 U.S. History 1876 to Present.....	3
(Note: Some transfer schools require both HST 221 and HST 222. Check with your transfer school)	
Concentration/ Elective .....	3
Concentration/ Elective .....	3
<b>Fourth Semester</b> .....	<b>15</b>
PSC 121 American National Politics .....	3
Humanities or Fine Arts Elective (with I/M designation*, if needed) .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

#### Concentration/Electives

A secondary teaching credential requires a major at a 4 year college or university. Examples include but are not limited to: English, Math, Biology, Chemistry, Physics, History, a Foreign

Language, and Business.) Students planning to transfer should verify 4 year college requirements as they differ from college to college. Students interested in Music Education or the Associate in Arts in Teaching Math should consult the respective department at CLC.

<b>Recommended Education Courses</b> .....	<b>12</b>
EDU 121 Introduction to Teaching .....	3
EDU 124 Child Development for Educators.....	3
EDU 222 Exceptional Children.....	
EDU 223 Technology In The Classroom .....	3
EDU 224 Diversity in the Schools I/M.....	3
EDU 225 Educational Psychology .....	3
EDU 242 Observation/Clinical Experience.....	1
EDU 299 Special Topics in Education .....	1-3

\*EDU 224 – Diversity in the Schools is recommended for the Secondary Education Concentration/Elective to satisfy the I/M requirement.

\*\*Many four year colleges require a foreign language. To fulfill the humanities requirement, a student must take a foreign language with a course number of 222. (This is an intermediate level foreign language class requiring several semesters of beginning level foreign language courses before the intermediate course can be taken.)

Any additional electives should be taken in a particular subject area that meets requirements for a secondary teaching credential and will transfer to a four year college of your choice. Consult the four year institution requirements for different majors that lead to a credential in secondary education.

A passing score on the Illinois Test of Academic Proficiency (formerly the Illinois Test of Basic Skills) or a current ACT plus Writing test with a score of 22 or higher is required for admission to a four-year college or university school of education. One of these tests should be taken by recent high school graduates after completing 15-30 credit hours of college work. Older students should take the test after completing 40-45 college credit hours. It is recommended that you take ENG 121 and MTH 121 before taking either of these tests. There is a 3-credit test preparation course, EDU 999, offered by the CLC Education department which will help you review for either test. It is strongly recommended that you complete this preparation course.

For all those students wishing to obtain a teaching credential in the state of Illinois, a grade of C or above is compulsory for all coursework that is required for the teaching credential. This would include courses in your major, all education courses, and required general electives. (Effective 2012, Illinois State Board of Education)

For more information on recommended courses or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047.

Kathy Johnston / Michelle Proctor

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

## Social Work

### Associate in Arts

#### Plan 13AB

**Business and Social Sciences Division,  
Room T302, (847) 543-2047**

The following courses are recommended for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

#### First Semester .....15-16

ENG 121	English Composition I.....3
MTH 142	General Education Statistics <i>or</i>
MTH 222	Business Statistics .....3-4
PSY 121	Introduction to Psychology .....3
PHI 125	Introduction to Ethics (I/M) .....3
PSC 121	American National Politics .....3

#### Second Semester .....15

ENG 122	English Composition II .....3
GEG 121	Physical Geography <i>or</i>
CHM 140	Chemistry for a Changing World .....3
SWK 121	Introduction to Social Work (Elective) .....3
	Concentration Elective .....3
	Concentration Elective .....3

#### Third Semester.....15-16

CMM 121	Fundamentals of Speech .....3
BIO 141	Concepts in Biology.....3-4
	Fine Arts Elective .....3
	Concentration Elective .....3
	Concentration Elective .....3

#### Fourth Semester .....15

ANT 221	Cultural Anthropology.....3
PHI 121	Introduction to Philosophy .....3
	Concentration Elective .....3
	Concentration Elective .....3
	Concentration Elective .....3

#### Concentration/Electives

##### Recommended Courses:

GXS 229	Sex, Gender and Power .....3
HUS 123	Introduction to Group Dynamics .....3
HUS 128	Introduction to Counseling Skills.....3
HUS 140	Drugs and Society.....3
HUS 234	Child Maltreatment.....3
PSY 223	Abnormal Psychology.....3
PSY 229	Psychology of Women .....3
SOC 121	Introduction to Sociology .....3
SOC 224	Sociology of the Family .....3
SOC 225	Race, Class, & Gender .....3
SWK 121	Introduction to Social Work .....3
SWK 228	Human Sexuality.....3

#### Math requirements vary at four-year institutions.

For more information on recommended courses or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047.

Mick Cullen / Janet Mason

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

# Sociology

## Associate in Arts

### Plan 13AB

**Business and Social Sciences Division,  
Room T302, (847) 543-2047**

The following courses are recommended for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

<b>First Semester</b> .....	<b>15-16</b>
ENG 121 English Composition I.....	3
MTH 141 Quantitative Literacy <i>or</i>	
MTH 142 General Education Statistics <i>or</i>	
MTH 222 Business Statistics .....	3-4
PHI 125 Introduction to Ethics (I/M) .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
<b>Second Semester</b> .....	<b>16</b>
ENG 122 English Composition II .....	3
BIO 120 Environmental Biology <i>or</i>	
BIO 141 Concepts in Biology .....	4
ANT 221 Cultural Anthropology.....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
<b>Third Semester</b> .....	<b>15</b>
CMM 121 Fundamentals of Speech .....	3
PSC 121 American National Politics .....	3
Humanities or Fine Arts Elective .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

<b>Fourth Semester</b> .....	<b>15</b>
HST 222 U.S. History 1876 to Present.....	3
HUM 221 American Decades.....	3
Physical Science Elective .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3

### Concentration/Electives

GEG 122 Cultural Geography .....	3
GXS 121 Introduction to Gender Studies .....	3
PHI 128 Social and Political Philosophy.....	3
PSY 121 Introduction to Psychology .....	3
PSY 225 Social Psychology .....	3
SOC 121 Introduction to Sociology .....	3
SOC 222 Social Problems.....	3
SOC 223 Deviance .....	3
SOC 224 Sociology of the Family .....	3
SOC 225 Class, Race, and Gender .....	3
SOC 229 Sex, Gender, and Power .....	3
SOC 299 Special Topics in Sociology .....	3

For more information on recommended courses or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047.

Frederic Hutchinson / Sonia Oliva / Suzanne Pryga  
John Tenuto

RECOMMENDED  
COURSE OF STUDY

## Spanish

### Associate in Arts

#### Plan 13AB

Communication Arts, Humanities and Fine Arts Division  
Room B213, (847) 543-2040

#### I. College Requirements<sup>^</sup>

#### II. General Education Requirements .....37

##### A. Communication Arts .....9

- CMM 121 Fundamentals of Speech .....3
- ⊗ ENG 121 English Composition I .....3
- ⊗ ENG 122 English Composition II *or*
- ⊗ ENG 126 Advanced Composition: Scientific  
and Technical Communications .....3

##### B. Social Sciences.....9

Recommended Courses:

- ANT 221 Cultural Anthropology .....3
- ANT 228 Cross Cultural Relationships.....3
- GEG 122 Cultural Geography *or*
- GEG 123 World Regional Geography.....3
- PSY 121 Introduction to Psychology .....3
- PSY 225 Social Psychology .....3
- SOC 121 Introduction to Sociology .....3
- SOC 225 Class, Race and Gender .....3

##### C. Physical and Life Sciences .....7

Recommended Courses:

- BIO 120 Environmental Biology .....4
- Physical Science without Lab Elective\* .....3

##### D. Mathematics .....3

- MTH Elective\* .....3

##### E. Humanities and Fine Arts .....9

Recommended Courses:

- ART 240 History of Art I .....3
- ART 241 History of Art II *or*
- HUM 121 Humanities: Ancient Times  
to the Middle Ages .....3
- HUM 122 Humanities: Renaissance  
to the Present .....3
- HUM 140 Introduction to International Film .....3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language. Recommended Courses: Spanish: SPA 121, 122, 221, 222, 223, 224

#### IV. Area of Concentration/Elective Requirements .....23

Recommended Courses:

- SPA 121 Beginning Conversational Spanish I.....4
- SPA 122 Beginning Conversational Spanish II .....4
- SPA 221 Intermediate Spanish I .....4
- SPA 222 Intermediate Spanish II .....4
- SPA 223 Spanish Civilization I .....3
- SPA 224 Spanish Civilization II .....3
- Additional Electives as Needed .....1

For more information on recommended courses or program specific advising, contact the following faculty or the Communication Arts, Humanities and Fine Arts Division at (847) 543-2040.

Theresa Ruiz-Velasco / Olivia Yanez

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. <sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

# Special Education

## Associate in Arts

### Plan 13AB

**Business and Social Sciences Division,  
Room T302, (847) 543-2047**

The following courses are recommended for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements. If a specific course is not recommended, please select from the appropriate category outlined in the general education requirements for the Associate in Arts degree on pages 56-57.

<b>First Semester</b> .....	<b>15</b>
ENG 121 English Composition I.....	3
MTH 121 Math for Elementary Teaching I (elective).....	3
PSY 121 Introduction to Psychology .....	3
MUS 124 Music Appreciation <i>or</i>	
MUS 224 Music Literature .....	3
EDU 121 Introduction to Teaching (elective).....	3
<b>Second Semester</b> .....	<b>16</b>
ENG 122 English Composition II .....	3
BIO 120 Environmental Biology <i>or</i>	
BIO 141 Concepts in Biology .....	4
MTH 221 Math for Elementary Teaching II .....	3
GEG 122 Cultural Geography <i>or</i>	
HST 221 U.S. History to 1876 <i>or</i>	
HST 222 U.S. History 1876 to Present.....	3
EDU 124 Child Development for Educators (elective).....	3
<b>Third Semester</b> .....	<b>16</b>
CMM 121 Fundamentals of Speech .....	3
PHY 120 Practical Aspects of Physics .....	4
HUM 128+ Introduction to Middle Eastern Civilizations <i>or</i>	
PHI 123+ Philosophy of Religion <i>or</i>	
PHI 125+ Ethics <i>or</i>	
PHI 126+ World Religions.....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
<b>Fourth Semester</b> .....	<b>15</b>
PSC 121 American National Politics .....	3
ART 240+ History of Art I <i>or</i>	
ART 241+ History of Art II <i>or</i>	
ART 260 History of Photography .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
Concentration/Elective .....	3
<b>Concentration/Electives</b>	
Recommended Courses:	
EDU 121 Introduction to Teaching.....	3
EDU 124 Child Development for Educators.....	3
EDU 222 The Exceptional Child .....	3
EDU 223 Technology in the Classroom .....	3

+ EDU 224 Diversity in the Classroom .....	3
EDU 225 Educational Psychology .....	3
EDU 226 Foundations of Reading .....	3
** EDU 242 Observation and Clinical Experience .....	1
++MTH 121 Math for Elementary Teachers I .....	3
+ Choose from these courses to fulfill the I/M requirement. EDU 224 is strongly recommended for this program of study.	
++ MTH 121 is a prerequisite for MTH 221 and may be used as an elective requirement.	
** Requires 30 hours of observation and field study in a school setting.	
# A B.A. degree at many four-year colleges may also require the following:	
PED 140 Contemporary Health Issues .....	2
PED 220 Physical Education in the Elementary School.....	3
Any Earth Science Lab Class.....	4

A passing score on the Illinois Test of Academic Proficiency (formerly the Illinois Test of Basic Skills) or a current ACT plus Writing test with a score of 22 or higher is required for admission to a four-year college or university school of education. One of these tests should be taken by recent high school graduates after completing 15-30 credit hours of college work. Older students should take the test after completing 40-45 college credit hours. It is recommended that you take ENG 121 and MTH 121 before taking either of these tests. There is a 3-credit test preparation course, EDU 999, offered by the CLC Education department which will help you review for either test. It is strongly recommended that you complete this preparation course.

Check with your four-year institution for specific transfer requirement.

<sup>1</sup> This plan benefits students interested in transferring to a four-year college or university to obtain Illinois State Board of Education K-9 certification. Students who wish to obtain certification for grades 6-12 should select electives from an area of concentration in which they want to teach. Concentration areas include Art, English, Foreign Language, Language Arts, Social Studies, Math, Music, Science and Theatre. Students should meet with a CLC Education advisor or counselor as early as possible.

For students wishing to obtain a teaching credential in the State of Illinois, a grade of C or above is compulsory for all coursework required for the teaching credential. This includes courses in the major, all education courses, and required general electives. This is effective for those applying for teacher certification as of 2012, Illinois State Board of Education.

For more information on recommended courses or for program specific advising, students may contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047.

Kathleen Johnston / Michelle Proctor

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. See page 52 for College Requirements.

## Sustainability (Policy and Social Aspects)

### Associate in Arts

#### Plan 13AB

#### Engineering, Math and Physical Sciences Division

Room T302, (847) 543-2044

#### I. College Requirements<sup>^</sup>

#### II. General Education Requirements .....37

##### A. Communication Arts .....9

CMM 121 Fundamentals of Speech .....3

⊗ ENG 121 English Composition I .....3

⊗ ENG 122 English Composition II *or*

⊗ ENG 126 Advanced Composition: Scientific  
and Technical Communications .....3

##### B. Social Sciences.....9

Recommended Courses:

ANT 222 Introduction to Physical Anthropology ....3

PSY 121 Introduction to Psychology .....3

SOC 222 Social Problems.....3

##### C. Physical and Life Sciences .....7

Recommended Courses (one course must have a lab):

BIO 120 Environmental Biology  
with Lab *or*

BIO 140 Environmental Biology  
without Lab .....3-4

CHM 140 Chemistry for a Changing World  
with Lab *or*

CHM 142 Chemistry for a Changing World  
without Lab .....3-4

##### D. Mathematics.....3-5

Recommended Courses:

MTH 127 Finite Mathematics .....4

MTH 140 Contemporary Mathematics .....3

MTH 142 General Education Statistics .....3

MTH 141 Quantitative Literacy.....3

MTH 145 Calculus and Analytical Geometry I.....5

MTH 146 Calculus and Analytic Geometry II.....4

MTH 222 Business Statistics .....4

MTH 224 Calculus for Business  
and Social Science .....4

MTH 244 Discrete Mathematics .....3

MTH 246 Calculus and Analytic Geometry III.....4

##### E. Humanities and Fine Arts .....9

Recommended Courses:

PHI 125 Introduction to Ethics .....3

Fine Arts Elective\* .....3

Humanities or Fine Arts Elective.....3

### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement.

### IV. Area of Concentration/Elective Requirements .....23

Strongly Recommended:

ECO 222 Principles of Microeconomics .....3

Recommended Courses:

BUS 121 Introduction to Business .....3

ESC 121 Physical Geology .....4

ESC 123 Introduction to Meteorology *or*

ESC 127 Introduction to Meteorology with lab ..3-4

ESC 224 Environmental Geology .....3

GEG 120 Principles of Physical Geography.....4

PSC 121 American National Politics .....3

\*\* ARC 219 Introduction to Environmental Design ....3

\*\* CIV 131 GIS/GPS Applications for Civil  
and Surveying Technology .....3

\*\* EET 130 Introduction to Renewable  
Energy Sources .....4

\*\* HRT 286 Natural Areas Management.....4

\*\* No more than 6 hours of 1.2 career and technical education courses can count toward an A.A. degree.

For more information on recommended courses or program specific advising, contact Engineering faculty member Ryan Cumpston or the EMPS Division at (847) 543-2044.

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer.

Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

## Sustainability (Science and Technical Aspects)

### Associate in Science

#### Plan 11AB

Engineering, Math and Physical Sciences Division  
Room T302, (847) 543-2044

#### I. College Requirements<sup>^</sup>

#### II. General Education Requirements .....39

##### A. Communication Arts .....9

CMM 121 Fundamentals of Speech .....3

⊗ ENG 121 English Composition I .....3

⊗ ENG 122 English Composition II *or*

⊗ ENG 126 Advanced Composition: Scientific  
and Technical Communications .....3

##### B. Social Sciences.....6

Recommended Courses:

ANT 222 Introduction to Physical Anthropology ....3

PSY 121 Introduction to Psychology .....3

SOC 222 Social Problems.....3

##### C. Physical and Life Sciences .....11

Recommended Courses:

BIO 161 General Biology I .....4

CHM 121 General Chemistry I .....5

##### D. Mathematics .....7

Recommended Courses:

MTH 127 Finite Mathematics .....4

MTH 145 Calculus and Analytical Geometry I.....5

MTH 146 Calculus and Analytic Geometry II.....4

MTH 224 Calculus for Business  
and Social Science .....4

MTH 227 Ordinary Differential Equations .....3

MTH 244 Discrete Mathematics .....3

MTH 246 Calculus and Analytic Geometry III .....4

##### E. Humanities and Fine Arts .....6

Recommended Courses:

HUM 127 Critical Thinking .....3

PHI 125 Introduction to Ethics .....3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement.

#### IV. Area of Concentration/Elective Requirements .....26

Strongly Recommended:

BIO 162 General Biology II .....4

CHM 123 General Chemistry II.....5

Recommended Courses:

ESC 121 Physical Geology .....4

ESC 224 Environmental Geology .....3

GEG 120 Principles of Physical Geography .....4

PHY 121 General Physics I .....5

\*\* ARC 219 Introduction to Environmental Design ....3

\*\* CIV 131 GIS/GPS Applications for Civil  
and Surveying Technology .....3

\*\* EET 130 Introduction to Renewable  
Energy Sources .....4

HRT 286 Natural Areas Management.....4

\*\* No more than 6 hours of 1.2 career and technical education courses can count toward an A.S. degree.

For more information on recommended courses or program specific advising, contact Engineering faculty member Ryan Cumpston or the EMPS Division at (847) 543-2044.

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer.

Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

## Teaching in Secondary Mathematics

### Associate in Arts in Teaching

#### Plan 17AB

#### Engineering, Math and Physical Sciences Division

Room T302, (847) 543-2044

#### I. College Requirements<sup>^</sup>

#### II. General Education Requirements .....41

##### A. Communication Arts .....9

- CMM 121 Fundamentals of Speech .....3
- ⊗ ENG 121 English Composition I .....3
- ⊗ ENG 122 English Composition II *or*
- ⊗ ENG 126 Advanced Composition: Scientific  
and Technical Communications .....3

##### B. Social Sciences.....9

- PSY 121 Introduction to Psychology .....3
- PSY 226 Adolescent Development .....3
- Social Science Elective\* (non-PSY) .....3

##### C. Physical and Life Sciences .....9

- BIO 161 General Biology I .....4
- PHY 123 Physics for Science  
and Engineering .....5

##### D. Mathematics .....5

- MTH 145 Calculus and Analytic Geometry I .....5

##### E. Humanities and Fine Arts .....9

- PHI 122 Logic .....3
- Fine Arts Elective\* .....3
- Humanities or Fine Arts Elective\* .....3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

#### IV. Area of Concentration Requirements .....21

##### Education

- EDU 121 Introduction to Teaching .....3
- \*\* EDU 242 Observational/Clinical  
Experience in Education .....1
- EDU 222 The Exceptional Child .....3

##### Mathematics

- MTH 146 Calculus and Analytic Geometry II.....4
- MTH 225 Linear Algebra.....3
- MTH 246 Calculus and Analytic Geometry III .....4

##### Computer Science

- MCS 140 Computer Programming for  
Engineers and Scientists .....3

The Associate in Arts in Teaching Secondary Mathematics degree is not automatically accepted in whole for transfer at all participating IAI four-year colleges and universities in Illinois; therefore students must work with the institutions in which they intend to transfer to ensure transferability of specific courses.

Students must pass the ICTS Test of Academic Proficiency (TAP) in order to be awarded the AAT degree.

\*\* Requires 30 hours of observation and field experience in a school setting.

For students wishing to obtain a teaching credential in the State of Illinois, a grade of C or above is compulsory for all coursework required for the teaching credential. This includes courses in the major, all education courses, and required general electives. This is effective for those applying for teacher certification as of 2012, Illinois State Board of Education.

For more information on recommended courses or program specific advising, contact the following faculty or the EMPS Division at (847) 543-2044.

Amy Curry / Tracey Hoy

RECOMMENDED  
COURSE OF STUDY

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements. <sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

## Theatre - Performance (Acting / Directing)

### Associate in Arts

#### Plan 13AB

Communication Arts, Humanities and Fine Arts Division  
Room B213, (847) 543-2040

#### I. College Requirements<sup>^</sup>

<b>II. General Education Requirements</b> .....	<b>37</b>
<b>A. Communication Arts</b> .....	<b>9</b>
CMM 121 Fundamentals of Speech.....	3
⊗ ENG 121 English Composition I.....	3
⊗ ENG 122 English Composition II.....	3
<b>B. Social Sciences</b> .....	<b>9</b>
Social Science Electives*.....	9
<b>C. Physical and Life Sciences</b> .....	<b>7</b>
Physical or Life Science with Lab Elective*.....	4
Physical or Life Science without Lab Elective*.....	3
<b>D. Mathematics</b> .....	<b>3</b>
MTH Elective*.....	3
<b>E. Humanities and Fine Arts</b> .....	<b>9</b>
Recommended Courses:	
THE 121 Introduction to Theatre.....	3
ENG 227 Introduction to Shakespeare.....	3
THE 123 Diversity in American Theatre <i>or</i>	
DNC 240 The Art of Dance.....	3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

#### IV. Area of Concentration/Elective Requirements .....23

Recommended Courses#:	
THE 125 Principles of Acting I.....	3
THE 126 Stagecraft.....	3
THE 129 Theatre Practicum.....	3
THE 223 Play Analysis for Production.....	3
THE 225 Acting II.....	3
THE 228 Directing I.....	3
THE 229 Stage Make Up.....	3
THE 299 Special Topics in Theatre.....	1-3

# See an advisor or faculty member for course sequencing of recommended courses.

For more information on recommended courses or program specific advising, contact faculty member Craig Rich or the Communication Arts, Humanities and Fine Arts Division at (847) 543-2040.

## Theatre - Technical (Design / Stage Management)

### Associate in Arts

#### Plan 13AB

Communication Arts, Humanities and Fine Arts Division  
Room B213, (847) 543-2040

#### I. College Requirements<sup>^</sup>

<b>II. General Education Requirements</b> .....	<b>37</b>
<b>A. Communication Arts</b> .....	<b>9</b>
CMM 121 Fundamentals of Speech.....	3
⊗ ENG 121 English Composition I.....	3
⊗ ENG 122 English Composition II.....	3
<b>B. Social Sciences</b> .....	<b>9</b>
Social Science Electives*.....	9
<b>C. Physical and Life Sciences</b> .....	<b>7</b>
Physical or Life Science with Lab Elective*.....	4
Physical or Life Science without Lab Elective*.....	3
<b>D. Mathematics</b> .....	<b>3</b>
MTH Elective*.....	3
<b>E. Humanities and Fine Arts</b> .....	<b>9</b>
Recommended Courses:	
THE 121 Introduction to Theatre.....	3
ENG 227 Introduction to Shakespeare.....	3
THE 123 Diversity in American Theatre <i>or</i>	
ART 121 Introduction to Art.....	3

#### III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 53. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A B.A. degree at many four-year colleges may require college-level foreign language.

#### IV. Area of Concentration/Elective Requirements .....23

Recommended Courses:	
THE 125 Principles of Acting I.....	3
THE 126 Stagecraft.....	3
THE 127 Theatre Practicum II.....	1-3
THE 129 Theatre Practicum.....	3
THE 223 Play Analysis for Production.....	3
THE 226 Lighting for Stage and Studio.....	3
THE 228 Directing I.....	3
THE 229 Stage Make Up.....	3
THE 299 Special Topics in Theatre.....	1-3

# See an advisor or faculty member for course sequencing of recommended courses.

For more information on recommended courses or program specific advising, contact faculty member Tom Mitchell or the Communication Arts, Humanities and Fine Arts Division at (847) 543-2040.

Courses listed are **recommended** for students who have not decided upon a specific four-year college or university in which to transfer. Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

<sup>^</sup> See page 52 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / \* See pages 56-68 for Course Selections

## Associate Degree Transfer Programs

### Associate in General Studies

#### Associate in General Studies

##### Plan 10AC

**Counseling, Advising, and Transfer Center  
Room A124, (847) 543-2060**

The Associate in General Studies (A.G.S.) is a highly individualized degree that combines both liberal arts and sciences and occupational education coursework. It is an alternative degree for students who are undecided about future education or career goals or who need a 60 credit hour degree comprising 21 credit hours in general education coursework and 39 credit hours in program electives. Because of the individualized nature of this degree, students are required to meet with a counselor for assistance in choosing courses that will satisfy their academic goals. The A.G.S. is not designed for transfer to a four-year college or university. The general education requirements for the A.G.S. do not fulfill the IAI (Illinois Articulation Initiative) General Education Core Curriculum guidelines. Students can use some credits earned toward their A.G.S. degree to transfer, but should be aware that transfer options for the degree as a whole are limited. Students must meet with a Counselor to determine the appropriateness of the A.G.S. degree option and must complete a Plan of Study before their decision to pursue the A.G.S. degree is formalized. The official plan must be signed by the student and the Counselor, reviewed and signed by an additional Counselor, and then filed in the Counseling, Advising, and Transfer Center. A copy will be forwarded to the CLC Office of Registrar and Records.

#### Requirements:

##### Communication - 6 credit hours

Two courses including one course in Communication and one in English.

CMM 111	Communication Skills .....	3
CMM 121	Fundamentals of Speech .....	3
CMM 122	Business/Professional Speaking.....	3
CMM 123	Dynamics/Small Group Discuss .....	3
CMM 124	Oral Interpretation .....	3
CMM 125	Communication and Gender .....	3
CMM 127	Intercultural Communication .....	3
CMM 128	Interviewing Practices .....	3
CMM 129	Argumentation and Debate.....	3
ENG 120	Technical Composition I .....	3
ENG 121	English Composition I .....	3
ENG 122	English Composition II .....	3
ENG 126	Advanced Composition: Scientific/Technical .....	3

##### Social and Behavioral Sciences - 6 credit hours

- Any ANT course
- Any ECO course
- Any GEG course, with the exception of GEG 120 or 121
- Any GXS course

- Any HST course
- Any PSC course
- Any PSY course
- Any SOC course

##### Science or Mathematics - 6 credit hours

- AOS 122 Business Mathematics .....3
- Any BIO course
- Any CHM course
- Any ESC course
- GEG 120 Principles of Physical Geography .....4
- GEG 121 Physical Geography .....
- Any MTH course, with the exception of any developmental MTH courses (MTH 101, MTH 102, MTH 104, MTH 105, MTH 106, MTH 107, or MTH 108)
- Any PHY course
- Any SCI course

##### Humanities and Fine Arts - 3 credit hours

- Any ARA course
- Any ART course
- Any ASI course
- Any CHI course
- Any DNC course
- Any ENG course, with the exception of ENG 120, 121, 122, and 126, and any developmental ENG courses (ENG 100, 104, 108, or 109)
- Any FRN course
- Any GER course
- Any HUM course
- Any ITL course
- Any JPN course
- Any MUS course
- Any PHI course
- Any RUS course
- Any SPA course
- Any THE course

##### Area of Concentration/Elective Requirements - 39 credit hours

Because of the individualized nature of this degree, students are required to meet with a counselor for assistance in choosing mutually agreed upon courses that will satisfy their academic goals. Students with previous academic, career, and life experiences are encouraged to investigate the options of proficiency credit to substitute their acquired knowledge for prerequisites, course and/or degree requirements. Any Emergency Medical Technology (EMT) courses (with the exception of EMT 111) cannot be used to satisfy degree requirements. The following courses cannot be used to satisfy degree requirements and do not count in the grade point average (GPA): 1. ENG 100, 104, 108, or 109; MTH 101, 102, 104, 105, 106, 107 or 108; 2. Adult Education courses with a department prefix of ABE, ADE, BRGA, ELI (with the exception of ELI 125), ESL, GED, or VST

**Total A.G.S. Degree.....60**

Students must meet with a counselor for assistance in choosing courses that will satisfy their academic goals.

## Career Programs

Career education programs are designed for students seeking specialized training in preparation for employment after leaving CLC. Both the A.A.S. and career certificates are offered in many technical areas. Although these programs are not primarily designed to transfer to four-year colleges and universities, CLC has established articulation agreements with a number of colleges and universities, and many of the A.A.S. degrees may transfer. See a counselor at CLC for more information.

### Guarantee for Job Competency

As part of the College Graduate Guarantee, the College of Lake County makes certain guarantees to students who earn an Associate in Applied Science Degree or a Career Certificate. A graduate who has been judged by his or her employer to be lacking in the technical job skills that have been identified as exit competencies for the specific degree or certificate program that the student completed will be provided with up to 15 tuition-free hours of additional and appropriate skill training by CLC under the following conditions:

1. The individual must have earned the A.A.S. degree or guaranteed certificate after May 1994 in a career program identified in the CLC catalog.
2. The individual must have completed all the skill-based courses at CLC within a four year period.
3. The individual must be employed full-time in an area directly related to the area of his or her program concentration as certified by the Assistant Vice President for Educational Affairs.
4. Employment must commence within 12 months of graduation.
5. The employer must certify in writing that the employee is lacking entry-level skills identified by CLC as the employee's program competencies and must do so within 90 days of the individual's initial employment.
6. The individual, with the employer, the appropriate academic dean, and a counselor, will develop a written education plan that will fulfill the student's skills requirements.
7. Retraining will be limited to 15 credit hours in courses that directly provide the skills required to attain competency on the job. These classes will be regularly scheduled CLC classes. All retraining must be completed within one year.
8. CLC is not responsible for books, additional course fees, tools, activity fees or any other course-related expenses.
9. The completion of the additional course work does not guarantee that the graduate will achieve the required competencies or that the individual will pass any licensing or qualifying examination for a particular career.
10. The sole remedy given to an individual by CLC and its employees for skill deficiencies shall be the 15 tuition-free credit hours provided under the conditions described above.
11. The individual must complete the formal application for the tuition-free credit hours by contacting the Assistant Vice President for Educational Affairs at (847) 543-2982.

### College Requirements for the Associate in Applied Science Degree

Students must meet the following general requirements for an Associate in Applied Science degree:

- A. Satisfactory completion of the maximum number of credit hours for the respective program (see pages 125-226).
- B. Completion of at least 15 credit hours of program specific coursework at CLC (i.e., not general education coursework). This does not include credit earned through proficiency examinations.
- C. Minimum grade point average of 2.00 (C) for all work completed at CLC;
- D. Satisfactory completion of the General Education Requirements (minimum of 15.0 semester hours) for the appropriate degree.

### Petition to Graduate

All students who intend to receive a degree or career certificate must complete a Petition for Graduation available in the Welcome and One Stop Center, Room B114, Grayslake Campus.

### Active/Inactive Student Status

Students who maintain continuous enrollment are deemed active. Students who have not enrolled in any course listed in the CLC class schedule for at least two years will be designated as inactive. Inactive students who register for courses will be governed by the college catalog corresponding with the semester in which they re-enroll.

## Associate in Applied Science Degree

Students may obtain an Associate in Applied Science degree from the College of Lake County by successfully completing the required general education requirements outlined below, as well as the required courses for the particular program area selected from pages 125-226. Students must also meet graduation requirements listed on page 121.

### Required General Education Coursework .....15

#### A. Communication Arts .....6

Select one English course and one Communication Arts course:

CMM 111, 121, 122, 123, or 128 (check program requirements for specific course)  
ENG 120 or ENG 121

#### B. Social Sciences .....3

Select one course from the following selections:

Anthropology, Economics, Education, Gender and Sexuality Studies, Geography (except GEG 120 or GEG 121), History, Political Science, Psychology, Sociology

#### C. Science or Mathematics .....3

Select one course from the following selections:

Biology, Business Mathematics (AOS 122), Earth Science, Electronic Information Technology (EIT 110), Chemistry, Geography (GEG 120 or GEG 121), Mathematics, Physics

#### D. Humanities or Fine Arts .....3

Select one course from the following selections:

Architecture (ARC 228), Art, Humanities, Music, Theatre, Chinese, English (except ENG 120, 121, 122, 123, 124 and 126), Dance, Arabic, French, German, Italian, Japanese, Philosophy, Russian, Sign Language, Spanish

### Required Program Coursework .....45-57

Select coursework from programs listed in pages 125-226.

### Total Hours for Associate in Applied Science degree .....60-72

#### Graduation Requirements

- A. Cumulative CLC grade point average of 2.0 or higher;
- B. Completion of at least 15 credit hours of program specific coursework at CLC;
- C. Completed Petition to Graduate (available Welcome and One Stop Center, Room B114, Grayslake Campus).

## Certificates

The College of Lake County awards three types of certificates.

### Career Certificates

Certificates in career areas are programs which require less than two years of full-time study. A certificate program is generally distinguished from a degree program by having fewer general education requirements. In order to determine the specific requirement of a certificate program, check the list of certificate programs that is included with the Career Program Descriptions which begin on page 123 in this catalog. Candidates for certificates must submit a completed Petition for Graduation available in the Welcome and One Stop Center, Room B114, Grayslake Campus.

All students must meet the following general graduation requirements to earn a career certificate from the college:

1. Satisfactory completion of the hours and courses required for the certificate.
2. For certificates of 30 credit hours or less, students must complete at least one half of the credit hours required by the certificate at the College of Lake County. For certificates in excess of 30 credit hours, students must complete at least 15 credit hours required by the certificate at the College of Lake County. This does not include credit earned through proficiency examinations.
3. Maintenance of a C (2.0) average for all work at CLC used to compute the grade point average.

### Class Certificates

A class certificate may be awarded upon completion of a course which fulfills a special educational objective within the Adult Basic Education area. Courses for which certificates are awarded may or may not carry academic credit.

## Special Notations for Associate Degree Requirements

- A. No course may be used to satisfy more than one general education requirement.
- B. Specific electives and total hours vary by degree and program.
- C. Only a limited number of MUS and PED courses may be used towards a degree. Please see course descriptions for courses within these areas for more information.
- D. The following courses cannot be used to satisfy degree requirements and do not count in the grade point average:
  1. ENG 100, 104, 108, or 109; MTH 101, 102, 104, 105, 106, 107 or 108;
  2. Adult Education courses with a department prefix of ABE, ADE, ESL, GED or VST;
  3. General Studies courses.

## Occupational Program Descriptors *See addendum for corrections to this section.*

The College of Lake County offers the Associate in Applied Science degree and career certificates for students who wish to pursue employment in a specialized field. Requirements for each occupational program offered at the college are described in the following sections. These programs are designed as career education and are not intended to transfer. Specific requirements for each degree or certificate are listed on the following pages:

### Accounting

- Accounting A.A.S.
- Accounting Clerk Certificate
- Professional Accounting Certificate

### Administrative Office Systems

- Administrative Assistant Certificate
- Administrative Leadership Certificate
- Administrative Professional A.A.S.
- General Office Certificate
- Office Professional Certificate

### Architectural Technology

- Architectural Technology A.A.S. and Certificate

### Automotive Collision Repair

- Automotive Collision Repair A.A.S. and Certificate
- Automotive Collision Repair Assistant Certificate
- Automotive Damage Analysis Certificate
- Automotive Refinishing Technician Certificate
- Automotive Structural Repair Technician Certificate

### Automotive Technology

- Automotive Air Conditioning and Heating Specialist Certificate
- Automotive Brakes and Suspension Specialist Certificate
- Automotive Electrical Specialist Certificate
- Automotive Fuel Systems Specialist Certificate
- Automotive Oil Change Specialist Certificate
- Automotive Service Specialist Certificate
- Automotive Technician A.A.S. and Certificate
- Automotive Transmission Specialist Certificate
- Transmission Technician Certificate

### Business Administration

- Business Administration A.A.S.
- Entrepreneurship/ Small Business Management A.A.S. and Certificate
- Management A.A.S.
- Marketing A.A.S. and Certificate
- Retail Management Certificate
- Supervision Certificate

### CAD Drafting Technology

- 3D Parametric Certificate
- Architectural Certificate
- Architectural/Civil A.A.S.
- AutoCAD Certificate
- Autodesk Inventor Certificate
- Civil Certificate
- Creo Certificate
- Graphics, Animation and Presentation A.A.S. and Certificate
- Mechanical A.A.S.
- SolidWorks Certificate

### Computer Information Technology

- C++ Programming Certificate
- Cisco Networking Certificate
- Computer Forensics A.A.S.
- Computer Forensics Analyst Certificate
- Desktop Support Technician Certificate (also listed under EET)
- Game Development Certificate
- .NET Programming A.A.S. and Certificate
- Network Administration and Security A.A.S. and Certificate
- Office Application Specialist A.A.S. and Certificate
- Security Administration Certificate
- Web Programming A.A.S. and Certificate

### CNC Programming

- CNC Operations Certificate
- CNC Programming A.A.S.
- CNC Programming/Operations Certificate
- NIMS Level 1 CNC Operations Certificate

### Criminal Justice

- Criminal Justice A.A.S. and Certificate

### Dance

- Yoga Teacher Certificate

### Dental Hygiene

- Dental Hygiene A.A.S.

### Digital Media and Design

- Digital A/V Production and Editing A.A.S.
- Digital Media and Design A.A.S.
- Multimedia Communications Certificate
- Multimedia Presentations Certificate

### Early Childhood Education

- Administration and Leadership in ECE Certificate
- Early Childhood Education A.A.S.
- Early Childhood Level II Certificate
- Early Childhood Level III Certificate
- Infant/Toddler Level II Certificate
- Infant/Toddler Level III Certificate

### Electrician Apprenticeship

- Electrician Apprenticeship A.A.S.

### Electrical Engineering Technology

- Electrical Engineering Technology A.A.S.
- Electrical/Electronics Maintenance Certificate
- Electronics Technology Certificate
- Fiber Optics Technician Certificate
- Wireless Networking Security Certificate

Continued on next page.

## Associate in Applied Science and Career Certificates

### Emergency Medical Technology

Emergency Medical Technician Basic Certificate  
Emergency Medical Technician Paramedic Certificate  
Emergency Medical Technology A.A.S.

### Fire Science Technology

Fire Science Technology A.A.S.  
Firefighter Basic Operations A.A.S.

### Health and Wellness Promotion

Health and Wellness Promotion A.A.S.  
Personal Training Certificate  
Wellness Coaching Certificate

### Health Information Technology

Health Information Technology A.A.S.  
Medical Billing Specialist Certificate

### Heating and Air Conditioning (HVAC)

#### Engineering Technology

Commercial Refrigeration Technician Certificate  
Electrical Troubleshooting Technician Certificate  
HVAC/R Engineering Technology A.A.S.  
HVAC/R Installation Technician Certificate  
HVAC/R Service Technician Certificate  
Residential Air Conditioning Technician Certificate  
Residential Energy Auditing Certificate  
Residential Heating Technician Certificate

### Horticulture

Arboriculture Certificate  
Horticulture Production A.A.S.  
Landscape Construction and Maintenance A.A.S.  
Landscape Design A.A.S. and Certificate  
Landscape Maintenance Certificate  
Natural Areas Management A.A.S. and Certificate  
Sustainable Agriculture A.A.S. and Certificate

### Hospitality and Culinary Management

Baking and Pastry Arts A.A.S.  
Baking and Pastry Assistant Certificate  
Hospitality and Culinary Management A.A.S.  
Hospitality Manager Certificate  
Hospitality Supervisor Certificate  
Pastry Chef Assistant Certificate  
Professional Chef Certificate  
Professional Cook Certificate

### Human Services Program

Accelerated Addiction Counseling and Treatment Certificate  
Addiction Counseling and Treatment A.A.S. and Certificate  
Adult Services A.A.S.  
Children and Adolescents A.A.S.  
Correctional Counseling A.A.S. and Certificate  
General Human Services Program Certificate  
Trauma Interventions and Prevention A.A.S. and Certificate

### Laser/Photonics/Optics

Applied Lasers Certificate  
Biophotonics Certificate  
Laser/Photonics/Optics Certificate  
Optics and Photonics Technology A.A.S.

### Machine Tool Trades

Basic Machining Certificate  
Machine Tool Trades A.A.S. and Certificate  
Tool and Mold Maker Certificate

### Massage Therapy

Massage Therapy Certificate

### Mechanical Engineering Technology

Mechanical Engineering Technology A.A.S.  
Mechanical Engineering Technology Design Certificates  
MET I: Toolbox Certificate  
MET II: Nuts and Bolts Certificate  
MET III: Mechatronics Certificate  
MET IV: Design and Innovation Certificate  
Mechanical Service Technician I and II Certificates

### Mechatronics Technology

Mechatronics Technology Certificate

### Medical Assisting

Healthcare Office Assistant Certificate  
Medical Assisting A.A.S. and Certificate

### Medical Imaging

Computed Tomography Certificate  
Magnetic Resonance Imaging Certificate  
Medical Imaging A.A.S.

### Nursing

Certified Nurse Assisting Certificate  
Nursing A.A.S.

### Paralegal Studies

Paralegal Studies A.A.S. and Certificate

### Phlebotomy Technician

Phlebotomy Technician Certificate

### Supply Chain Management

Supply Chain Management A.A.S. and Certificate

### Surgical Technology

Surgical Technology A.A.S. and Certificate

### Sustainable Programs

Alternative Energy Technologies Certificate

### Teaching English to Speakers of Other Languages

Teaching English as a Foreign Language Certificate  
TEL Certificate  
TESOL Certificate

### Technical Communication

Professional Technical Communication Certificate  
Technical Communication A.A.S. and Certificate

### Welding

Gas Metal Arc Welding Specialty Certificate  
Gas Tungsten Arc Welding Specialty Certificate  
Shielded Metal Arc Welding Specialty Certificate  
Welding Certificate

# Accounting

**Business and Social Sciences Division,  
Room T302, (847) 543-2047**

## Accounting (Associate in Applied Science) Plan 22AA

Accounting programs prepare students to compile and analyze business records and prepare financial reports such as income statements, balance sheets, costs studies, tax returns, and other internal reports.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

### First Semester (Fall) .....15-17

ACC 121*	Financial Accounting (Track 1) <i>or</i>	
ACC 112	Accounting Procedures I (Track 2)	.....3-4
BUS 121	Introduction to Business	.....3
CIT 120*	Introduction to Computers <i>or</i>	
CIT 119	Introduction to Office Software	.....3
ENG 121	English Composition I	.....3
MTH 122	College Algebra <i>or</i>	
MTH 127	Finite Mathematics I <i>or</i>	
MTH 222	Business Statistics <i>or</i>	
MTH 224	Calculus for Business and Social Science <i>or</i>	
AOS 122	Business Mathematics	.....3-4

### Second Semester (Spring) .....15-16

ACC 122*	Managerial Accounting (Track 1) <i>or</i>	
ACC 113	Accounting Procedures II (Track 2)	.....3-4
BUS 221	Business Law I	.....3
CIT 111	Comprehensive Spreadsheets	.....3
ENG 126	Advanced Composition: Scientific and Technical Communications <i>or</i>	
AOS 111	Business Communication	.....3
	Humanities or Fine Arts Elective* (HUM 127 or PHI 122 recommended)	.....3

### Summer Session .....4

ACC 122*	Managerial Accounting (Track 2)	.....4
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### Third Semester (Fall) .....14-17

ACC 221	Intermediate Accounting I	.....4
ACC 212	Federal Tax Accounting I	.....3
ECO 221	Principles of Macroeconomics <i>and</i>	
ECO 222	Principles of Microeconomics+ <i>or</i>	
ECO 110	Economics for Business and Industry+	.....3-6
	Elective (select from list)+	.....4

### Fourth Semester (Spring).....14

ACC 222	Intermediate Accounting II	.....4
ACC 214	Cost Accounting	.....3
	Elective (select from list)+	.....4
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 128	Interviewing Practices <i>or</i>	
CMM 111	Communication Skills	.....3

### Total Hours for AAS Degree.....60-66

+ Students taking ECO 221 and ECO 222 are required to complete only five hours of business electives.

### Electives

Select eight hours from the list below:

ACC 114	Payroll Accounting	.....2
ACC 171	Introduction to QuickBooks	.....2
ACC 172	Capstone Experience	.....1
ACC 213	Federal Tax Accounting II	.....3
ACC 270	Advanced Accounting	.....4
ACC 271	Auditing	.....3
	AOS Electives	.....1-4
	BUS Electives	.....1-6
	CIT Electives	.....1-7
EWE 220	Cooperative Work Experience I	.....1-3
MTH 122	College Algebra <i>or</i>	
MTH 127	Finite Mathematics I <i>or</i>	
MTH 222	Business Statistics <i>or</i>	
MTH 224	Calculus for Business and Social Science	.....3-4
PSY 121	Introduction to Psychology <i>or</i>	
PSY 122	Industrial/Organizational Psychology	.....3

\*Preferred courses for students planning to transfer to a 4 year institution.

<sup>1</sup> There are prerequisites for MTH 122. If you do not meet those prerequisites, begin taking those classes this semester – use summer for the additional math class if needed. Certain courses are only offered certain semesters. Please check the course scheduling guide listed on the web.

## Associate in Applied Science and Career Certificates

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### Accounting Clerk (Certificate) Plan 22AI

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This program prepares individuals for positions as accounting or financial services support personnel. Accounting clerk positions require excellent mathematical aptitude, computer skills, good communication skills, and basic accounting knowledge. Most positions require a minimum keyboarding speed and software application skills.

ACC 112	Accounting Procedures I .....	3
ACC 113	Accounting Procedures II.....	3
ACC 114	Payroll Accounting .....	2
ACC 171	Introduction to Quickbooks .....	2
ACC 172	Capstone Experience - Accounting Clerk Certificate .....	1
AOS 111	Business Communication .....	3
AOS 122	Business Mathematics .....	3
CIT 111	Comprehensive Spreadsheets .....	3
CIT 119	Introduction to Office Software .....	3

**Total Hours for Certificate .....**23

Gainful Employment Information: [www.clcillinois.edu/geacc](http://www.clcillinois.edu/geacc)

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### Professional Accounting Certificate (Certificate) Plan 22AB

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This certificate is designed for individuals who have earned a bachelor's degree, in any field, and would like to continue their education to qualify to sit for the Certified Public Accountant (CPA) exam.

#### Required Accounting Coursework.....30

ACC 121	Financial Accounting .....	4
ACC 122	Managerial Accounting .....	4
ACC 212	Federal Tax Accounting I.....	3
ACC 213	Federal Tax Accounting II .....	3
ACC 221	Intermediate Accounting I .....	4
ACC 222	Intermediate Accounting II.....	4
ACC 271	Auditing .....	3
ACC 251	Financial Accounting Research .....	1
ACC 252	Research Topics in Taxation.....	1
ACC	Electives .....	3

#### Required Business Coursework .....

BUS 132	Business Ethics.....	3
BUS 221	Business Law I .....	3
BUS 237	Managerial Communication.....	3

### Accounting Electives

Select 3 hours of electives from the following courses:

ACC 214	Cost Accounting .....	3
ACC 270	Advanced Accounting .....	4

**Total Hours for Certificate .....**39

Gainful Employment Information: [www.clcillinois.edu/geacc](http://www.clcillinois.edu/geacc)

The accounting electives, Cost Accounting and Advanced Accounting, are strongly recommended for students preparing to sit for the CPA exam.

Students transferring in the equivalent of ACC 121 and/or ACC 122, for less than eight hours, will need to take additional Accounting electives to meet the required 30 hours in accounting courses.

For students preparing to sit for the CPA exam, the following additional courses are recommended to meet the 24 hour requirement in Business - BUS 111, BUS 121, BUS 222, BUS 223, ECO 221, ECO 222.

### Complete CPA Requirements at CLC

To qualify to take the CPA exam in Illinois, a candidate must have:

1. A bachelor's degree, in any field;
2. 150 semester hours of college credit;
3. 30 semester hours of Accounting credit (included in 150 above), to include courses in Financial, Managerial, Taxation, Auditing and 2 semester hours of Research and Analysis in Accounting; and
4. 24 semester hours in Business, to include Business Ethics (BUS 132) and Managerial Communication (BUS 237). Please note that although BUS 237 is a 3 credit course, only 2 hours of BUS 237 will count toward the 24 semester Business credit requirement.

Additional information and requirements for the CPA exam for those with graduate degrees in business or accounting is available on the Illinois CPA Society web page, [www.icpas.org](http://www.icpas.org). Exam information may also be found at the Illinois Board of Examiner's site, [www.ilboa.org](http://www.ilboa.org).

All students are encouraged to meet with an accounting faculty member to discuss their plan of study for the CPA exam. Call the Business and Social Sciences Division at (847) 543-2047 for faculty contact information.

Jay Chittal / Patrick Stegman / Jeffrey Varblow / Mary Zenner

## Administrative Office Systems

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### Administrative Professional (Associate in Applied Science) Plan 22SM

The Administrative Professional degree provides a blend of office automation skills including word processing and related computer applications leading to administrative professional positions in an office environment. In addition, students establish skills in business communication and general business skills and practices.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from the requirements listed on page 122. All course prerequisites must be met.

<b>First Semester</b> .....	<b>15</b>
AOS 112 Computer Basics/Software Applications.....	3
AOS 122 Business Mathematics .....	3
AOS 172 Business English .....	3
AOS 178 Intermediate Keyboarding.....	3
BUS 121 Introduction to Business .....	3
<b>Second Semester</b> .....	<b>15-16</b>
AOS 111 Business Communication .....	3
AOS 113 Comprehensive Word Processing .....	3
ACC 112 Accounting Procedures I <i>or</i>	
ACC 121 Financial Accounting .....	3-4
CIT 111 Comprehensive Spreadsheets .....	3
ENG 121 English Composition I.....	3
<b>Third Semester</b> .....	<b>15</b>
AOS 118 Advanced Word Processing/ Desktop Publishing .....	3
AOS 214 Administrative Office Procedures .....	3
AOS 215 Presentation Software .....	3
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices .....	3
AOS Elective (see AOS Electives List) .....	3
<b>Fourth Semester</b> .....	<b>15</b>
AOS 237 Managerial Communication .....	3
AOS 216 Integrated Office Projects .....	3
PSY 121 Introduction to Psychology <i>or</i>	
PSY 122 Industrial/Organizational Psychology .....	3
Humanities or Fine Arts Elective* .....	3
AOS Elective (see AOS Electives List) .....	3
<b>Total Hours for AAS Degree</b> .....	<b>60-61</b>

### Administrative Professional Degree Electives

ACC Elective.....	3
AOS Electives (except AOS 170 or AOS 171).....	1-6
BUS Electives .....	1-3
CIT Electives (except CIT 119 or CIT 120) ..	1-3
EWE 220 Cooperative Work Experience I.....	1-3
HIT 111 Medical Terminology .....	3
PLS Electives .....	3

Other electives may be chosen with consent of an AOS faculty advisor.

### General Office (Certificate) Plan 22SP

The General Office certificate prepares individuals for office positions such as general office clerk, general office assistant, and clerk-typist. This certificate emphasizes skills needed for entry-level positions and career advancement.

<b>First Semester</b> .....	<b>7</b>
AOS 111 Business Communication <i>or</i>	
AOS 172 Business English.....	3
AOS 170 Computer Keyboarding I .....	2
AOS 171 Computer Keyboarding II .....	2
<b>Second Semester</b> .....	<b>9</b>
AOS 112 Computer Basics/Software Applications .....	3
AOS 113 Comprehensive Word Processing.....	3
AOS 178 Intermediate Keyboarding .....	3
<b>Total Hours for Certificate</b> .....	<b>16</b>

Gainful Employment Information: [www.clcillinois.edu/geoas](http://www.clcillinois.edu/geoas)

### Office Professional (Certificate) Plan 22SN

The Office Professional certificate prepares individuals for positions using current industry software. Students complete word processing, presentation software, spreadsheet and information management courses.

<b>First Semester</b> .....	<b>7</b>
AOS 113 Comprehensive Word Processing .....	3
AOS 114 Outlook .....	1
CIT 111 Comprehensive Spreadsheets .....	3
<b>Second Semester</b> .....	<b>6</b>
AOS 118 Advanced Word Processing/ Desktop Publishing .....	3
AOS 215 Presentation Software .....	3
<b>Total Hours for Certificate</b> .....	<b>13</b>

## Associate in Applied Science and Career Certificates

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### Administrative Assistant (Certificate) Plan 22SO

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The Administrative Assistant certificate prepares individuals to perform a variety of advanced tasks and assume responsibility in the general office environment in positions with titles such as general office assistant and word processor. This certificate emphasizes word processing and related office skills for both entry-level positions and career advancement.

<b>First Semester</b>	<b>.....12</b>
AOS 112 Computer Basics/Software Applications	.....3
AOS 113 Comprehensive Word Processing	.....3
AOS 172 Business English	.....3
AOS 178 Intermediate Keyboarding	.....3
<b>Second Semester</b>	<b>.....9</b>
AOS 111 Business Communication	.....3
AOS 118 Advanced Word Processing/Desktop Pub	....3
AOS 215 Presentation Software	.....3
<b>Third Semester</b>	<b>.....9</b>
AOS 214 Administrative Office Procedures	.....3
CIT 111 Comprehensive Spreadsheets	.....3
AOS Elective (see list below)	.....3
<b>Total Hours for Certificate</b>	<b>.....30</b>

#### Administrative Assistant Certificate Electives

Select 3 hours of electives. Other electives may be chosen with consent of an AOS faculty advisor.

AOS	Elective (except AOS 170 or AOS 171)	....1-3
EWE 220	Cooperative Work Experience I	.....1-3

Gainful Employment Information: [www.clcillinois.edu/geaos](http://www.clcillinois.edu/geaos)

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### Administrative Leadership (Certificate) Plan 22SQ

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The Administrative Leadership certificate provides individuals an opportunity to improve skills needed in their present positions and gain competencies necessary for advancement and growth. This certificate concentrates on communication, managerial, and leadership skills for self-development and improved career opportunities.

<b>First Semester</b>	<b>.....6</b>
AOS 214 Administrative Office Procedures	.....3
AOS 237 Managerial Communication	.....3
<b>Second Semester</b>	<b>.....6</b>
AOS 233 Management Skills	.....3
AOS 253 Leadership	.....3
<b>Total Hours for Certificate</b>	<b>.....12</b>

For more information on recommended courses or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047:

Joe Gehrke

## Architectural Technology

Engineering, Math and Physical Sciences Division  
Room T302, (847) 543-2044

*(Program Inactive for New Enrollment Effective Fall 2017)*

### Architectural Technology (Associate in Applied Science) Plan 24CB

This program prepares graduates to assume a variety of duties in the architectural profession including drawing construction working drawings, design development drawings, renderings, cost estimating, specification writing, structural design and detailing, construction supervision, sales of materials and equipment, facilities engineering, building inspection and other building and zoning work. Graduates may be employed with architects, engineers, contractors, government agencies or others in the industry.

For students interested in **Sustainable Programs**, please see page 221 for options, or contact the identified department chair for more information.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

#### Required General Education Coursework .....15

ARC	228	History of Architecture.....	3
CMM	122	Business and Professional Speaking .....	3
ECO	110	Economics for Business and Industry <i>or</i>	
PSY	122	Industrial/Organizational Psychology .....	3
ENG	120	Technical Composition I .....	3
MTH	117	Technical Mathematics I .....	3

#### Required ARC Coursework .....14

ARC	121	Architectural Graphics .....	3
ARC	171	Architectural Working Drawings .....	3
ARC	215	Architectural Project Planning .....	4
ARC	251	Architectural Analysis .....	3
ARC	275	Portfolio and Professional Development .....	1

#### Required CAD/CMT Coursework .....16

CAD	117	Introduction to AutoCAD.....	3
CAD	178	Introduction to Revit .....	3
CMT	110	Intro to the Built Environment.....	1
CMT	113	Construction Materials .....	3
CMT	118	Mechanical and Electrical Equipment .....	3
CMT	119	Specifications and Building Codes .....	3

#### Additional Required Coursework .....18

EGR	115	Applied Statics for Technology .....	3
EGR	215	Mechanics of Materials for Technology.....	3
EWE	220	Cooperative Work Experience I .....	3
MTH	118	Technical Mathematics II.....	4
PHY	121	General Physics I .....	5

#### Total Hours for A.A.S. Degree .....63

*(Program Inactive for New Enrollment Effective Fall 2017)*

### Architectural Technology (Certificate) Plan 24CF

Students may earn a certificate in Architectural Technology by completing thirty-four hours of coursework selected from the list below. Other subjects may be taken as part of the program with advisor approval

#### Required Coursework

ARC	121	Architectural Graphics .....	3
ARC	170	Architectural Design <i>or</i>	
ARC	251	Architectural Analysis .....	3
ARC	171	Architectural Working Drawings .....	3
ARC	215	Architectural Project Planning .....	4
ARC	228	History of Architecture.....	3
ARC	275	Portfolio and Professional Development .....	1
CAD	117	Introduction to AutoCAD.....	3
CAD	178	Introduction to Revit .....	3
MTH	117	Technical Mathematics I .....	3
		Elective from list below .....	8

#### Electives

(See advisor to choose appropriate coursework depending on specialization)

ARC	216	Architectural Illustration .....	3
ARC	299	Special Topics: Architecture Technology.....	1-4
CAD	177	Civil Drafting .....	3
CAD	217	AutoCAD II .....	3
CMT	110	Introduction to the Built Environment.....	1
CMT	113	Construction Materials .....	3
CMT	117	Construction Methods .....	3
CMT	118	Mechanical and Electrical Equipment .....	3
CMT	119	Specifications and Building Codes .....	3
CMT	214	Construction Estimating .....	3

#### Total Hours for Certificate .....34

Gainful Employment Information: [www.clcillinois.edu/gearc](http://www.clcillinois.edu/gearc)

For more information on recommended courses or program specific advising, contact faculty member David Petrulis or the Engineering, Math and Physical Sciences division at (847) 543-2044.

## Automotive Collision Repair

Engineering, Math and Physical Sciences Division  
Room T302, (847) 543-2044

The Automotive Collision Repair program offers an Associate in Applied Science degree and four certificates. These programs will provide students with the entry-level skills needed to enter the collision repair industry. The certificates allow students to specialize in one or more areas of collision repair and prepare students for employment in the automotive body repair and painting industry. The courses use the I-Car curriculum and students have the opportunity to earn I-Car course credit. The program is certified in all four areas by NATEF (National Automotive Technicians Education Foundation, Inc.). This is the highest level of certification that NATEF awards. NATEF was founded in 1983 as an independent, non-profit organization with a single mission: to evaluate technician training programs against standards developed by the automotive industry and recommend qualifying programs for certification (accreditation) by the National Institute for Automotive Service Excellence (ASE).

*ACR Courses require basic hand tools and personal safety equipment.*

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

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### Automotive Collision Repair (Associate in Applied Science) Plan 24AN

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#### Non-Structural Repair Technician Specialty Track

<b>First Semester</b> .....	<b>14</b>
ACR 110 Introduction to Automotive Collision Repair .....	3
ACR 112 Non-Structural Repair I .....	5
ACR 131 Automotive Refinishing I.....	3
MTH 114 Applied Mathematics I <i>or</i> MTH Elective (higher than MTH 114) .....	3
<b>Second Semester</b> .....	<b>14</b>
ACR 115 Automotive Welding .....	5
ACR 119 Paintless Dent Removal .....	3
ACR 215 Automotive Detailing .....	3
ENG 120 Technical Composition <i>or</i> ENG 121 English Composition I .....	3
<b>Third Semester</b> .....	<b>16</b>
ACR 138 Automotive Electrical Systems .....	5
ACR 212 Non-Structural Repair II.....	5
ACR 235 Damage Analysis/Shop Procedures .....	3
Humanities or Fine Arts Elective* .....	3

<b>Fourth Semester</b> .....	<b>16</b>
ACR 137 Mechanical Systems .....	5
ACR 230 Structural Repair.....	5
CMM 111 Communication Skills <i>or</i> CMM 121 Fundamentals of Speech.....	3
Social Sciences Elective.....	3
<b>Total Hours for A.A.S. Degree</b> .....	<b>60</b>

#### Refinishing Technician Specialty Track

<b>First Semester</b> .....	<b>14</b>
ACR 110 Introduction to Automotive Collision Repair .....	3
ACR 112 Non-Structural Repair I .....	5
ACR 131 Automotive Refinishing I.....	3
MTH 114 Applied Mathematics I <i>or</i> MTH Elective (higher than MTH 114) .....	3
<b>Second Semester</b> .....	<b>16</b>
ACR 132 Refinishing II .....	5
ACR 138 Automotive Electrical Systems .....	5
ACR 215 Automotive Detailing .....	3
ENG 120 Technical Composition <i>or</i> ENG 121 English Composition I .....	3
<b>Third Semester</b> .....	<b>18</b>
ACR 115 Automotive Welding .....	5
ACR 137 Mechanical Systems.....	5
ACR 233 Refinishing III .....	5
Humanities or Fine Arts Elective* .....	3
<b>Fourth Semester</b> .....	<b>12</b>
ACR 234 Refinishing IV .....	3
ACR 235 Damage Analysis .....	3
CMM 111 Communication Skills <i>or</i> CMM 121 Fundamentals of Speech.....	3
Social Sciences Elective.....	3
<b>Total Hours for A.A.S. Degree</b> .....	<b>60</b>

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### Automotive Collision Repair (Certificate) Plan 24AE

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The automotive collision repair certificate prepares students for employment as an entry level automotive collision technician. Coursework places a strong emphasis on the understanding of panel replacement, dent repair, plastic repair, and automotive welding. Students learn foundational repair theories and develop skills in panel replacement and alignment, dent repair, plastic repair, vehicle glass, and automotive welding. Upon completion of coursework students have the opportunity to earn I-CAR program certification.

ACR 110 Introduction to Automotive Collision Repair .....	3
ACR 112 Non-Structural Repair I .....	5

ACR 115	Automotive Welding.....	5
ACR 138	Automotive Electrical Systems .....	5
ACR 212	Non-Structural Repair II .....	5

**Total Hours for Certificate .....23**

Gainful Employment Information: [www.clcillinois.edu/geacr](http://www.clcillinois.edu/geacr)

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### Automotive Damage Analysis (Certificate) Plan 24AK

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The damage analysis certificate prepares students for employment as automotive damage estimator assistants. Coursework places a strong emphasis on the understanding of automotive collision repair damage analysis, damage estimates preparation, shop management and operations. Students learn to use various estimating software and to develop both written and computer generated damage analysis reports. Upon completion of coursework students have the opportunity to earn I-CAR program certification.

ACR 110	Introduction to Automotive Collision Repair .....	3
ACR 112	Non-Structural Repair I .....	5
ACR 131	Automotive Refinishing I.....	3
ACR 235	Damage Analysis/Shop Procedures .....	3

**Total Hours for Certificate .....14**

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### Automotive Structural Repair Technician (Certificate) Plan 24AL

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The automotive structural repair certificate prepares students for employment as automotive structural technician assistants. Coursework places a strong emphasis on the understanding of automotive structural repair theories, reinforced while developing hands-on skills, needed to enter the collision repair industry. Students learn to disassemble and assemble vehicles exterior components, remove and install both stationary and movable glass, sheet metal dent repair including sectioning of vehicle panels, automotive welding, various vehicle measuring systems, and a working knowledge of vehicle mechanical systems. Upon completion of coursework students have the opportunity to earn I-CAR program certification.

ACR 110	Introduction to Automotive Collision Repair .....	3
ACR 112	Non-Structural Repair I .....	5
ACR 115	Automotive Welding.....	5
ACR 137	Automotive Mechanical Systems.....	5
ACR 230	Structural Repair I .....	5

**Total Hours for Certificate .....23**

Gainful Employment Information: [www.clcillinois.edu/geacr](http://www.clcillinois.edu/geacr)

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### Automotive Refinishing Technician (Certificate) Plan 24AM

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The automotive refinishing technician certificate prepares students for entry level employment as an automotive refinishing technician. Coursework places a strong emphasis on the understanding of automotive finishes, application techniques, and final surface preparation. Students will acquire the knowledge and skills necessary to prepare vehicles for the finishing process, the application of undercoat, topcoat, and tri-coat finishes, and repairs to vehicle finishes. Upon completion of coursework students have the opportunity to earn I-CAR program certification.

ACR 110	Introduction to Automotive Collision Repair .....	3
ACR 131	Automotive Refinishing I.....	3
ACR 132	Automotive Refinishing II .....	5
ACR 215	Automotive Detailing .....	3
ACR 233	Automotive Refinishing III .....	5
ACR 234	Refinishing IV - Custom Painting .....	3

**Total Hours for Certificate .....22**

Gainful Employment Information: [www.clcillinois.edu/geacr](http://www.clcillinois.edu/geacr)

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### Automotive Collision Repair Assistant (Certificate) Plan 24AO

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This certificate prepares students for employment as an automotive collision repair assistant. Coursework places a strong emphasis on the understanding on shop safety, removal and installation of bolted vehicle panels, automotive detailing, and damage estimating. Students will learn foundational collision repair theories while developing skills in the areas of dent repair, plastic repair, movable glass, panel removal and installation, preparation of vehicle for refinishing, and reading of damage estimates. Upon completion of coursework students have the opportunity to earn I-CAR program certification.

ACR 110	Introduction to Automotive Collision Repair .....	3
ACR 112	Non-Structural Repair I .....	5
ACR 119	Paintless Dent Removal .....	3
ACR 131	Automotive Refinishing I.....	3
ACR 215	Automotive Detailing .....	3

**Total Hours for Certificate .....17**

Gainful Employment Information: [www.clcillinois.edu/geacr](http://www.clcillinois.edu/geacr)

For more information on recommended courses or program specific advising, contact faculty member Octavio Cavazos or the Engineering, Math and Physical Sciences division at (847) 543-2044.

## Automotive Technology

**Engineering, Math and Physical Sciences Division**  
**Room T302, (847) 543-2044**

The Automotive Technology program offers courses leading to an Associate in Applied Science, Automotive Technician. This program will provide students with a solid foundation and a variety of skills to enter the automotive industry, or to pursue further undergraduate study. The program is Master Certified by the National Automotive Technician Education Foundation, Inc. (NATEF). This is the highest level of certification that NATEF awards. NATEF was founded in 1983 as an independent, non-profit organization with a single mission: to evaluate technician training programs against standards developed by the automotive industry and recommend qualifying programs for certification (accreditation) by the National Institute for Automotive Service Excellence (ASE).

Upon successful completion of the program, students will be prepared to take the ASE technician certification exams. Students who pass the ASE certifications exams and have completed the work experience required by ASE will be awarded certification by ASE.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

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### Automotive Technician (Associate in Applied Science) Plan 24AH

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Completion of this program prepares students for employment in the areas of automotive repair. Fifteen hours of required General Education coursework is built into the program.

<b>Phase I</b> .....	<b>17</b>
AUT 110 Introduction to Automotive Technology .....	3
AUT 111 Engine Repair .....	4
AUT 131 Auto Electrical I .....	4
ENG 120 Technical Composition <i>or</i>	
ENG 121 English Composition I .....	3
MTH 114 Applied Mathematics I <i>or</i>	
Elective (higher than MTH 114) .....	3

<b>Phase II</b> .....	<b>19</b>
AUT 112 Braking Systems .....	4
AUT 113 Suspension and Alignment .....	4
AUT 132 Manual Drive Train and Axles .....	4
AUT 231 Auto Electrical II .....	4
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech .....	3

<b>Phase III</b> .....	<b>21</b>
AUT 217 Automotive Service Consulting .....	3
AUT 232 Automatic Transmissions and Trans Axles .....	4
AUT 251 Powertrain Controls .....	4
AUT 275 Air Conditioning and Heating .....	4
Humanities or Fine Arts Elective* .....	3
Social Science Electives* .....	3

<b>Phase IV</b> .....	<b>11</b>
AUT 233 Advanced Driveline Systems .....	3
AUT 252 Powertrain Management .....	4
AUT 290 Advanced Specialization .....	4

**Total Hours for A.A.S. Degree** .....68

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### Automotive Technician (Certificate) Plan 24AV

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Completion of this program prepares students for employment in the areas of automotive repair.

AUT 110 Introduction to Automotive Technology .....	3
AUT 111 Engine Repair .....	4
AUT 112 Braking Systems .....	4
AUT 113 Suspension and Alignment .....	4
AUT 131 Auto Electrical I .....	4
AUT 132 Manual Drive Train and Axles .....	4
AUT 217 Automotive Service Consulting .....	3
AUT 231 Auto Electrical II .....	4
AUT 232 Automatic Transmission and Transaxle .....	4
AUT 233 Advanced Driveline Systems .....	3
AUT 251 Powertrain Controls .....	4
AUT 252 Powertrain Management .....	4
AUT 275 Air Conditioning and Heating .....	4
AUT 290 Advanced Specialization .....	4
MTH 114 Applied Mathematics I <i>or</i>	
Elective (higher than MTH 114) .....	3

**Total Hours for Certificate** .....56

Gainful Employment Information: [www.clcillinois.edu/geaut](http://www.clcillinois.edu/geaut)

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**Automotive Air Conditioning and Heating Specialist**

**(Certificate) Plan 24UG**

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This Certificate prepares students for initial employment diagnosing and repairing automotive heating and air conditioning systems.

AUT 110	Introduction to Automotive Technology	.....3
AUT 131	Auto Electrical I	.....4
AUT 275	Air Conditioning and Heating	.....4

**Total Hours for Certificate .....11**

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**Automotive Electrical Specialist**

**(Certificate) Plan 24UH**

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This Certificate prepares students for employment diagnosing and repairing chassis and body electrical and electronic circuits.

AUT 110	Introduction to Automotive Technology	.....3
AUT 131	Auto Electrical I	.....4
AUT 231	Auto Electrical II	.....4

**Total Hours for Certificate .....11**

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**Automotive Fuel Systems Specialist**

**(Certificate) Plan 24UI**

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This Certificate prepares students for initial employment diagnosing and repairing automotive engine fuel system problems.

AUT 110	Introduction to Automotive Technology	.....3
AUT 251	Powertrain Controls	.....4
AUT 252	Powertrain Management	.....4

**Total Hours for Certificate .....11**

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**Automotive Service Specialist**

**(Certificate) Plan 24UJ**

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This Certificate prepares students for initial employment in the automotive service industry.

AUT 110	Introduction to Automotive Technology	.....3
AUT 111	Engine Rebuilding	.....4
AUT 131	Auto Electrical I	.....4

**Total Hours for Certificate .....11**

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**Automotive Brakes and Suspension Specialist**

**(Certificate) Plan 24UK**

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This Certificate prepares students for initial employment diagnosing and repairing automotive braking, suspension and alignment problems.

AUT 110	Introduction to Automotive Technology	.....3
AUT 112	Braking Systems	.....4
AUT 113	Suspension and Alignment	.....4

**Total Hours for Certificate .....11**

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**Automotive Oil Change Specialist**

**(Certificate) Plan 24UL**

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This Certificate prepares students for employment in the oil change business.

AUT 110	Introduction to Automotive Technology	.....3
AUT 111	Engine Rebuilding	.....4
AUT 112	Braking Systems	.....4

**Total Hours for Certificate .....11**

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**Automotive Transmission Specialist**

**(Certificate) Plan 24UM**

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This Certificate prepares students for initial employment diagnosing and repairing manual transmission, automatic transmission and driveline problems.

AUT 110	Introduction to Automotive Technology	.....3
AUT 132	Manual Drive Train and Axles	.....4
AUT 232	Automatic Transmissions and Trans Axles	.....4

**Total Hours for Certificate .....11**

For more information on recommended courses or program specific advising, contact the following faculty members or the Engineering, Math and Physical Sciences division at (847) 543-2044:

Lance David / Derrek Keesling / Ted Wells

## Business Administration

**Business and Social Sciences Division,  
Room T302, (847) 543-2047**

The Business Administration Associate in Applied Science degree programs are designed to prepare students for entry-level positions in various fields of business. Four A.A.S. programs are offered, each focusing on a different specialization: Marketing, Management, Entrepreneurship/Small Business Management or general Business Administration. The first two-thirds of all the degree programs are the same. All students take the same General Education and Business Administration coursework and then choose an area of concentration for the final 21 credits. Four short-term certificates are offered in Marketing, Retail Management, Supervision and Entrepreneurship/Small Business Management. These certificates provide students with concentrated coursework to develop skills needed for career advancement.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

### Marketing

(Associate in Applied Science) Plan 22BC

#### First Semester (Fall) .....15-17

BUS 121	Introduction to Business	.....3
CIT 120*	Introduction to Computers <i>or</i>	
CIT 119	Introduction to Office Software	.....3
CMM 121	Fundamentals of Speech	.....3
ENG 121	English Composition I	.....3
MTH 122*	College Algebra <sup>1</sup> <i>or</i> MTH* Elective (higher number than MTH 122) <i>or</i>	
AOS 122	Business Mathematics	.....3-5

#### Second Semester (Spring) .....15-16

ACC 121*	Financial Accounting <i>or</i>	
ACC 112	Accounting Procedures I	.....3-4
BUS 122	Principles of Marketing	.....3
BUS 221	Business Law I	.....3
BUS 239	Social Media/Networking in Business (Spring only)	.....3
ENG 126*	Advanced Composition: Scientific and Technical Communications <i>or</i>	
AOS 111	Business Communication	.....3

#### Third Semester (Fall) .....15-16

ACC 122*	Managerial Accounting <i>or</i>	
BUS 111	Fundamentals of Finance (Fall only)	.....3-4
BUS 212	Business to Business Marketing (Fall only)	.....3
BUS 223	Principles of Management	.....3
ECO 222	Principles of Microeconomics	.....3
HUM 127	Critical Thinking <i>or</i>	
PHI 125	Introduction to Ethics	.....3

#### Fourth Semester (Spring).....15

BUS 213	Principles of Professional Selling (Spring only)	.....3
BUS 214	Advertising (Spring only)	.....3
BUS 237	Managerial Communication	.....3
BUS 238	Project Management	.....3
ECO 221	Principles of Macroeconomics	.....3

#### Total Hours for AAS Degree.....60-64

\*Preferred courses for students planning to transfer to a 4 year institution.

<sup>1</sup>There are prerequisites for MTH 122. If you do not meet those prerequisites, begin taking those classes this semester – use summer for the additional math class if needed.

Certain courses are only offered certain semesters. Please check the course scheduling guide listed on the web.

### Management

(Associate in Applied Science) Plan 22BD

#### First Semester (Fall) .....15-17

BUS 121	Introduction to Business	.....3
CIT 120*	Introduction to Computers <i>or</i>	
CIT 119	Introduction to Office Software	.....3
CMM 121	Fundamentals of Speech	.....3
ENG 121	English Composition I	.....3
MTH 122*	College Algebra <sup>1</sup> <i>or</i> MTH* Elective (higher number than MTH 122)* <i>or</i>	
AOS 122	Business Mathematics	.....3-5

#### Second Semester (Spring) .....15-16

ACC 121*	Financial Accounting <i>or</i>	
ACC 112	Accounting Procedures I	.....3-4
BUS 223	Principles of Management	.....3
ECO 221	Principles of Macroeconomics	.....3
ENG 126*	Advanced Composition: Scientific and Technical Communications <i>or</i>	
AOS 111	Business Communication	.....3
HUM 127	Critical Thinking <i>or</i>	
PHI 125	Introduction to Ethics	.....3

## Associate in Applied Science and Career Certificates

### Third Semester (Fall) .....15-16

ACC 122*	Managerial Accounting <i>or</i>	
BUS 111	Fundamentals of Finance (Fall only).....	3-4
BUS 221	Business Law I .....	3
BUS 238	Project Management .....	3
BUS 253	Leadership (Fall only) .....	3
ECO 222	Principles of Microeconomics.....	3

### Fourth Semester (Spring).....15

BUS 113	Human Resources Management (Spring only) ..	3
BUS 215	Operations Management (Spring only) .....	3
BUS 233	Management Skills (Spring only) .....	3
BUS 237	Managerial Communication .....	3
	BUS Elective (select from any BUS course not already applied toward this degree).....	3

### Total Hours for AAS Degree.....60-64

\*Preferred courses for students planning to transfer to a 4 year institution.

<sup>1</sup>There are prerequisites for MTH 122. If you do not meet those prerequisites, begin taking those classes this semester – use summer for the additional math class if needed.

Certain courses are only offered certain semesters. Please check the course scheduling guide listed on the web.

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### Business Administration (Associate in Applied Science) Plan 22BN

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### First Semester (Fall) .....15-17

BUS 121	Introduction to Business .....	3
CIT 120*	Introduction to Computers <i>or</i>	
CIT 119	Introduction to Office Software .....	3
CMM 121	Fundamentals of Speech .....	3
ENG 121	English Composition I.....	3
MTH 122*	College Algebra1 <i>or</i> MTH* Elective (higher number than MTH 122) <i>or</i>	
AOS 122	Business Mathematics .....	3-5

### Second Semester (Spring) .....15-16

ACC 121*	Financial Accounting <i>or</i>	
ACC 112	Accounting Procedures I .....	3-4
BUS 221	Business Law I .....	3
ECO 221	Principles of Macroeconomics .....	3
ENG 126*	Advanced Composition: Scientific and Technical Communications <i>or</i>	
AOS 111	Business Communication .....	3
HUM 127	Critical Thinking <i>or</i>	
PHI 125	Introduction to Ethics .....	3

### Third Semester (Fall) .....15-16

ACC 122*	Managerial Accounting <i>or</i>	
BUS 111	Fundamentals of Finance (Fall only).....	3-4
BUS 122	Principles of Marketing.....	3
BUS 223	Principles of Management.....	3
	BUS or ACC Electives (select from any BUS or ACC course not already applied toward this degree).....	6

### Fourth Semester (Spring).....15

BUS 237	Managerial Communication .....	3
BUS 238	Project Management .....	3
ECO 222	Principles of Microeconomics.....	3
	BUS or ACC Electives (select from any BUS or ACC course not already applied toward this degree).....	6

### Total Hours for AAS Degree.....60-64

\*Preferred courses for students planning to transfer to a 4 year institution.

<sup>1</sup>There are prerequisites for MTH 122. If you do not meet those prerequisites, begin taking those classes this semester – use summer for the additional math class if needed.

Certain courses are only offered certain semesters. Please check the course scheduling guide listed on the web.

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### Entrepreneurship/Small Business Management (Associate in Applied Science) Plan 22BL

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### First Semester (Fall) .....15-17

BUS 121	Introduction to Business .....	3
CIT 120*	Introduction to Computers <i>or</i>	
CIT 119	Introduction to Office Software .....	3
CMM 121	Fundamentals of Speech .....	3
ENG 121	English Composition I.....	3
MTH 122*	College Algebra1 <i>or</i> MTH* Elective (higher number than MTH 122) <i>or</i>	
AOS 122	Business Mathematics .....	3-5

### Second Semester (Spring) .....15-16

ACC 121*	Financial Accounting <i>or</i>	
ACC 112	Accounting Procedures I .....	3-4
BUS 131	Entrepreneurship (Spring only).....	3
BUS 221	Business Law I .....	3
ECO 221	Principles of Macroeconomics .....	3
ENG 126*	Advanced Composition: Scientific and Technical Communications <i>or</i>	
AOS 111	Business Communication .....	3

## Associate in Applied Science and Career Certificates

### Third Semester (Fall) .....15-16

ACC	122*	Managerial Accounting <i>or</i>	
BUS	111	Fundamentals of Finance (Fall only).....	3-4
BUS	290	Business Plan Development (Fall only) .....	3
ECO	222	Principles of Microeconomics.....	3
HUM	127	Critical Thinking <i>or</i>	
PHI	125	Introduction to Ethics .....	3
		BUS Elective (select from any BUS course not already applied toward this degree).....	3

### Fourth Semester (Spring).....15

BUS	122	Principles of Marketing.....	3
BUS	219	Small Business Management.....	3
BUS	223	Principles of Management.....	3
BUS	238	Project Management .....	3
		BUS Elective (select from any BUS course not already applied toward this degree).....	3

### Total Hours for AAS Degree.....60-64

\*Preferred courses for students planning to transfer to a 4 year institution.

†There are prerequisites for MTH 122. If you do not meet those prerequisites, begin taking those classes this semester – use summer for the additional math class if needed.

Certain courses are only offered certain semesters. Please check the course scheduling guide listed on the web.

Three Business Administration certificates are offered which provide concentrated course work in areas of Supervision, Marketing and Entrepreneurship/Small Business Management. These certificates emphasize skills needed in entry level areas for career advancement.

### Marketing (Certificate) Plan 22BG

AOS	111	Business Communication .....	3
BUS	121	Introduction to Business.....	3
BUS	122	Principles of Marketing .....	3
BUS	212	Business to Business Marketing <i>or</i>	
BUS	239	Social Media/Networking in Business .....	3
BUS	213	Principles of Professional Selling .....	3
BUS	214	Advertising .....	3
BUS	223	Principles of Management .....	3
BUS	237	Managerial Communication .....	3
BUS	238	Project Management.....	3

### Total Hours for Certificate .....27

Gainful Employment Information: [www.clcillinois.edu/gebis](http://www.clcillinois.edu/gebis)

### Retail Management (Certificate) Plan 22BF

This certificate prepares individuals to manage a variety of retail sale operations or lines of merchandise. Students who complete the eight course Retail Management Certificate program will develop a clear sense of the scope of retail management. The certificate is designed to prepare students for career opportunities and upward mobility in the retail industry. It is endorsed by the Western Association of Food Chains and Food Marketing Institute and is relevant in any retail sector as its course content and learning outcomes mirror those advocated by the National Retail Federation.

RMC	111	Human Relations in Business.....	3
RMC	112	Computer Basics/Software Applications .....	3
RMC	113	Human Resource Management .....	3
RMC	115	Elements of Supervision.....	3
RMC	117	Introduction to Marketing Concepts .....	3
RMC	119	Introduction to Financial Concepts .....	3
RMC	234	Principles of Retailing .....	3
RMC	237	Managerial Communication .....	3

### Total Hours for Certificate .....24

### Supervision (Certificate) Plan 22BK

AOS	111	Business Communication <i>or</i>	
CMM	111	Communication Skills .....	3
BUS	113	Human Resource Management .....	3
BUS	115	Elements of Supervision.....	3
BUS	121	Introduction to Business.....	3
BUS	223	Principles of Management .....	3
BUS	237	Managerial Communication .....	3
BUS	238	Project Management.....	3
		Electives (see list below) .....	6

### Total Hours for Certificate .....27

#### Electives

BUS	215	Operations Management.....	3
BUS	233	Management Skills.....	3
CMM	123	Dynamics of Small Group Discussion.....	3
PSY	225	Social Psychology .....	3

Gainful Employment Information: [www.clcillinois.edu/gebis](http://www.clcillinois.edu/gebis)

**Entrepreneurship/Small Business Management  
(Certificate) Plan 22BE**

ACC	112	Accounting Procedures I <i>or</i>	
ACC	121	Financial Accounting .....	3-4
BUS	121	Introduction to Business.....	3
BUS	122	Principles of Marketing .....	3
BUS	131	Entrepreneurship.....	3
BUS	219	Small Business Management .....	3
BUS	290	Business Plan Development.....	3
		Electives (see list below) .....	9-10

**Total Hours for Certificate .....27-29**

**Electives**

Select a minimum of nine hours from the list below:

BUS	113	Human Resource Management .....	3
BUS	115	Elements of Supervision.....	3
BUS	119	Personal Finance.....	3
BUS	213	Principles of Professional Selling .....	3
BUS	214	Advertising .....	3
BUS	221	Business Law I .....	3
BUS	222	Business Law II/ Corporate and Securities Law .....	3
BUS	223	Principles of Management .....	3
BUS	233	Management Skills .....	3
BUS	237	Managerial Communication.....	3
BUS	238	Project Management.....	3
BUS	253	Leadership .....	3
		Any ACC Course.....	3-4

Gainful Employment Information: [www.clcillinois.edu/gebus](http://www.clcillinois.edu/gebus)

For more information on recommended courses or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047:

Patty Clark / Kent Donewald / Robert Dodd  
Venkat Krishnamurthy / Lori Oriatti

## CAD Drafting Technology

**Engineering, Math and Physical Sciences Division**  
**Room T302, (847) 543-2044**

This program prepares students for employment and advancement in Computer Aided Design (CAD). CAD Drafters work under the supervision of an engineer or designer creating drawings. With additional education and experience the graduate may advance to designer, checker, or supervisor. Drawings are produced using a variety of CAD/CAM software. Students may select a program from the following options: Architectural/Civil, Mechanical, and Graphics Animation and Presentation. See Architectural, Civil, and Multimedia programs for related fields of study.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

### CAD Drafting Technology - Mechanical (Associate in Applied Science) Plan 24DC

<b>Required General Education Coursework</b> .....	<b>15</b>
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 122 Business and Professional Speaking <i>or</i>	
CMM 123 Dynamics of Small Group Discussion <i>or</i>	
CMM 128 Interviewing Practices .....	3
ECO 110 Economics for Business and Industry <i>or</i>	
ECO 221 Principles of Macroeconomics <i>or</i>	
PSC 122 State and Local Politics <i>or</i>	
Social Sciences Elective.....	3
ENG 120 Technical Composition I <i>or</i>	
ENG 121 English Composition I .....	3
MTH 115 Applied Mathematics II .....	3
ART 124 Drawing I <i>or</i>	
Humanities or Fine Arts Elective* .....	3
<b>Required CAD Coursework</b> .....	<b>34</b>
CAD 110 CAD/CAM Concepts .....	3
CAD 111 CAD Drafting Applications I .....	4
CAD 117 Introduction to AutoCAD.....	3
CAD 170 Introduction to SolidWorks .....	3
CAD 171 Introduction to Inventor .....	3
CAD 176 Introduction to Creo .....	3
CAD 211 Mechanical Detailing with GD and T .....	3
CAD 217 AutoCAD II .....	3
CAD 270 SolidWorks II .....	3
CAD 271 Inventor II.....	3
CAD 276 Creo II <i>or</i>	
Technical Elective	
(see Technical Electives list).....	3

<b>Required Mechanical Coursework</b> .....	<b>12</b>
CNC 218 Introduction to Master CAM .....	3
MET 111 Manufacturing Processes .....	3
MET 214 Mechanical Design and Drafting .....	3
MTT 112 Machining Principles .....	3
<b>Total Hours for A.A.S. Degree</b> .....	<b>61</b>

### CAD Drafting Technology – Graphics, Animation and Presentation (Associate in Applied Science) Plan 24DJ

<b>Required General Education Coursework</b> .....	<b>15</b>
ARC 228 History of Architecture <i>or</i>	
ART 124 Drawing I <i>or</i>	
Humanities or Fine Arts Elective* .....	3
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 122 Business and Professional Speaking <i>or</i>	
CMM 123 Dynamics of Small Group Discussion <i>or</i>	
CMM 128 Interviewing Practices .....	3
ENG 120 Technical Composition I <i>or</i>	
ENG 121 English Composition I .....	3
MTH 115 Applied Mathematics II .....	3
Social Science Elective* .....	3
<b>Required CAD Coursework</b> .....	<b>31</b>
CAD 110 CAD/CAM Concepts .....	3
CAD 111 CAD Drafting Applications I .....	4
CAD 117 Introduction to AutoCAD.....	3
CAD 171 Introduction to Inventor .....	3
CAD 170 Introduction to SolidWorks <i>or</i>	
CAD 176 Introduction to Creo .....	3
CAD 179 Introduction to Autodesk 3ds Max.....	3
CAD 178 Introduction to Revit .....	3
CAD 273 CAD Specialization <i>or</i>	
EWE 220 Cooperative Work Experience I .....	3
CAD 279 Design Visualization Using 3ds Max <i>or</i>	
ARC 216 Architectural Illustration .....	3
Technical Elective	
(see Technical Electives list).....	3

<b>Required Graphics, Animation      and Presentation Coursework</b> .....	<b>15</b>
ARC 121 Architectural Graphics .....	3
CAD 217 AutoCAD II .....	3
ART 222 Introduction to Computer Art.....	3
ART 263 2D Computer Animation .....	3
DMD 111 Introduction to Digital Media.....	3
<b>Total Hours for A.A.S. Degree</b> .....	<b>61</b>

*(Program Inactive for New Enrollment Effective Spring 2018)*

**CAD Drafting Technology – Architectural/Civil  
(Associate in Applied Science) Plan 24DR**

<b>Required General Education Coursework .....15</b>		
ARC 228	History of Architecture <i>or</i>	
ART 124	Drawing I <i>or</i> Humanities or Fine Arts Elective* .....3	
CMM 111	Communication Skills <i>or</i>	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 122	Business and Professional Speaking <i>or</i>	
CMM 123	Dynamics of Small Group Discussion <i>or</i>	
CMM 128	Interviewing Practices .....3	
ECO 110	Economics for Business and Industry <i>or</i>	
ECO 221	Principles of Macroeconomics <i>or</i>	
PSC 122	State and Local Politics <i>or</i> Social Sciences Elective* .....3	
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....3	
MTH 115	Applied Mathematics II .....3	
<b>Required CAD Coursework .....27</b>		
CAD 110	CAD/CAM Concepts .....3	
CAD 117	Introduction to AutoCAD.....3	
CAD 177	Civil Drafting .....3	
CAD 178	Introduction to Revit .....3	
CAD 179	Introduction to Autodesk 3ds Max.....3	
CAD 217	AutoCad II .....3	
CAD 273	CAD Specialization <i>or</i>	
CAD 278	Revit II .....3	
EWE 220	Cooperative Work Experience I .....3	
CAD 279	Design Visualization Using 3ds Max <i>or</i>	
ARC 216	Architectural Illustration .....3	
<b>Required Architectural Coursework .....24-25</b>		
ARC 121	Architectural Graphics .....3	
ARC 170	Architectural Design.....3	
ARC 171	Architectural Working Drawings .....3	
ARC 271	Commercial Working Drawings.....3	
CMT 111	Construction Layout <i>or</i>	
CIV 111	Basic Surveying .....3-4	
CMT 113	Construction Materials .....3	
CMT 117	Construction Methods .....3	
CIV 213	Subdivision Planning and Design .....3	
<b>Total Hours for A.A.S. Degree .....66-67</b>		

**CAD Drafting Technology – Graphics,  
Animation and Presentation  
(Certificate) Plan 24DK**

This advanced certificate is designed for the individual who possesses education or experience in computer aided design (CAD) or graphic arts. The certificate fills the gap between CAD and computer-generated art and provides the graduate with the skills to create sophisticated computer enhanced presentations for use in a variety of applications.

ARC 121	Architectural Graphics .....3
ART 222	Computer Art I .....3
ART 263	2D Computer Animation .....3
CAD 110	CAD/CAM Concepts .....3
CAD 117	Introduction to AutoCAD <i>or</i>
CAD 111	CAD Drafting Applications I .....3-4
CAD 179	Introduction to Autodesk 3ds Max.....3
CAD 279	Design Visualization Using 3ds Max.....3
DMD 111	Introduction to Digital Media.....3

**Total Hours for Certificate .....24-25**

Gainful Employment Information: [www.clcillinois.edu/gecad](http://www.clcillinois.edu/gecad)

**CAD Drafting Technology – Architectural  
(Certificate) Plan 24DN**

ARC 121	Architectural Graphics .....3
CAD 110	CAD-CAM Concepts .....3
CAD 117	Introduction to AutoCAD.....3
CAD 178	Introduction to Revit .....3
CAD 179	Introduction to Autodesk 3ds Max.....3
CAD 217	AutoCAD II .....3
CAD 278	Revit II .....3
CAD 279	Design Visualization Using 3ds Max.....3

**Total Hours for Certificate .....24**

Gainful Employment Information: [www.clcillinois.edu/gecad](http://www.clcillinois.edu/gecad)

## Associate in Applied Science and Career Certificates

### CAD Drafting Technology – 3D Parametric (Certificate) Plan 24DP

CAD 170	Introduction to SolidWorks	3
CAD 171	Introduction to Inventor	3
CAD 176	Introduction to Creo	3
CAD 211	Mechanical Detailing with GD and T	3
CAD 270	SolidWorks II	3
CAD 271	Inventor II	3
CAD 276	Creo II	3

**Total Hours for Certificate** .....21

Gainful Employment Information: [www.clcillinois.edu/gecad](http://www.clcillinois.edu/gecad)

### CAD Drafting Technology – Autocad (Certificate) Plan 24DQ

CAD 110	CAD/CAM Concepts	3
CAD 117	Introduction to AutoCAD	3
CAD 217	AutoCAD II	3
CAD 111	CAD Drafting Applications I	4

**Total Hours for Certificate** .....13

Gainful Employment Information: [www.clcillinois.edu/gecad](http://www.clcillinois.edu/gecad)

### CAD Drafting Technology – Solidworks (Certificate) Plan 24DS

CAD 170	Introduction to SolidWorks	3
CAD 270	SolidWorks II	3
CAD 211	Mechanical Detailing with GD and T	3

**Total Hours for Certificate** .....9

### CAD Drafting Technology – Creo (Certificate) Plan 24DT

CAD 176	Introduction to Creo	3
CAD 211	Mechanical Detailing with GD and T	3
CAD 276	Creo II	3

**Total Hours for Certificate** .....9

### CAD Drafting Technology – Autodesk Inventor (Certificate) Plan 24DU

CAD 171	Introduction to Inventor	3
CAD 211	Mechanical Detailing with GD and T	3
CAD 271	Inventor II	3

**Total Hours for Certificate** .....9

#### Technical Electives:

A broad choice of technical electives is available. See an advisor in the CAD department for approval of electives.

ARC 121	Architectural Graphics	3
CAD 110	CAD-CAM Concepts	3
CAD 111	CAD Drafting Applications I	4
CAD 117	Introduction to AutoCAD	3
CAD 170	Introduction to SolidWorks	3
CAD 171	Introduction to Inventor	3
CAD 176	Introduction to Creo	3
CAD 177	Civil Drafting	3
CAD 178	Introduction to Revit	3
CAD 179	Introduction to Autodesk 3ds Max	3
CAD 211	Mechanical Detailing with GD and T	3
CAD 217	AutoCAD II	3
CAD 270	SolidWorks II	3
CAD 271	Inventor II	3
CAD 273	Advanced CAD Specialization	1-3
CAD 276	Creo II	3
CAD 278	Revit II	3
CAD 279	Design Visualization Using 3ds Max	3
CNC 218	Introduction to MasterCam	3
ELT 111	Electronic Drafting	2
EWE 220	Cooperative Work Experience I	2-4
LPO 111	Fundamentals of Light and Lasers	4
LPO 145	Photonic CAD Applications	3
MET 111	Manufacturing Processes	3
MET 112	Basic Metallurgy I	3
MET 214	Mechanical Design and Drafting	3
MTH 115	Applied Mathematics II	3
MTT 111	Machine Shop I	3
MTT 112	Machining Principles	3

For more information on recommended courses or program specific advising, contact the following faculty members or the Engineering, Math and Physical Sciences division at (847) 543-2044:

Steve Dulmes / Tina Ye

## Cisco Networking

See Computer Information Technology.

# Computer Information Technology

**Business and Social Sciences Division,  
Room T302, (847) 543-2047**

The Computer Information Technology degree programs provide five specialty options with a common core of general education, business and introductory computer courses. These specialty options include Associate in Applied Science degrees in the areas of Network Administration and Security, Computer Forensics, Web Programming, .NET Programming, and Microsoft™ Office Application Specialist. Certificate options in multiple areas are also offered.

The information technology emphasis of these degree programs is a Windows-based environment using office applications and open source tools.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

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## Office Application Specialist (Associate in Applied Science) Plan 22CB

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This degree prepares students to use MS Office components to implement business processes and documents. Through the use of general education, business, and computer courses, this program provides an understanding of the system and networking environment needed for application development today.

<b>First Semester (Fall)</b> .....	<b>15-17</b>
CIT 111 Comprehensive Spreadsheets .....	3
CIT 120 Introduction to Computers.....	3
AOS 113 Comprehensive Word Processing .....	3
CIT 131 Windows Operating System .....	3
AOS 122 Business Mathematics <i>or</i>	
MTH 122 College Algebra <i>or</i>	
MTH Elective (higher MTH 122)*** .....	3-5
<b>Second Semester (Spring)</b> .....	<b>15</b>
CIT 112 Comprehensive Database .....	3
CIT 114 Introduction to Networking for Programmers <sup>1</sup> <i>or</i>	
Office Application Elective .....	3
CIT 170 Creating Web Pages.....	3
CIT 210 Programming for Office Applications <sup>2</sup> .....	3
ENG 121 English Composition I.....	3

<b>Third Semester (Fall)</b> .....	<b>15-16</b>
ACC 112 Accounting Procedures I <i>or</i>	
ACC 121 Financial Accounting .....	3-4
AOS 215 Presentation Software .....	3
BUS 121 Introduction to Business .....	3
CIT 114 Introduction to Networking for Programmers <sup>1</sup> <i>or</i>	
Office Application Elective .....	3
CIT 271 Markup Language Programming.....	3

<b>Fourth Semester (Spring)</b> .....	<b>15-16</b>
CIT 114 Introduction to Networking for Programmers <sup>1</sup> <i>or</i>	
Office Application Elective .....	3
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices .....	3
Humanities or Fine Arts Elective <sup>3</sup> .....	3
Office Application Elective .....	3-4
Social Sciences Elective* .....	3

**Total Hours for AAS Degree.....60-64**

### Office Application Specialist Electives

Select 9-10 hours from the list below:

ACC 122 Managerial Accounting .....	4
CIT 113 Introduction to SQL .....	3
CIT 130 Operating Systems for A+ Certification.....	3
CIT 132 Linux Operating System.....	3
CIT 134 Introduction to Programming Concepts .....	3
CIT 171 Web Page Scripting .....	3
CIT 174 Adobe Dreamweaver .....	3
CIT 295 Internship .....	3
ELT 151 PC Hardware Fundamentals.....	3

\* To complete an A.A.S., students must meet General Requirements on page 121).

\*\* Certain classes are only offered specific semesters. Check the course scheduling guide.

\*\*\* There are prerequisites for Math courses. If you do not meet the prerequisites, begin taking these courses this semester.

<sup>1</sup> CIT 114: Introduction to Networking for Programmers is only offered every 3rd semester so you should enroll in it whenever it becomes available.

<sup>2</sup> CIT 210 Programming for Office Applications is not offered regularly so you should enroll in it whenever it becomes available.

<sup>3</sup> HUM 127 Critical Thinking, PHI 122 Logic, or PHI 125 Introduction to Ethics recommended.

## Associate in Applied Science and Career Certificates

### Network Administration and Security (Associate in Applied Science) Plan 22CD

This degree program prepares students in the installation, configuration, deployment and administration of network servers and security protocols. Through the use of general education, business, and computer courses, this program provides an understanding of the network infrastructure, IT security environment, and digital forensics methodologies required of network and IT security professionals.

<b>First Semester (Fall)</b> .....	<b>15-17</b>
CIT 120 Introduction to Computers.....	3
CIT 131 Windows Operating System .....	3
CIT 132 Linux Operating System .....	3
CIT 139 Cisco: Introduction to Networks .....	3
AOS 122 Business Mathematics <i>or</i>	
MTH 122 College Algebra <i>or</i>	
MTH Elective (higher MTH 122)***	3-5

<b>Second Semester (Spring)</b> .....	<b>15</b>
CIT 133 Network Automation .....	3
CIT 151 LAN Administration <i>or</i>	
CIT 230 Linux System Administration <sup>1</sup> .....	3
CIT 152 Network Security Fundamentals .....	3
CIT 159 Cisco: Routing and Switching.....	3
ELT 151 PC Hardware Fundamentals .....	3

<b>Summer Semester</b> .....	<b>3</b>
BUS 121 Introduction to Business .....	3

<b>Third Semester (Fall)</b> .....	<b>15</b>
CIT 252 Hardening the Infrastructure .....	3
CIT 255 Server Virtualization Technologies .....	3
CIT 256 Windows Forensic Analysis .....	3
ENG 121 English Composition I.....	3
PSY 121 Introduction to Psychology <i>or</i>	
PSY 122 Industrial/Organizational Psychology .....	3

<b>Fourth Semester (Spring)</b> .....	<b>16</b>
CIT 253 Network Defense and Countermeasures .....	3
CIT 254 Windows Directory Services.....	3
CIT 258 Network Forensics.....	4
CIT 272 Enterprise Messaging Administration .....	3
Humanities or Fine Arts Elective <sup>2</sup> .....	3

<b>Summer Semester</b> .....	<b>3</b>
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices .....	3

<b>Total Hours for AAS Degree</b> .....	<b>67-69</b>
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- \* To complete an A.A.S., students must meet General Requirements on page 121).
- \*\* Certain classes are only offered specific semesters. Check the course scheduling guide.
- \*\*\* There are prerequisites for Math courses. If you do not meet the prerequisites, begin taking these courses this semester.
- <sup>1</sup> CIT 230 Linux System Administration is not offered regularly so you should enroll in it whenever it becomes available.
- <sup>2</sup> HUM 127 Critical Thinking, PHI 122 Logic, or PHI 125 Introduction to Ethics recommended.

### Web Programming (Associate in Applied Science) Plan 22CJ

This degree prepares students for creating web pages and interfaces using client- and server-side programming for the development of web applications. Through the use of general education, business, and computer courses, the program provides an understanding of the system and networking environment needed for web development today.

<b>First Semester (Fall)</b> .....	<b>15-17</b>
CIT 120 Introduction to Computers.....	3
CIT 134 Introduction to Programming Concepts .....	3
CIT 170 Creating Web Pages.....	3
ENG 121 English Composition I.....	3
AOS 122 Business Mathematics <i>or</i>	
MTH 122 College Algebra <i>or</i>	
MTH Elective (higher MTH 122)***	3-5

<b>Second Semester (Spring)</b> .....	<b>15</b>
BUS 121 Introduction to Business .....	3
CIT 112 Comprehensive Database .....	3
CIT 114 Introduction to Networking for Programmers <sup>1</sup> .....	3
CIT 173 PHP Programming.....	3
PSY 121 Introduction to Psychology <i>or</i>	
PSY 122 Industrial/Organizational Psychology .....	3

<b>Third Semester (Fall)</b> .....	<b>15-16</b>
ACC 112 Accounting Procedures I <i>or</i>	
ACC 121 Financial Accounting .....	3-4
CIT 113 Introduction to SQL .....	3
CIT 171 Web Page Scripting .....	3
CIT 271 Markup Language Programming.....	3
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices .....	3

**Fourth Semester (Spring) .....15-16**  
 ACC 113 Accounting Procedures II *or*  
 ACC 122 Managerial Accounting *or*  
 BUS 111 Fundamentals of Finance .....3-4  
 CIT 132 Linux Operating System .....3  
 CIT 174 Adobe Dreamweaver .....3  
 CIT 270 Server Side Programming .....3  
 Humanities or Fine Arts Elective<sup>2</sup> .....3  
**Total Hours for AAS Degree.....60-64**

\* To complete an A.A.S., students must meet General Requirements on page 121).  
 \*\* Certain classes are only offered specific semesters. Check the course scheduling guide.  
 \*\*\* There are prerequisites for Math courses. If you do not meet the prerequisites, begin taking these courses this semester.  
<sup>1</sup> CIT 114: Introduction to Networking for Programmers is only offered every 3rd semester so you should enroll in it whenever it becomes available.  
<sup>2</sup> HUM 127 Critical Thinking, PHI 122 Logic, or PHI 125 Introduction to Ethics recommended.

**.NET Programming  
 (Associate in Applied Science) Plan 22CL**

This degree program prepares students to use .NET programming to develop and deploy desktop, web and product applications. Through the use of general education, business, and computer courses, this program provides an understanding of the system and networking environment needed for application development today.

**First Semester (Fall) .....15-17**  
 CIT 120 Introduction to Computers.....3  
 CIT 134 Introduction to Programming Concepts .....3  
 CIT 112 Comprehensive Database .....3  
 CIT 170 Creating Web Pages.....3  
 AOS 122 Business Mathematics *or*  
 MTH 122 College Algebra *or*  
 MTH Elective (higher MTH 122)\*\*\* .....3-5  
**Second Semester (Spring) .....15-16**  
 ACC 112 Accounting Procedures I *or*  
 ACC 121 Financial Accounting .....3-4  
 BUS 121 Introduction to Business .....3  
 CIT 114 Introduction to Networking  
 for Programmers<sup>1</sup> .....3  
 CIT 138 Introduction to C# Programming .....3  
 ENG 121 English Composition I.....3  
**Summer Semester .....4**  
 CIT 141 Programming in C++.....4

**Third Semester (Fall) .....16**  
 CIT 113 Introduction to SQL .....3  
 CIT 171 Web Page Scripting .....3  
 CIT 215 MS .NET Web Programming .....4  
 CIT 239 Systems Analysis .....3  
 CIT 241 Advanced C++.....3

**Fourth Semester (Spring) .....16-17**  
 CIT 216 MS .NET Framework Programming .....4  
 ACC 113 Accounting Procedures II *or*  
 ACC 122 Managerial Accounting *or*  
 BUS 111 Fundamentals of Finance .....3-4  
 CIT 277 MS .NET Software Development Capstone .....3  
 Humanities or Fine Arts Elective<sup>2</sup> .....3  
 PSY 121 Introduction to Psychology *or*  
 PSY 122 Industrial/Organizational Psychology .....3

**Summer Semester .....3**  
 CMM 111 Communication Skills *or*  
 CMM 121 Fundamentals of Speech *or*  
 CMM 128 Interviewing Practices .....3

**Total Hours for AAS Degree.....69-73**

\* To complete an A.A.S., students must meet General Requirements on page 121).  
 \*\* Certain classes are only offered specific semesters. Check the course scheduling guide.  
 \*\*\* There are prerequisites for Math courses. If you do not meet the prerequisites, begin taking these courses this semester.  
<sup>1</sup> CIT 114: Introduction to Networking for Programmers is only offered every 3rd semester so you should enroll in it whenever it becomes available.  
<sup>2</sup> HUM 127 Critical Thinking, PHI 122 Logic, or PHI 125 Introduction to Ethics recommended.

**Computer Forensics  
 (Associate in Applied Science) Plan 22CU**

**First Semester (Fall) .....15-17**  
 CIT 120 Introduction to Computers.....3  
 CIT 130 Operating Systems for A+ Certification .....3  
 CIT 155 Introduction to Computer Forensics .....3  
 ELT 151 PC Hardware Fundamentals .....3  
 Science or Math Elective\* .....3-5  
**Second Semester (Spring) .....15**  
 CIT 132 Linux Operating System .....3  
 CIT 139 Cisco: Introduction to Networks .....3  
 CRJ 121 Introduction to Criminal Justice .....3  
 CRJ 123 Introduction to Criminology I.....3  
 Humanities or Fine Arts Elective\*<sup>1</sup> .....3

## Associate in Applied Science and Career Certificates

<b>Third Semester (Fall)</b> .....	<b>18</b>
CIT 152 Network Security Fundamentals .....	3
CIT 156 Digital Evidence Recovery <sup>2</sup> .....	3
CIT 256 Windows Forensic Analysis .....	3
CRJ 219 Principles of Criminal Investigations .....	3
SOC 223 Deviance .....	3
ENG 120 Technical Composition <i>or</i> .....	3
ENG 121 English Composition I.....	3

<b>Fourth Semester (Spring)</b> .....	<b>14-16</b>
CIT 258 Network Forensics.....	4
CIT 259 Topics in Computer Forensics <sup>3</sup> .....	1-3
CMM 111 Communication Skills <i>or</i> .....	3
CMM 121 Fundamentals of Speech <i>or</i> .....	3
CMM 128 Interviewing Practices .....	3
CRJ 222 Criminal Procedural Law .....	3
CRJ 223 Ethics in Criminal Justice .....	3

**Total Hours for AAS Degree**.....**62-66**

\* To complete an A.A.S., students must meet General Requirements on page 121). These are prerequisites for Math courses. If you do not meet the prerequisites, begin taking these courses this semester.

\*\* Certain classes are only offered specific semesters. Check the course scheduling guide.

<sup>1</sup> Students may consider taking one or two summer classes to lighten up the load on other semesters

<sup>2</sup> CIT 156: Digital Evidence Recovery is only offered every 3rd semester so you should enroll in it whenever it becomes available.

<sup>3</sup> CIT 259 Topics in Computer Forensics is not offered regularly, so you should enroll in it whenever it becomes available.

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### Cisco Networking (Certificate) Plan 22CE

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This program provides students with a strong background in computer networking, including network fundamentals, routing, switching, network design, troubleshooting, and network security. The program prepares students for the Cisco Certified Entry Networking Technician (CCENT) and Cisco Certified Network Associate (CCNA) exams. The courses use instructional materials provided by Cisco and aligned with the exams. Students receive extensive hands-on laboratory practice in Cisco systems.

CIT 139 Cisco: Introduction to Networks .....	3
CIT 159 Cisco: Routing and Switching .....	3
CIT 218 Cisco: Scaling Networks .....	3
CIT 219 Cisco: Connecting WAN Networks .....	3

**Total Hours for Certificate** .....

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### Office Application Specialist (Certificate) Plan 22CG

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The Office Application Specialist certificate prepares students to apply information technology concepts to solve problems and increase efficiency in the workplace. The certificate develops proficiency in software applications involving data manipulation and management.

Students earning this certificate will be proficient in productivity software applications including word processing, spreadsheets, databases and presentation software, as well as gain work-related knowledge of web page development.

AOS 113 Comprehensive Word Processing.....	3
AOS 215 Presentation Software .....	3
CIT 111 Comprehensive Spreadsheets .....	3
CIT 112 Comprehensive Database .....	3
CIT 170 Creating Web Pages .....	3
CIT 210 Programming for Office Applications .....	3
CIT 271 Markup Language Programming .....	3

**Total Hours for Certificate** .....

Gainful Employment Information: [www.elcillinois.edu/gecit](http://www.elcillinois.edu/gecit)

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### Desktop Support Technician (Certificate) Plan 22CI

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This certificate prepares students for desktop support and customer support jobs. It prepares the student for the A+ Certification (PC-Technician) test and the Microsoft Desktop Support Technician Certification test. These two certifications are useful in obtaining an entry-level job in the Information Technology field.

CIT 130 Operating Systems for A+ Certification.....	3
CIT 157 Enterprise Desktop Support .....	3
ELT 151 PC Hardware Fundamentals.....	3

**Total Hours for Certificate** .....

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### Network Administration and Security (Certificate) Plan 22CK

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The Network Administration and Security certificate prepares students for careers in designing and administering computer networks. In addition, coursework for this curriculum addresses how to keep networks secure from outside intrusion and procedures on securing evidence if network security has been breached.

CIT 131 Windows Operating System.....	3
CIT 132 Linux Operating System.....	3
CIT 133 Network Automation .....	3
CIT 139 Cisco: Introduction to Networks .....	3

CIT	151	LAN Administration <i>or</i>	
CIT	230	Linux System Administration.....	3
CIT	152	Network Security Fundamentals .....	3
CIT	159	Cisco: Routing and Switches .....	3
CIT	252	Hardening the Infrastructure .....	3
CIT	253	Network Defense and Countermeasures .....	3
CIT	254	Windows Directory Services .....	3
CIT	255	Server Virtualization Technologies .....	3
CIT	256	Windows Forensic Analysis .....	3
CIT	258	Network Forensics .....	4
CIT	272	Enterprise Messaging Administration .....	3

**Total Hours for Certificate .....43**

Gainful Employment Information: [www.clcillinois.edu/gecit](http://www.clcillinois.edu/gecit)

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### Web Programming (Certificate) Plan 22CN

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The Web Programming certificate provides students with the necessary skills to begin a career in web development. The student will learn to create web pages and interfaces using client- and server-side programming for the development of web applications. The student will also develop web pages incorporating database applications and components, which will include database administration, security and maintenance.

CIT	113	Introduction to SQL .....	3
CIT	170	Creating Web Pages .....	3
CIT	171	Web Page Scripting .....	3
CIT	173	PHP Programming .....	3
CIT	174	Adobe Dreamweaver .....	3
CIT	270	Server Side Programming .....	3
CIT	271	Markup Language Programming .....	3

**Total Hours for Certificate .....21**

Gainful Employment Information: [www.clcillinois.edu/gecit](http://www.clcillinois.edu/gecit)

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### C++ Programming (Certificate) Plan 22CO

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The C++ Programming certificate is centered in object oriented technologies. The certificate is intended to enhance programming skills by providing knowledge and experience in the C++ language in a minimal amount of time. It includes interaction with databases and the utilization of a systems approach to problem solving.

CIT	112	Comprehensive Database .....	3
CIT	113	Introduction to SQL .....	3
CIT	141	Programming in C++ .....	4
CIT	239	Systems Analysis .....	3
CIT	241	Advanced C++ .....	3

**Total Hours for Certificate .....16**

Gainful Employment Information: [www.clcillinois.edu/gecit](http://www.clcillinois.edu/gecit)

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### .NET Programming (Certificate) Plan 22CQ

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The .NET Programming certificate focuses on the use of the .NET Framework classes to build current enterprise applications. It is intended to enhance programming skills by providing knowledge and experience in the .NET Framework classes in a minimal amount of time. It includes distributed applications, interaction with databases and the utilization of the .NET systems approach to problem solving.

CIT	113	Introduction to SQL .....	3
CIT	138	Introduction to C# Programming .....	3
CIT	215	Microsoft .NET Web Programming .....	4
CIT	216	Microsoft .NET Framework Programming ..	4
CIT	239	Systems Analysis .....	3
CIT	277	MS .NET Software Development Capstone	3

**Total Hours for Certificate .....20**

Gainful Employment Information: [www.clcillinois.edu/gecit](http://www.clcillinois.edu/gecit)

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### Computer Forensics Analyst (Certificate) Plan 22CT

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This program is designed for individuals in both law enforcement and the private sector who wish to learn the skills needed to become a Computer Forensics Analyst. The primary responsibilities of a Computer Forensics Analyst are to collect, secure, and analyze data with evidential value found on digital media and data networks. Students completing this certificate will have a solid foundation in operating systems, networking, digital forensic methodologies and IT Security. Students will learn crime scene notetaking, report writing, and presentation of findings.

CIT	120	Introduction to Computers .....	3
CIT	130	Operating Systems for A+ Certification.....	3
CIT	132	Linux Operating System.....	3
CIT	139	Cisco: Introduction to Networks .....	3
CIT	152	Network Security Fundamentals .....	3
CIT	155	Introduction to Computer Forensics.....	3
CIT	156	Digital Evidence Recovery.....	3
CIT	256	Windows Forensic Analysis .....	3
CIT	258	Network Forensics .....	4
CIT	259	Topics in Computer Forensics .....	1-3
ELT	151	PC Hardware Fundamentals.....	3

**Total Hours for Certificate .....32-34**

Gainful Employment Information: [www.clcillinois.edu/gecit](http://www.clcillinois.edu/gecit)

## Associate in Applied Science and Career Certificates

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### Security Administration (Certificate) Plan 22CV

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The Security Administration certificate is designed for students who currently are employed as Network Administrators or have taken courses in Network Administration. Coursework for this certificate addresses how to keep networks secure from outside intrusion and procedures on securing evidence if network security has been breached. Students pursuing this certificate should have knowledge of Windows PowerShell.

CIT	152	Network Security Fundamentals .....	3
CIT	155	Introduction to Computer Forensics.....	3
CIT	156	Digital Evidence Recovery.....	3
CIT	252	Hardening the Infrastructure .....	3
CIT	253	Network Defense and Countermeasures .....	3
CIT	256	Windows Forensic Analysis .....	3
CIT	258	Network Forensics .....	4

**Total Hours for Certificate .....**22

Gainful Employment Information: [www.clcollinois.edu/gecit](http://www.clcollinois.edu/gecit)

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### Game Development (Certificate) Plan 22CX

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The Game Development certificate is for those students who desire to be employed in the video game industry as game developers. Upon completion of this certificate, students will have the knowledge and skill in game strategies, game programming and mathematics to qualify for entry-level game development employment.

CIT	120	Introduction to Computers .....	3
CIT	134	Introduction to Programming Concepts .....	3
CIT	141	Programming in C++ .....	4
CIT	175	Game Development and Design Strategies.....	3
CIT	176	2-D Game Development.....	3
CIT	177	3-D Game Development.....	3
CIT	241	Advanced C++ .....	3
CIT	275	Mathematics for Game Development .....	3
CIT	276	Game Development Projects .....	3

**Total Hours for Certificate .....**28

For more information on recommended courses or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047:

Changyi Chen / Dan Dainton / Sanjay Kumar  
John North / Bob Scherbaum

# Computerized Numerical Control Programming

Engineering, Math and Physical Sciences Division  
Room T302, (847) 543-2044

## Computerized Numerical Control Programming (Associate in Applied Science) Plan 24NA

The Computerized Numerical Control program is designed to provide knowledge and skills needed for employment and advancement in the field of CNC Programming. Programming emphasis is on FANUC and HAAS CNC controlled lathes, milling machines and Wire EDM. Advanced placement in the program may be arranged for experienced programmers and operators. The CNC program is accredited by the National Institute for Metalworking Skills (NIMS) and national credentialing is available. Upon completion of certain courses, students will be prepared to take credentialing exams for an additional fee. To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

### Required General Education Coursework .....15

CMM 111	Communication Skills	.....3
ECO 110	Economics for Business and Industry	.....3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I	.....3
MTH 115	Applied Mathematics II	.....3
	Humanities or Fine Arts Elective*	.....3

### Required Phase I Coursework .....9

CNC 110	CNC Operations I	.....3
EGR 121	Engineering Graphics	.....3
MTT 111	Machine Shop I <i>or</i>	
MTT 112	Machining Principles	.....3

### Required Phase II Coursework .....10

CAD 117	Introduction to AutoCAD	.....3
CNC 111	Geometric Dimensioning and Tolerancing	.....1
CNC 115	CNC Programming I	.....3
MTT 211	Jig and Fixture Design	.....3

### Required Phase III Coursework .....9

CAD 170	Introduction to SolidWorks <i>or</i>	
CAD 171	Introduction to Inventor <i>or</i>	
CAD 176	Introduction to Creo	.....3
CNC 215	Advanced Mill Programming	.....3
	Technical Elective	.....3

### Required Phase IV Coursework .....15-16

CNC 216	Advanced Lathe Programming	.....3
CNC 217	Introduction to Wire EDM Machining <i>or</i>	
EWE 220	Cooperative Work Experience I	.....3 - 4
CNC 218	Introduction to Master CAM	.....3
CNC 250	Advanced Manufacturing	.....3
	Technical Elective	.....3

### Additional Required Coursework .....6

MTH 117	Technical Mathematics I	.....3
	Social Science Elective*	.....3

### Total Hours for A.A.S. Degree .....64-65

### Technical Electives

Select six hours from the list below. Approval of technical electives must be obtained from the program advisor.

CAD 270	SolidWorks II	.....3
CAD 276	Creo II	.....3
CNC 210	CNC Operations II	.....3
CNC 299	Special Topics: CNC Machining Tech	....1 - 4
LPO 112	Elements of Photonics	.....3
LPO 111	Fundamentals of Light and Lasers	.....4
LPO 113	Photonics-Enabled Technologies	.....3
MET 111	Manufacturing Processes	.....3
MET 112	Basic Metallurgy I	.....3
MET 116	Machine Components and Repair	.....3
MET 118	Machinery's Handbook	.....3
MET 131	Introduction to Robotics	.....3
MET 214	Mechanical Design and Drafting	.....3
MTT 111	Machine Shop I	.....3
MTT 115	Introduction to Die Making	.....3
MTT 116	Introduction to Moldmaking	.....3
MTT 210	Machine Shop II	.....3
MFG 210	Manufacturing Materials	.....3
WLD 170	General Welding	.....3

## CNC Programming/Operations (Certificate) Plan 24NG

This certificate program provides knowledge and skills needed for entry level employment in CNC programming operating. Students will perform operations and programming on FANUC and HAAS CNC controlled machine tools. Advanced placement and NIMS credentialing may be arranged for experienced machinists.

### Phase I .....12

CNC 110	CNC Operations I	.....3
EGR 121	Engineering Graphics	.....3
MTH 115	Applied Mathematics II	.....3
MTT 112	Machining Principles <i>or</i>	
MTT 210	Machine Shop II	.....3

### Phase II .....12

CNC 115	CNC Programming I	.....3
CNC 210	CNC Operations II	.....3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I	.....3
MTT 211	Jig and Fixture Design	.....3

### Phase III .....6

CNC 215	Advanced Mill Programming <i>or</i>	
CNC 216	Advanced Lathe Programming	.....3
CNC 217	Introduction to Wire EDM Machining	.....3

### Total Hours for Certificate .....30

Gainful Employment Information: [www.clcillinois.edu/gecnc](http://www.clcillinois.edu/gecnc)

## Associate in Applied Science and Career Certificates

### NIMS Level 1 CNC Operator/Setup Technician (Certificate) Plan 24NH

This certificate program provides the knowledge, skills, and abilities for entry level employment in the field of Computerized Numerical Control (CNC) machining as a CNC Mill or Lathe Operator and/or Setup technician. Students will learn basic blueprint reading, metal cutting principles and tools, and the operation of modern FANUC and HAAS CNC controlled vertical machining centers and turning centers. Each student will be required to demonstrate competency based on the National Institute for Metalworking Skills (NIMS) nationally validated skill standards. Lecture and lab time will focus on the interpersonal, technical, and employment skills necessary to succeed in the trade. Testing for the following NIMS Level I credentials will be administered during the coursework in which the student will be required to complete a performance test (producing precision parts on the machines) and/or a related theory exam: (1) Measurement, Materials and Safety, (2) Job Planning, Benchwork, and Layout, (3) CNC Milling: Operations, (4) CNC Turning: Operations, (5) CNC Milling: Programming, Setup, and Operations, and (6) CNC Turning: Programming, Setup, and Operations.

<b>Phase I.....</b>	<b>9</b>
CNC 110 CNC Operations I.....	3
MTT 110 Machine Trades Blueprint Reading .....	3
MTT 112 Machining Principles .....	3
<b>Phase II .....</b>	<b>7-10</b>
CNC 115 CNC Programming I .....	3
CNC 210 CNC Operations II .....	3
EWE 220 Cooperative Work Experience I .....	1-4

**Total Hours for Certificate .....16-19**

### NIMS Level 1 CNC Operator (Certificate) Plan 24NJ

This certificate provides the knowledge, skills, and abilities for entry level employment in the field of CNC machining as a CNC Mill or Lathe Operator. Students will learn the operations of a modern FANUC and HAAS CNC controlled vertical machining center and turning center. Each student will be required to demonstrate competency based on the National Institute for Metalworking Skills (NIMS) nationally validated skill standards. Lectures and lab time will focus on the interpersonal, technical, and employment skills necessary to succeed in the trade. Testing for the Level 1 NIMS CNC Mill Operator and Lathe Operator credential will be administered during the coursework in which the student will be required to complete both a performance test (producing precision parts on the machines) and a related theory exam.

CNC 110 CNC Operations I.....	3
MTT 110 Machine Trades Blueprint Reading .....	3
MTT 112 Machining Principles .....	3

**Total Hours for Certificate .....9**

For more information on recommended courses or program specific advising, contact faculty member Jeff Hines or the Engineering, Math and Physical Science division at (847) 543-2044

## Criminal Justice

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### Criminal Justice (Associate in Applied Science) Plan 25CE

This program is designed to prepare students for a variety of careers in the criminal justice system at local, state, and federal levels. Students can specialize in a number of areas including law enforcement, criminal investigation, juvenile justice, court services, and community-based and institutional corrections. All students are urged to consult with a criminal justice faculty advisor in planning their program of study.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

<b>First Semester</b> .....	<b>15</b>
ENG 120 Technical Composition I <i>or</i>	
ENG 121 English Composition I .....	3
Science or Math Elective* .....	3
PSY 121 Introduction to Psychology .....	3
CRJ 121 Introduction to Criminal Justice.....	3
CRJ 122 Introduction to Policing .....	3
<b>Second Semester</b> .....	<b>18</b>
CMM 121 Fundamentals of Speech.....	3
SOC 121 Introduction to Sociology.....	3
PSC 121 American National Politics <i>or</i>	
PSC 122 State and Local Politics .....	3
CRJ 123 Introduction to Criminology.....	3
CRJ 124 Introduction to Corrections .....	3
CRJ 212 Traffic Law Enforcement (elective) <i>or</i>	
CRJ 214 Substance Abuse and Criminal Justice.....	3
<b>Third Semester</b> .....	<b>15</b>
CRJ 221 Criminal Law .....	3
CRJ 219 Principles of Criminal Investigation (elective) .....	3
CRJ 223 Ethics in Criminal Justice.....	3
HUM 127 Critical Thinking <i>or</i>	
ART 149 Digital Photography .....	3
CRJ 213 Community Policing (elective) .....	3
<b>Fourth Semester</b> .....	<b>15</b>
CRJ 229 Juvenile Delinquency .....	3
CRJ 270 Criminal Justice Assessment Seminar .....	3
CRJ 222 Criminal Procedural Law .....	3
CRJ 224 Institutional Corrections (elective) <i>or</i>	
CRJ 227 Community Based Corrections .....	3
CRJ 230 Principles of Courtroom Testimony (elective) <i>or</i>	
CRJ 248 Psychology of the Criminal Mind(elective)...	3
<b>Total Hours for A.A.S. Degree</b> .....	<b>63</b>

### Concentration/Electives

CIT 155	Introduction to Computer Forensics.....	3
CIT 156	Digital Evidence Recovery.....	3
CIT 256	Windows Forensic Analysis .....	3
CRJ 118	Evidence Technology .....	3
CRJ 119	Principles of Direct Supervision .....	3
CRJ 212	Traffic Law Enforcement .....	3
CRJ 213	Community Policing.....	3
CRJ 214	Substance Abuse and Criminal Justice.....	3
CRJ 215	Issues in Criminal Justice.....	3
CRJ 216	Police Management and Supervision .....	3
CRJ 218	Criminal Justice Internship.....	3
CRJ 219	Principles of Criminal Investigation .....	3
CRJ 220	Independent Research.....	3
CRJ 224	Institutional Corrections .....	3
CRJ 227	Community Based Corrections .....	3
CRJ 230	Principles of Courtroom Testimony .....	3
CRJ 248	Psychology of the Criminal Mind (cross-listed as PSY 248) .....	3
EDM	Elective .....	3
EWE 220	Cooperative Work Experience I .....	3
EWE 270	Cooperative Work Experience II .....	3
HUS 132	Trauma, Violence, and Prevention .....	3
HUS 134	Gender-Based Violence .....	3
HUS 140	Drugs and Society .....	3
HUS 234	Child Maltreatment.....	3
PLS 110	Introduction to Paralegal Studies .....	3
SOC 222	Social Problems .....	3
SOC 223	Deviance.....	3
SWK 121	Introduction to Social Work .....	3

### Criminal Justice (Certificate) Plan 25CF

CRJ 121	Introduction to Criminal Justice.....	3
CRJ 123	Introduction to Criminology.....	3
CRJ 221	Criminal Law .....	3
PSY 121	Introduction to Psychology .....	3
SOC 121	Introduction to Sociology.....	3
	Additional CRJ Courses+ .....	15

+Select from all other CRJ courses as well as the CRJ program electives listed above.

**Total Hours for Certificate** .....

Gainful Employment Information: [www.clcillinois.edu/gecrj](http://www.clcillinois.edu/gecrj)

For more information on recommended courses or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047:

Javier Alonso / Jennifer Hulvat / Chris Utecht

## Dance

Communication Arts, Humanities and Fine Arts Division  
Room B213, (847) 543-2040

### Yoga Teacher (Certificate) Plan 23DA

This 14 credit hour certificate program prepares students to teach yoga to adults in yoga studios, health clubs, park districts, or any other venue where a yoga teacher is needed. The CLC Yoga Teacher certificate includes instruction in the technique, pedagogy, history, culture and theory involved in yoga studies and practice. This program is intended to fulfill the requirements of the Yoga Alliance 200-Hour Yoga Teacher Training Registration. Yoga Alliance is the nationally recognized organization that regulates yoga teaching standards. Students who complete their yoga teacher training at CLC may register online with Yoga Alliance. The Yoga Instructor Certificate enables instructors to teach Level I and Level II Hatha Yoga to groups and individuals. A grade of C or better in all courses is required to meet standards.

DNC	124	Beginning Yoga .....	3
DNC	224	Intermediate Yoga.....	3
DNC	160	Teaching Methods I .....	3
DNC	129	Dance Practicum I #.....	1
PED	270	Biomechanics and Kinesiology .....	3
PED	160	Yoga I or	
HWP	160	Yoga I .....	1

# Capstone course - taken in final semester.

**Total Hours for Certificate .....14**

For more information on recommended courses or program specific advising, contact the following faculty or the Communication Arts, Humanities and Fine Arts Division at (847) 543-2040.

Valerie Alpert / Therese Crews

## Dental Hygiene

*See addendum for corrections to this section.*

**Biological and Health Sciences Division, Room B213,  
(847) 543-2042**

### Dental Hygiene (Associate in Applied Science) Plan 21DH

This is a Limited Enrollment program. DHY courses are only offered during the day.

Students are required to meet the screening requirements in effect at the time of screening. Students who screen and are accepted into a limited enrollment program will be required to complete the curriculum that is in place at the time of entrance into the program. If students who screen are not granted admission, they must rescreen and satisfy all screening and curriculum requirements in place for a future program start.

#### Screening Deadline: First Wednesday in February

Dental hygienists are licensed professionals who provide oral health assessment, disease prevention, and health promotion. They are vital members of a dental health team. They serve individuals and families within the community. The Dental Hygiene program at the College of Lake County prepares students to develop the competencies needed to present extensive, preventive oral health care services to the community. The Dental Hygiene program has been granted accreditation status by the American Dental Association.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

The number of students that can be admitted to the Dental Hygiene program is limited; therefore, a screening procedure is used to select the academically best qualified from those who request consideration. Preference will be given to residents of Community College District 532 and community college districts with which CLC has a Joint Educational Agreement. Students who live outside of CLC's district but are eligible for in-district tuition because they are employed by a district employer are NOT considered residents of the district for purposes of selection into the program. Attendance at a Program Information Session is required to apply to the program and to learn other specifics of the application process.

**Students must have submitted the following documents to the Welcome and One-Stop Center:**

- A. Student Information Form
- B. **Official** high school transcript with graduation date OR **Official** GED test scores  
OR  
**Official** college transcripts with graduation date and degree awarded  
OR  
**Official** foreign high school or college transcript evaluated by a NACES approved agency
- C. Dental Hygiene Program Request for Screening Form
- D. If using courses from another college to meet prerequisites or degree requirements, submit an official transcript to the Office of Registrar and Records. It is also highly recommended to submit a "Request for Evaluation of Prior College Transcripts" form.

**Minimum Selection Criteria: Student records must indicate the following:**

- A. College Reading and Writing Readiness and Basic Algebra Readiness
- B. CLC Cumulative GPA is 2.0 or above
- C. BIO 123 or BIO 161 or an equivalent (C or better)
- D. CHM 120 or CHM 121 or an equivalent course (C or better)
- E. BIO 244 or an equivalent course (C or better)
- F. NLN PAX with minimum acceptable RN percentile rank scores of 30 in the verbal, math and science sections, and a composite percentile of 40 (within 3 years prior to the screening deadline)
- G. Must be eighteen (18) years of age by the first day of the summer session following the screening deadline
- H. Attendance at a Dental Hygiene Program Information Session (within 2 years of the screening deadline)

## Associate in Applied Science and Career Certificates

Note: Applicants may take the NLN PAX exam once every 90 days (approximately three months). NLN PAX exam results that are less than 90 days between exams will not be considered. Scores used for screening into the dental hygiene program will be valid for only 3 years prior to a screening deadline. Scores older than 3 years will not be considered for screening. A valid Social Security Number is required to acquire the state license, and may be needed for background checks and/or clinical locations. Visit [www.nlntesting.org](http://www.nlntesting.org) for available test dates and times or visit the Dental Hygiene webpage at [www.clcillinois.edu/programs/dhy](http://www.clcillinois.edu/programs/dhy). Instructions for registering for the test are available on the webpage.

Students who have completed any of the following courses (or an equivalent) must have obtained a grade of “C” or better. These courses are not prerequisites, but program requirements. They may be taken prior to acceptance into the program.

### **BIO 245 Anatomy and Physiology II**

Must be completed before the first fall semester of the program

### **BIO 246 Microbiology**

Must be completed before the first spring semester of the program. If this course is taken during the first fall semester of the program, it must be taken as an evening class.

### **ENG 121 English Composition I**

Must be completed before the first fall semester in the program.

Students who are selected for the program are required to attend a mandatory orientation session. Failure to attend the mandatory orientation session may result in the student losing their seat in the program and the next qualified student on the list will be selected in his/her place.

Note: A student must earn a minimum grade of “C” in each Dental Hygiene course to continue in and graduate from the program. All course prerequisites must be met.

<b>Required General Education Coursework</b> .....	<b>15</b>
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 123 Dynamics of Small Group Discussion <i>or</i>	
CMM 128 Interviewing Practices .....	3
ENG 121 English Composition I .....	3
PSY 121 Introduction to Psychology .....	3
SOC 121 Introduction to Sociology .....	3
Humanities or Fine Arts Elective .....	3
<b>Additional Required Coursework</b> .....	<b>8</b>
BIO 245 Anatomy and Physiology II .....	4
BIO 246 Microbiology .....	4

## **Required Dental Hygiene Coursework** .....56

### **First Semester** .....12

DHY 111 Preclinic Theory and Practice of Dental Hygiene .....	2
DHY 113 Preclinical Dental Hygiene.....	2
DHY 115 Head and Neck Anatomy .....	2
DHY 117 Dental Anatomy .....	2
DHY 131 Oral Histology and Embryology .....	2
DHY 171 Preventive Dental Hygiene.....	2

### **Second Semester** .....13

DHY 112 Theory and Practice of Dental Hygiene I ...	2
DHY 114 Clinical Dental Hygiene I.....	2
DHY 116 Dental Radiology I.....	3
DHY 119 Nutrition and Biochemistry .....	2
DHY 174 Introduction to Periodontics .....	2
DHY 175 Dental Pharmacology and Anesthetics.....	2

### **Summer Session** .....8

DHY 132 Theory and Practice of Dental Hygiene II ....	1
DHY 134 Pain Management.....	2
DHY 176 Dental Materials and Expanded Function.....	3
DHY 179 Clinical Dental Hygiene II .....	2

### **Third Semester**.....14

DHY 211 Theory and Practice of Dental Hygiene III .....	2
DHY 213 Clinical Dental Hygiene III .....	4
DHY 215 Dental Radiology II .....	2
DHY 219 Advanced Periodontics.....	2
DHY 232 General and Oral Pathology .....	2
DHY 271 Community Dentistry I.....	2

### **Fourth Semester**.....9

DHY 212 Theory and Practice of Dental Hygiene IV ..	2
DHY 214 Clinical Dental Hygiene IV .....	4
DHY 216 Ethics and Jurisprudence .....	1
DHY 231 Board Review and Licensure .....	1
DHY 272 Community Dentistry II .....	1

## **Total Hours for A.A.S. Degree** .....79

For more information on recommended courses or program specific advising, contact the following faculty members or the Biological and Health Sciences division at (847) 543-2042:

Kim Aichele / Mary Jacobs / Sue Nierstheimer

## Digital Media and Design

Communication Arts, Humanities and Fine Arts Division  
Room B213, (847) 543-2040

### Digital Media and Design (Associate in Applied Science) Plan 23TB

The Digital Media and Design Associate in Applied Science Degree provides students with the conceptual, critical, creative and technical skills needed to design and produce a variety of commercial, educational and artistic media and design projects. Building on conventional communication formats, Digital Media and Design will explore the realm of new media, creating art and design works such as digital sound and music, still and moving images, 3D models, 2D and 3D animations, Web, video and interactive media. This is a robust curriculum designed to keep up with industry developments and trends.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

#### Required General Education Coursework .....15

ANT 121	Introduction to Anthropology <i>or</i>	
PSY 121	Introduction to Psychology <i>or</i>	
PSY 122	Psychology in Business and Industry.....3	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 122	Business and Professional Speaking <i>or</i>	
CMM 128	Interviewing Practices .....3	
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....3	
MTH 114	Applied Mathematics <i>or</i>	
MTH 117	Technical Mathematics I <i>or</i>	
MTH 122	College Algebra <i>or</i>	
MTH 141	Quantitative Literacy <i>or</i>	
MTH	Elective (higher than MTH 141) .....3	
PHI 122	Logic <i>or</i>	
	Humanities or Fine Arts Elective* (excluding ART courses).....3	

#### Required Digital Media and Design Coursework .....18

ART 122	Two Dimensional Design .....3
ART 149	Digital Photography I .....3
ART 222	Computer Art I .....3
DMD 111	Introduction to Digital Media.....3
DMD 117	Concepts in New Media .....3
	DMD Electives (see below) .....3

#### Required Special Option Coursework (below).....33

Select one Specialty Option (33 hours) from the three options below:

##### Animation Specialty Option

ART 124	Drawing I .....3
ART 225	Figure Drawing.....3
ART 263	2D Computer Animation .....3
ART 264	3D Computer Animation .....3
DMD 157	Introduction to Animation .....3
DMD 173	Introduction to Digital Sound.....3
DMD 216	Interactive Scripting .....3
DMD 233	Video Editing .....3
DMD 251	Advanced 3D Modeling .....3
DMD 253	Advanced 3D Animation .....3
DMD 259	3D Special Effects .....3

##### Graphic Design Specialty Option

ART 111	Printing Production.....3
ART 123	Color and Design Techniques .....3
ART 221	Three Dimensional Design.....3
ART 271	Introduction to Electronic Graphic Publishing .....3
DMD 113	History of Graphic Design .....3
DMD 115	Internet Fundamentals .....3
DMD 116	Web Design and Development.....3
DMD 174	Typography.....3
DMD 273	Advanced Electronic Graphic Publishing .....3
DMD 279	Packaging Design .....3
ENG 113	Technical Communication Practicum <i>or</i>
ENG 266	Professional Communication <i>or</i>
EWE 220	Cooperative Work Experience I .....3

##### Web Development and Interactive Design Specialty Option

ART 111	Printing Production.....3
DMD 113	History of Graphic Design .....3
DMD 115	Internet Fundamentals .....3
DMD 116	Web Design and Development.....3
DMD 157	Introduction to Animation .....3
DMD 216	Interactive Scripting <i>or</i>
CIT 171	Web Page Scripting .....3
DMD 218	Advanced Web Design and Development ....3
DMD 256	Dynamic Web Design and Development .....3
DMD 257	Interactive Animation .....3
ENG 113	Technical Communication Practicum <i>or</i>
ENG 266	Professional Communication <i>or</i>
EWE 220	Cooperative Work Experience I .....3
	Elective (ART, CAD, CIT, or DMD from Animation, video, audio, game, Photography, CAD, database, networking, etc.).....3

#### Total hours for A.A.S. degree .....66

## Associate in Applied Science and Career Certificates

### DMD Electives

Select 3 hours from the list below:

BUS	121	Introduction to Business.....	3
BUS	219	Small Business Management .....	3
BUS	290	Business Plan Development .....	3
ENG	126	Advanced Composition: Scientific Technical Communication.....	3
ENG	220	Introduction to Scriptwriting for Video, TV and Film .....	3
DNC		Elective .....	3
HUM	123	Introduction to Film .....	3
HUM	222	Film and Society.....	3
MUS		Elective .....	3

### Digital A/V Production and Editing (Associate in Applied Science) Plan 23TM

The Digital Media and Design Associate in Applied Science Degree in Digital A/V Production and Editing provides you with the conceptual, critical, creative and technical skills you'll need to create and produce a variety of commercial, educational and artistic audio and video projects. Building on conventional audio and video communication formats, Digital A/V Production and Editing will explore the realm of new media, creating art and design works including digital sound and music, still and moving images, compositing, special effects, 2D and 3D animations, Web, video and interactive media. We have created a robust curriculum that will keep up with industry developments and trends.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

### Required General Education Coursework .....15

ANT	121	Introduction to Anthropology <i>or</i>	
PSY	121	Introduction to Psychology <i>or</i>	
PSY	122	Psychology in Business and Industry.....	3
CMM	121	Fundamentals of Speech <i>or</i>	
CMM	122	Business and Professional Speaking <i>or</i>	
CMM	128	Interviewing Practices .....	3
ENG	120	Technical Composition I <i>or</i>	
ENG	121	English Composition I .....	3
MTH	114	Applied Mathematics <i>or</i>	
MTH	117	Technical Mathematics I <i>or</i>	
MTH	122	College Algebra <i>or</i>	
MTH	141	Quantitative Literacy <i>or</i>	
MTH		Elective (higher than MTH 141) .....	3
PHI	122	Logic <i>or</i>	
		Humanities or Fine Arts Elective (excluding ART courses)*.....	3

### Required Digital A/V Production and Editing

<b>Coursework</b> .....	<b>45</b>		
ART	111	Printing Production.....	3
ART	122	Two Dimensional Design .....	3
ART	149	Digital Photography I.....	3
ART	222	Computer Art I .....	3
ART	272	Introduction to Video Production.....	3
ART	274	Video Production II .....	3
ART	280	Audio Production .....	3
DMD	111	Introduction to Digital Media.....	3
DMD	115	Internet Fundamentals .....	3
DMD	116	Web Design and Development.....	3
DMD	117	Concepts in New Media <i>or</i>	
ENG	126	Advanced Composition: Scientific Technical Communications .....	3
DMD	173	Introduction to Digital Sound.....	3
DMD	233	Digital Video Editing .....	3
DMD	277	Digital Media Delivery.....	3
		Digital A/V Prod Elective (see below).....	3

### Additional Required Coursework .....3

Select three hours from the list below:

BUS	121	Introduction to Business.....	3
BUS	219	Small Business Management .....	3
BUS	290	Business Plan Development .....	3
DNC		Elective .....	3
ENG	220	Introduction to Scriptwriting for Video, TV, and Film .....	3
HUM	123	Introduction to Film .....	3
HUM	222	Film and Society.....	3
MUS		Elective .....	3

### Total Hours for A.A.S. Degree .....63

### Digital A/V Production and Editing Electives

Select three hours from the list below:

ART	129	Photography I .....	3
ART	249	Digital Photography II .....	3
DMD	157	Introduction to Animation .....	3
DMD	257	Interactive Animation .....	3

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**Multimedia Presentations**  
(Certificate) Plan 23TE

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AOS	215	Presentation Software.....	3
ART	272	Introduction to Video Production.....	3
DMD	111	Introduction to Digital Media.....	3
DMD	173	Introduction to Digital Sound.....	3
DMD	277	Digital Media Delivery.....	3

**Total Hours for Certificate .....15**

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**Multimedia Communications**  
(Certificate) Plan 23TH

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ART	111	Printing Production.....	3
ART	122	Two Dimensional Design.....	3
ART	222	Computer Art I.....	3
CMM	121	Fundamentals of Speech <i>or</i>	
CMM	122	Business and Professional Speaking.....	3
DMD	111	Introduction to Digital Media.....	3
DMD	116	Web Design and Development.....	3
DMD	216	Interactive Scripting.....	3
ENG	113	Technical Communication Practicum.....	3
ENG	120	Technical Composition I <i>or</i>	
ENG	121	English Composition I.....	3
ENG	126	Advanced Composition: Scientific and Technical Communication.....	3
ENG	266	Professional Communication.....	3
		Any other DMD course not included in this certificate.....	3

**Total Hours for Certificate .....36**

Gainful Employment Information: [www.clcillinois.edu/gedmd](http://www.clcillinois.edu/gedmd)

For more information on recommended courses or program specific advising, contact the following faculty members or the Communication Art, Humanities and Fine Arts division at (847) 543-2040:

Michael Kozien / Yang Xiang

## Early Childhood Education

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### Early Childhood Education (Associate in Applied Science) Plan 25EA

The Associate of Applied Science Degree program in Early Childhood Education prepares students for careers working with young children. Graduates of the program are DCFS-qualified to be lead teachers and directors in early childhood centers and school-age programs. Public school Pre-K programs may employ A.A.S. degree graduates as assistant teachers. Many of the required courses may transfer to four-year institutions with related programs. To complete an A.A.S., students must meet the General Requirements on page 114. In addition, students should select the General Education electives from the requirements listed on page 114. All course prerequisites must be met. ECE 121, ECE 124, ECE 214, ECE 220, ECE 250, ECE 252 and EDU 242 require daytime field observation or classroom experience hours, a current Illinois State Police criminal background check and/or current medical documentation. Check individual catalog course descriptions and catalog information or contact the Early Childhood Education Department Chair for further guidance. After completion of this A.A.S. degree program, interested students will need to complete applications for the Illinois Gateways to Opportunity to qualify and receive the Level 4 Infant/Toddler Credential and the Level 4 ECE Credential. See Department Chair for more information.

#### First Semester .....15

ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....	3
PSY 121	Introduction to Psychology .....	3
ECE 116	Creative Activities .....	3
+ ECE 121	Introduction to Early Childhood Education .....	3
+ ECE 124	Child Development for Educators .....	3

#### Second Semester .....15

CMM 121	Fundamentals of Speech .....	3
	Humanities or Fine Arts Elective .....	3
BIO 140	Environmental Biology Without Lab <i>or</i>	
BIO 149	Genetics and Society <i>or</i>	
CHM 140	Chemistry For a Changing World <i>or</i>	
ESC 123	Introduction to Meteorology <i>or</i>	
ESC 124	Oceanography <i>or</i>	
ESC 141	Introduction to Astronomy <i>or</i>	
ESC 224	Environmental Geology <i>or</i>	
GEG 121	Physical Geography .....	3
ECE 117	Creative Activities for Infants and Toddlers .....	3
ECE 141	Health, Safety, and Nutrition .....	3

#### Third Semester.....15

+ ECE 214	Group Care of Infants and Toddlers.....	3
ECE 223	Child, Family, and Community .....	3
ECE 229	Language Development and Early Literacy .....	3
ECE 241	Guidance and Social Development .....	3
ECE	Electives .....	3

#### Fourth Semester.....15

ECE 215	Music Activities for Young Children .....	3
+ ECE 220	Observation and Assessment .....	3
ECE 233	Young Children with Special Needs .....	3
ECE 242	Math Activities for Young Children.....	3
ECE	Electives .....	3

#### Early Childhood Education Electives - 6 Hours

Select 6 - 8 hours from the following. Students wishing to apply for the Illinois Gateways to Opportunity Level 4 Infant-Toddler and ECE entitled credentials must choose ECE 250, ECE 251, ECE 252, and ECE 253 as electives. In this situation, the student will complete this degree with 62 credit hours.

ECE 132	Professional Ethics in ECE .....	1
ECE 133	Family Child Care Management .....	3
ECE 231	School-Age Programming .....	3
ECE 250	ECE Practicum I - Infants and Toddlers* <i>and</i>	
ECE 251	Curriculum Development I* .....	2
ECE 252	ECE Practicum II - Preschool* <i>and</i>	
ECE 253	Curriculum Development II* .....	2
ECE 270	Administration of ECE Programs .....	3
ECE 299	Special Topics in Early Childhood Education .....	1-3
EDU 222	The Exceptional Child .....	3
EDU 223	Technology in the Classroom.....	3
EDU 224	Diversity in Schools and Society .....	3
EDU 225	Educational Psychology .....	3
EDU 242	Observation/Clinical Experience .....	1
EDU 299	Special Topics in Education .....	1-3

#### Total A.A.S. Degree.....60

For students wishing to obtain a teaching credential in the State of Illinois, a grade of C or above is compulsory for all coursework required for the teaching credential. This includes courses in the major, all education courses, and required general electives. This is effective for those applying for teacher certification as of 2012 (Illinois State Board of Education).

\*A.A.S. in ECE students who desire to earn the Illinois Gateways to Opportunity ECE Credential—Level 4 and the Illinois Gateways to Opportunity Infant/Toddler Credential—Level 4 must complete these four courses as electives or be able to document relevant work experience. Upon successful completion of this program, students may complete an application with INCCRRA/Gateways to Opportunity to receive these credentials. See Department Chair for more details.

ECE 250 and ECE 252 each require 150 hours of classroom work in a NAEYC accredited early childhood center. These courses also require all course prerequisites (see course descriptions in catalog), as well as a current criminal clearance and DCFS mandated medical requirements. Completion of two practicums and relevant curriculum courses will require an additional semester to complete.

ECE 251 and ECE 253 must be taken concurrently (in an online format) with the coordinating practicum course.

Illinois Gateways to Opportunity awards entitlement status to higher education institutions that align their coursework with credential requirements. Students who complete the required courses may meet Gateways credential component requirements, and have up to two years to apply to receive their credential(s). Visit [www.ilgateways.com/en/gateways-to-opportunity-credentials](http://www.ilgateways.com/en/gateways-to-opportunity-credentials).

+ ECE 121, ECE 124, ECE 214, ECE 220, ECE 250, ECE 252, EDU 124 and EDU 242 may require daytime field observation and/or experience hours, current Illinois State Police criminal background check, and/or current medical documentation. Check individual catalog descriptions for more information or contact the ECE Department Chair.

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**Administration and Leadership in Early Childhood Education  
(Certificate) Plan 25EF**

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This certificate is intended for students who already hold degrees or who have taken extensive coursework in other academic fields and have several years experience in early childhood classroom teaching. The program provides the additional study that is often required for a career change, to meet requirements for Illinois Department of Children and Family Services (IDCFS) Director Qualifications, National Association for the Education of Young Children (NAEYC) program accreditation criteria, and/or to build skills in early childhood program administration and leadership.

**Required Early Childhood Education Coursework.....24**

+ ECE	121	Intro to Early Childhood Education .....	3
+ ECE	124	Child Development for Educators .....	3
ECE	132	Professional Ethics in ECE .....	1
ECE	141	Health, Safety, and Nutrition .....	3
ECE	223	Child, Family, and Community .....	3
ECE	254	ECE Administrative Practicum * <b>or</b> Four credits of approved elective coursework .....	4
ECE	270	Administration of ECE Programs .....	3
EDU	223	Technology in the Classroom.....	3
HCM	113	ServSafe Food Service Sanitation .....	1

**Required Business Coursework .....6**

BUS	115	Elements of Supervision .....	3
BUS	122	Principles of Marketing .....	3

**Required Communication Coursework.....6**

CMM	127	Intercultural Communication .....	3
CMM	128	Interviewing Practices .....	3

\*See Department Chair for details and application for Illinois Gateways Level 1 Director Credential.

**Total Hours for Certificate .....36**

Gainful Employment Information: [www.clcillinois.edu/geece](http://www.clcillinois.edu/geece)

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**Infant/Toddler Level II - Illinois Gateways To Opportunity Credential  
(Certificate) Plan 25EG**

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Illinois Gateways to Opportunity Infant/Toddler Credentials Levels 2–4 are for child care professionals working with children birth to age 8 who have specific levels of training, education and experience. An Entitled Institution is a college or university who has aligned their coursework with credential requirements. The College of Lake County’s Early Childhood Education Department has Entitled Institution status to award Levels II through IV credentials to students who have completed the required courses for each type and level of credential. The following courses are required to obtain and be awarded the Level II Infant/Toddler Illinois Gateways to Opportunity Credential.

**NOTE: It is not necessary to earn the Level I Gateways Credential before pursuing the Levels II and III Credentials and Certificates, BUT YOU MUST EARN THE LEVEL II ECE CERTIFICATE/CREDENTIAL (PLAN 25EI) BEFORE YOU EARN THE LEVEL II INFANT/TODDLER CERTIFICATE (PLAN 25EG). (There is a two-course difference.)**

**Certificate Requirements:**

ECE	117	Creative Activities for Infants and Toddlers .....	3
ECE	121	Introduction to Early Childhood Education .....	3
ECE	124	Child Development for Educators .....	3
ECE	141	Health, Safety, and Nutrition .....	3
ECE	214	Group Care of Infants and Toddlers.....	3
ECE	223	Child, Family, and Community .....	3

**Total Hours for Certificate .....18**

Gainful Employment Information: [www.clcillinois.edu/geece](http://www.clcillinois.edu/geece)

## Associate in Applied Science and Career Certificates

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### Infant/Toddler Level III - Illinois Gateways To Opportunity Credential (Certificate) Plan 25EH

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Illinois Gateways to Opportunity Infant/Toddler Credentials Levels 2–4 are for child care professionals working with children birth to age 8 who have specific levels of training, education and experience. An Entitled Institution is a college or university who has aligned their coursework with credential requirements. The College of Lake County's Early Childhood Education Department has Entitled Institution status to award Levels II through IV credentials to students who have completed the required courses for each type and level of credential. The following courses are required to obtain and be awarded the Level III Infant/Toddler Illinois Gateways to Opportunity Credential.

#### Certificate Requirements:

ECE	117	Creative Activities for Infants and Toddlers .....	3
ECE	121	Introduction to Early Childhood Education .....	3
ECE	124	Child Development for Educators .....	3
ECE	141	Health, Safety, and Nutrition .....	3
ECE	214	Group Care of Infants and Toddlers.....	3
ECE	220	Observation and Assessment .....	3
ECE	223	Child, Family, and Community .....	3
ECE	242	Math Activities for Young Children.....	3
ENG	120	Technical Composition I <i>or</i>	
ENG	121	English Composition I .....	3
CMM	121	Fundamentals of Speech <i>or</i>	
PSY	121	Introduction to Psychology .....	3

**Total Hours for Certificate .....30**

Gainful Employment Information: [www.clcillinois.edu/geece](http://www.clcillinois.edu/geece)

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### Early Childhood - Level II - Gateways To Opportunity Credential (Certificate) Plan 25EI

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Illinois Gateways to Opportunity Early Childhood Credentials Levels 2–4 are for child care professionals working with children birth to age 8 who have specific levels of training, education and experience. An Entitled Institution is a college or university who has aligned their coursework with credential requirements. The College of Lake County's Early Childhood Education Department has Entitled Institution status to award Levels II through IV credentials to students who have completed the required courses for each type and level of credential. The following courses are required to obtain and be awarded the Level II Early Childhood Illinois Gateways to Opportunity Credential.

**NOTE: It is not necessary to earn the Level I Gateways Credential before pursuing the Levels II and III Credentials and Certificates, BUT YOU MUST EARN THE LEVEL II ECE CERTIFICATE/CREDENTIAL (PLAN 25EI) BEFORE YOU EARN THE LEVEL II INFANT/TODDLER CERTIFICATE (PLAN 25EG). (There is a two-course difference.)**

#### Certificate Requirements:

ECE	116	Creative Activities .....	3
ECE	121	Introduction to Early Childhood Education .....	3
ECE	124	Child Development for Educators .....	3
ECE	141	Health, Safety, and Nutrition .....	3
ECE	220	Observation and Assessment .....	3
ECE	223	Child, Family, and Community .....	3

**Total Hours for Certificate .....18**

Gainful Employment Information: [www.clcillinois.edu/geece](http://www.clcillinois.edu/geece)

**Early Childhood - Level III - Gateways To Opportunity Credential (Certificate) Plan 25EJ**

Illinois Gateways to Opportunity Early Childhood Credentials Levels 2-4 are for child care professionals working with children birth to age 8 who have specific levels of training, education and experience. An Entitled Institution is a college or university who has aligned their coursework with credential requirements. The College of Lake County's Early Childhood Education Department has Entitled Institution status to award Levels II through IV credentials to students who have completed the required courses for each type and level of credential. The following courses are required to obtain and be awarded the Level III Early Childhood Illinois Gateways to Opportunity Credential.

**Certificate Requirements:**

ECE 116	Creative Activities .....	3
ECE 121	Introduction to Early Childhood Education .....	3
ECE 124	Child Development for Educators .....	3
ECE 141	Health, Safety, and Nutrition .....	3
ECE 220	Observation and Assessment .....	3
ECE 223	Child, Family, and Community .....	3
ECE 241	Guidance and Social Development .....	3
ECE 242	Math Activities for Young Children .....	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....	3
CMM 121	Fundamentals of Speech <i>or</i>	
PSY 121	Introduction to Psychology .....	3

**Total Hours for Certificate .....30**

Gainful Employment Information: [www.clcillinois.edu/geece](http://www.clcillinois.edu/geece)

For more information on recommended courses or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047.

Kathleen Johnston / Diane Wolter

**ECE Course Rotation Guide**

Fall	Spring	Summer *
ECE 116	ECE 117	ECE 116 or ECE 117
ECE 121	ECE 121	ECE 121
ECE 124	ECE 124	ECE 124
ECE 133*	ECE 141	ECE 132*
ECE 214	ECE 215	ECE 141
ECE 223	ECE 220	ECE 233 or ECE 241
ECE 229	ECE 229	
ECE 241	ECE 231*	
	ECE 233*	
	ECE 242	
ECE 250, 251, 252, 253, 254	ECE 250, 251, 252, 253, 254	
Practicum Courses (Require approval from Department Chair)	Practicum Courses (Require approval from Department Chair)	<b>* Varies</b> (Check schedule or contact ECE Department Chair)
	ECE 270	

## Electrician Apprenticeship

Engineering, Math and Physical Sciences Division  
Room T302, (847) 543-2044

### Electrician Apprenticeship (Associate in Applied Science) Plan 24EG

This program has been established in partnership with the International Brotherhood of Electrical Workers (IBEW), Local 150. Students must be accepted into the IBEW apprenticeship program prior to enrollment in the program.

Courses noted with a plus sign (+) are taken at CLC. All other courses are taken at the IBEW Local 150 classrooms.

#### Year One .....15

##### First Semester

EET	170	DC Circuit Fundamentals.....	2
EMF	111	Electronics Mathematics I .....	2
EMF	112	Electronics Mathematics II.....	2
ISE	114	National Electrical Code .....	2
EAP	111	Electrician Apprenticeship Work Experience I.....	2

##### Second Semester

ELT	111	Electronic Drafting .....	2
ELC	113	Basic Instrumentation and Shop Practice.....	3
EAP	111	Electrician Apprenticeship Work Experience II .....	0
			(Continued from 1st semester)

#### Year Two .....13

##### First Semester

CMT	112	Construction Blueprint Reading.....	3
ELC	172	Applied AC Circuit Theory .....	2
EAP	112	Electrician Apprenticeship Work Experience II .....	2

##### Second Semester

+	ENG	120	Technical Composition I <i>or</i>	
+	ENG	121	English Composition I .....	3
	ISE	118	Power Distribution .....	3
	EAP	112	Electrician Apprenticeship Work Experience II .....	0
			(Continued from 1st semester)	

#### Year Three .....15

##### First Semester

+	CMM	111	Communication Skills <i>or</i>	
+	CMM	121	Fundamentals of Speech.....	3
	ELT	173	Applied Analog Circuits.....	3
	EAP	113	Electrician Apprenticeship Work Experience III .....	2

##### Second Semester

CMT	118	Mechanical and Electrical Equipment .....	3
ELC	114	Motor and Machine Controls .....	3
ELC	276	Electrical Industrial Safety .....	1
EAP	113	Electrician Apprenticeship Work Experience III .....	0
			(Continued from 1st semester)

#### Year Four .....14

##### First Semester

ELC	171	Programmable Logic Controllers .....	3
EET	230	Electrical Machines .....	3
EAP	114	Electrician Apprenticeship Work Experience IV .....	2

##### Second Semester

ELT	117	Industrial Digital Electronics I.....	3	
+	HST	222	US History 1876 to Present <i>or</i>	
+	HST	225	American Labor History.....	3
EAP	114	Electrician Apprenticeship Work Experience IV .....	0	
			(Continued from 1st semester)	

#### Year Five .....11

##### First Semester

+	ARC	228	History of Architecture.....	3
+	CAD	110	CAD/CAM Concepts <i>or</i>	
+	CAD	117	Introduction to AutoCAD.....	3
EAP	115	Electrician Apprenticeship Work Experience V .....	2	

##### Second Semester

ELT	171	Industrial Control Systems .....	3
EAP	115	Electrician Apprenticeship Work Experience V .....	0
			(Continued from 1st semester)

#### Total Hours for A.A.S. Degree .....68

For more information on recommended courses or program specific advising, contact faculty member Michelle Leonard or the Engineering, Math and Physical Sciences division at (847) 543-2044.

# Electrical Engineering Technology

Engineering, Math and Physical Sciences Division  
Room T302, (847) 543-2044

## Electrical Engineering Technology (Associate in Applied Science) Plan 24ED

Students are prepared to work in electrical or electronic research, electronic layout, instrumentation, design, field service, communication and service laboratories, as an electrical or electronics engineering technician, installer and repairer, or maintenance. The degree also prepares students for telecommunications, biomedical, broadcast and sound engineering, and sustainable energies, such as solar, wind and geothermal.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

<b>First Semester</b> .....	<b>14-16</b>
EET 170 DC Circuit Fundamentals .....	2
EET 115 Electronic Laboratory Techniques.....	2
EET 174 AC Fundamentals .....	2
EET 173 DC Analysis-Network Theorems .....	2
MTH 123 Trigonometry <i>or</i>	
MTH 144 Precalculus .....	3-5
ENG 120 Technical Composition I .....	3
<b>Second Semester</b> .....	<b>17</b>
EET 175 AC Analysis and Circuit Theorems .....	2
EET 223 Introduction to Digital Electronics .....	4
CMM 121 Fundamentals of Speech .....	3
PHY 121 General Physics I.....	5
SOC 121 Introduction to Sociology .....	3
<b>Third Semester</b> .....	<b>18</b>
EET 113 Solid State Electronics.....	4
EET 230 Electrical Machinery .....	3
MTH 145 Calculus and Analytic Geometry I .....	5
PHI 122 Logic .....	3
PSY 122 Industrial/Organizational Psychology .....	3
<b>Fourth Semester</b> .....	<b>17-19</b>
EET 211 Advanced Solid State Electronics .....	4
EET 216 Microprocessors I .....	4
ECO 221 Principles of Macroeconomics <i>or</i>	
ECO 222 Principles of Microeconomics.....	3
Approved Technical Electives .....	6-8

### Technical Electives 6-8 hours

MTH 146	Calculus and Analytic Geometry II .....	4
EET 212	Electronic Communications Systems .....	3
EET 130	Introduction to Renewable Energy Sources .....	4
EIT 210	Data and Network Communication.....	4
ELC 171	Programmable Logic Controllers .....	3
ELC 271	Advanced Programmable Controls .....	3
MTH 122	College Algebra.....	4
	Departmentally Approved Elective .....	3-5

**Total Hours for A.A.S. Degree** .....**66-70**

## Electronics Technology (Certificate) Plan 24EF

This program provides students with the basic background and skills necessary to work with both analog and digital electronics. A minimum of 35 semester hours credit must be completed for the certificate. Courses not listed here may be taken with division approval.

<b>Core Courses</b> .....	<b>10</b>
EET 170 DC Circuit Fundamentals .....	2
EET 174 AC Fundamentals .....	2
EET 115 Electronic Laboratory Techniques.....	2
EET 223 Introduction to Digital Electronics .....	4
<b>Additional Required Coursework</b> .....	<b>25</b>
Choose at least 25 credit hours from the following list.	
EET 173 DC Analysis-Network Theorems .....	2
EET 175 AC Analysis and Circuit Theorems.....	2
EET 216 Microprocessors I .....	4
EET 113 Solid State Electronics.....	4
EET 211 Advanced Solid State Electronics .....	4
MTH 122 College Algebra <i>or</i>	
MTH 144 Precalculus .....	4-5
EET 212 Electronic Communications Systems .....	3
EET 130 Introduction to Renewable Energy Sources ..	4
EET 299 Special Topics: Electrical/Electronics .....	1-4
CAD 117 Introduction to AutoCAD .....	3
MCS 141 Computer Science I .....	4
PHY 120 Practical Aspects of Physics <i>or</i>	
PHY 121 General Physics I .....	4-5

**Total Hours for Certificate** .....**35**

Gainful Employment Information: [www.clcillinois.edu/geeet](http://www.clcillinois.edu/geeet)

## Associate in Applied Science and Career Certificates

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### Electrical/Electronic Maintenance (Certificate) Plan 24EH

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This certificate is intended to provide students with the skills necessary to perform electrical and electronic installation, trouble-shooting and maintenance procedures in industry, including practical experience with circuitry, motors and motor controls and programmable logic controllers.

<b>Required Coursework</b> .....	<b>24</b>
EET 115 Electronic Laboratory Techniques .....	2
EET 170 DC Circuit Fundamentals .....	2
EET 230 Electrical Machinery .....	3
ELC 114 Motor and Machine Controls .....	3
ELC 171 Programmable Logic Controllers .....	3
ELC 172 Applied AC Circuit Theory .....	2
ELC 271 Advanced Programmable Controls .....	3
ENG 120 Technical Composition I <i>or</i>	
ENG 121 English Composition I .....	3
MTH 117 Technical Mathematics I .....	3

#### Technical Electives 6-8 hours

EET 130 Introduction to Renewable Energy Sources ..	4
EET 223 Introduction to Digital Electronics .....	4
EET 299 Special Topics: Electrical/Electronics .....	1-4
EIT 116 Fiber Optic Fundamentals .....	3
EIT 210 Data and Network Communication .....	4
ELT 151 PC Hardware Fundamentals .....	3
ISE 114 National Electrical Code .....	2
MET 131 Introduction to Robotics .....	3

**Total Hours for Certificate** .....**30-32**

Gainful Employment Information: [www.clcillinois.edu/geeet](http://www.clcillinois.edu/geeet)

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### Fiber Optics Technician (Certificate) Plan 24EV

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This certificate program is designed to provide students the hands-on experience and knowledge needed to prepare for industry certification in fiber optics technology and to find entry level employment in network technology and telecommunications.

Additionally, this certificate may be used to broaden the experiences of skilled network and systems administrators to include fiber optic analysis, installation and testing.

EIT 111 Digital and Network Fundamentals .....	4
EIT 116 Fiber Optic Fundamentals .....	3

**Total Hours for Certificate** .....**7**

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### Wireless Networking Security (Certificate) Plan 24EU

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This certificate provides the hands-on and theoretical experiences a network administrator needs to be able to design, test and maintain secure wireless and mixed media networks. This program also prepares students to pursue certifications in the field of wireless networking.

EIT 111 Digital and Network Fundamentals .....	4
EIT 210 Data and Network Communication .....	4
EIT 230 Secure Wireless Networking .....	3
EIT 250 Wireless Data Communications .....	3

**Total Hours for Certificate** .....**14**

For more information on recommended courses or program specific advising, contact faculty member Michelle Leonard or the Engineering, Math and Physical Science division at (847) 543-2044.

## Emergency Medical Technology

Biological and Health Sciences Division, Room B213,  
(847) 543-2042

### Emergency Medical Technology (Associate in Applied Science) Plan 21EA

This degree provides students with the knowledge and skills needed to gain employment as an emergency medical technician. Graduates of this program will be provided with a high degree of specialized emergency medical training and courses of general education designed to provide breadth of knowledge in a variety of fields, specific scientific knowledge, and additional communication skills.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

#### Required General Education Coursework .....15

CMM	Elective (see page 122 for selections) .....3
ENG 120	Technical Composition I <i>or</i>
ENG 121	English Composition I .....3
MTH 114	Applied Mathematics I <i>or</i>
MTH	Elective (higher than MTH 114) .....3
	Humanities or Fine Arts Elective* .....3
	(HUM 127, PHI 122 or PHI 125
	recommended)
PSY 121	Introduction to Psychology <i>or</i>
	Social Science Elective* .....3

#### Required Emergency Medical Technology Coursework ..33

EMT 111	Emergency Medical Technician-Basic .....7
EMT 114	Paramedic Clinical Practicum .....3
EMT 115	Paramedic Field Experience Practicum .....3
EMT 131	Introduction to Advanced
	Pre-hospital Care .....4
EMT 132	Patient Assessment .....2
EMT 133	Medical Emergencies .....5
EMT 134	Trauma Emergencies .....3
EMT 135	Special Considerations and Operations .....6

#### Additional Required Coursework.....14-18

BIO 111	Human Form and Function <i>or</i>
BIO 244	Anatomy and Physiology I <i>and</i>
BIO 245	Anatomy and Physiology II .....4-8
HIT 111	Medical Terminology .....3
HIT 119	Pharmacology .....1
	Electives .....6

#### Total Hours for A.A.S. Degree .....62-66

### Emergency Medical Technician - Basic (Certificate) Plan 21EM

Emergency medical technicians provide emergency medical care for illness and injury at the site and enroute to the hospital. They provide pre-hospital and inter-hospital emergency medical services and medical transport services at the basic life support level. Graduates are employed primarily by ambulance services, and by fire and rescue departments. Graduates will understand the emergency services system, the responsibilities of emergency services personnel, as well as assessment, stabilization, and initial pre-hospital medical treatment of injured and ill patients. Completion of this certificate prepares students to take the licensing examination to become an EMT-B (Emergency Medical Technician-Basic). Courses are offered at associated hospitals and fire/rescue departments in Lake County. Day and evening classes are available.

EMT 111 Emergency Medical Technician – Basic .....7

#### Total Hours for Certificate .....7

### Emergency Medical Technician - Paramedic (Certificate) Plan 21EP

Paramedics provide emergency medical care for illness and injury at site and enroute to the hospital. Paramedics are trained to provide pre-hospital and inter-hospital emergency medical services and medical transport services at the advanced life support level, including administration of intravenous lines, intubation, and defibrillation. Paramedics are employed primarily by fire and rescue departments and by ambulance services. Students entering this program already must have earned the EMT-B or EMT-I license. Completion of this certificate prepares students to take the licensing examination to become an EMT-P (Emergency Medical Technician-Paramedic). Courses are offered at associated hospitals in Lake County. Day and evening classes are available.

## Associate in Applied Science and Career Certificates

BIO	111	Human Form and Function <i>or</i>	
+ BIO	244	Anatomy and Physiology I <i>and</i>	
+ BIO	245	Anatomy and Physiology II .....	4-8
EMT	114	EMT Paramedic – Clinical Practicum .....	3
EMT	115	EMT Paramedic – Field Experience Practicum .....	3
EMT	131	Introduction to Advanced Pre-hospital Care .....	4
EMT	132	Patient Assessment .....	2
EMT	133	Medical Emergencies .....	5
EMT	134	Trauma Emergencies .....	3
EMT	135	Special Considerations and Operations .....	6

**Total Hours for Certificate .....**30-34

+ If BIO 124 has been taken, BIO 244 and BIO 245 are not needed. BIO 124 was last offered Summer 2009.

NOTE: All EMT classes are held at area hospitals or fire and rescue departments. Registration for classes, except EMT111-300, is processed directly through the individual site hosting the class. Space is limited and classes fill up quickly. For more information, please contact one of the EMS coordinators listed below:

For more information on recommended courses or program specific advising, contact the following individuals or the Biological and Health Science division at (847) 543-2042:

### Vista Medical Center West

EMT-Basic (847) 360-2038  
EMT-Paramedic Dave Chase (847) 360-2205

### Advocate Condell Medical Center

EMT-Paramedic (847) 990-5309

### NorthShore University HealthSystem/ Highland Park Hospital

EMT-Basic and Martha Pettineo (847) 480-3787  
EMT Paramedic

### Important Financial Aid Information

EMT A.A.S. as well as EMT-Basic and EMT-Paramedic certificate programs are *not eligible* for Title IV aid. Only students who are eligible for benefits under the Illinois Veteran's grant, Illinois National Guard, or MIA/POW or VA Federal Benefits may receive financial aid for these programs.

## Fire Science Technology

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### Fire Science Technology (Associate in Applied Science) Plan 25FB

The Fire Science Technology Associate in Applied Science degree is designed to serve the needs of students in the Fire Service and to prepare others to enter the Fire Service.

Many of the Fire Science courses are recognized by the Office of the State Fire Marshall (OSFM) and students that are members of an Illinois fire department may challenge the OSFM exam upon completion of the course. Students not members of an Illinois fire department may challenge the OSFM end-of-course examination upon becoming a member of a recognized fire department in Illinois.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

<b>First Semester</b>	<b>.....15</b>
ENG 120	Technical Composition I <i>or</i>
ENG 121	English Composition I .....3
PSY 121	Introduction to Psychology .....3
MTH 114	Applied Mathematics I <i>or</i> higher numbered mathematics course.....3
CIT 119	Introduction to Office Software <i>or</i>
CIT 120	Introduction to Computers .....3
FST 111	Introduction to Fire Service .....3
<b>Second Semester</b>	<b>.....16</b>
CMM 121	Fundamentals of Speech <i>or</i>
CMM 128	Interviewing Practices .....3
PHY 120	Practical Aspects of Physics.....4
FST 116	Fire Fighting Tactics and Strategy I.....3
FST 173	Fire Instructor I.....3
	Concentration/Elective # .....3
<b>Third Semester</b>	<b>.....18</b>
PSC 122	State and Local Politics .....3
	Humanities or Fine Arts Elective* (with I/M designation, if needed) .....3
FST 177	Fire Prevention Principles I .....3
FST 217	Fire Officer Communications.....3
FST 218	Fire Officer Supervision.....3
	Concentration/Elective # .....3

<b>Fourth Semester</b>	<b>.....15</b>
	Concentration/Elective # .....3

**Total Hours for A.A.S. Degree .....64**

# A minimum of 21 credit hours of Concentration/Electives are required to fulfill this requirement.

### Fire Science Electives

Select 21 hours from the list below:

FST 117	Fire Fighting Tactics Stra II .....3
FST 118	Incident Command .....3
FST 174	Fire Instructor II .....3
FST 273	Fire Science Business and Operations .....3
FST 274	Fire Administration and the Law .....3
FST 279	Special Topics Fire Service .....3
EDM 212	Terrorism and Homeland Security .....3

A maximum of 7 hours may be selected from the following list towards FST Electives:

EDM 111	Intro to Emergency Management.....3
EMT 111	Emergency Medical Tech-Basic.....7

### Firefighter Basic Operations (Associate in Applied Science) Plan 25FC

The Firefighter Basic Operations Associate in Applied Science degree is designed to serve the needs of students interested in obtaining the certifications/licenses required for an entry level position in the Fire Service. Students pursuing the A.A.S. degree are required to complete 25 credit hours of general education, 22 credit hours of Fire Science Technology core courses, and 15 hours of Fire Science Technology electives. There are two tracks to this degree. Students may choose the management (Fire Officer I) track or the non-management track.

Students will be required to provide approved personal protective safety equipment which may be purchased or leased. This equipment consists of firefighter turnouts (coat and pants), firefighting footwear, suspenders, gloves, hood, safety glasses, fire helmet, and self-contained breathing apparatus. All equipment must comply with current National Fire Protection Association (NFPA) Standards.

All students must have a valid NFPA 1001 medical physical and a current background investigation, and must consult with a Fire Science Technology adviser to plan and schedule their program.

## Associate in Applied Science and Career Certificates

### Admission Requirements

To be admitted to this program the student must apply to the Department Chair. Approval will be approved based on conditions that include completion of the Firefighter Basic Operations application, successful completion of a background investigation that includes, but is not limited to the following: a criminal background investigation and fingerprinting; medical physical meeting NFPA Standard 1582, Chapter 6 (Standard on Comprehensive Occupational Medical Program for Fire Departments/Medical Evaluation of Candidates), including qualitative and quantitative respirator use evaluation; provision of NFPA compliant personal protective equipment consisting of turnout coat, turnout pants, suspenders, footwear, hood, helmet, and gloves, provision of self-contained breathing apparatus facepiece that mates to College of Lake County (CLC) provided SCBA; and acknowledgement that the student will become a member of the CLC Fire Department and the acknowledgement that they are required to provide scheduled staffing for the CLC Fire Department.

### Health Physical

Medical physical will meet NFPA Standard 1582, Chapter 6 (Standard on Comprehensive Occupational Medical Program for Fire Departments/Medical Evaluation of Candidates), including qualitative and quantitative respirator use evaluation.

### Program Requirements

<b>First Semester</b> .....	<b>15</b>
ENG 120 Technical Composition I <i>or</i>	
ENG 121 English Composition I .....	3
PSY 121 Introduction to Psychology .....	3
MTH 114 Applied Mathematics I <i>or</i>	
higher numbered mathematics course.....	3
CIT 119 Introduction to Office Software <i>or</i>	
CIT 120 Introduction to Computers .....	3
FST 111 Introduction to Fire Service .....	3
<b>Second Semester</b> .....	<b>17</b>
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices .....	3
EMT 111 Emergency Medical Tech-Basic.....	7
PHY 120 Practical Aspects of Physics.....	4
PSC 122 State and Local Politics .....	3
<b>Third Semester</b> .....	<b>13</b>
FST 130 Basic Operations Firefighter A.....	4
Humanities or Fine Arts Elective *	
(with I/M designation, if needed) .....	3
Concentration/Elective # .....	6

<b>Fourth Semester</b> .....	<b>17</b>
FST 131 Basic Operations Firefighter B.....	4
FST 132 Basic Operations Firefighter .....	4
Concentration/Elective # .....	9

### Total Hours for A.A.S. Degree .....

# A minimum of 15 credit hours of Concentration/Electives are required to fulfill this requirement.

### Elective course selection:

Students must choose 15 elective hours based on their preferred concentration. Management students must take the 15 credit hours listed in the the Management block of elective courses. Non-management students will choose from the Non-Management block of elective courses, which includes some management courses.

### Basic Firefighter Operations Electives for Management 15

FST 116 Fire Fighting Tactics Strat I .....	3
FST 173 Fire Instructor I.....	3
FST 177 Fire Prevention Principles I .....	3
FST 217 Fire Officer Communications .....	3
FST 218 Fire Officer Supervision .....	3
FST 279 Special Topics Fire Service .....	3
EDM 212 Terrorism and Homeland Security .....	3

### Basic Firefighter Operations Electives

#### for Non-Management .....

<b>15</b>	
FST 116 Fire Fighting Tactics Strat I .....	3
FST 117 Fire Fighting Tactics Stra II .....	3
FST 118 Incident Command .....	3
FST 119 Fire Apparatus Engineer.....	3
FST 173 Fire Instructor I.....	3
FST 174 Fire Instructor II .....	3
FST 177 Fire Prevention Principles I .....	3
FST 192 Hazardous Materials First Resp .....	3
FST 217 Fire Officer Communications.....	3
FST 218 Fire Officer Supervision.....	3
FST 273 Fire Science Business and Operations .....	3
FST 274 Fire Administration and the Law .....	3
FST 279 Special Topics Fire Service .....	3
EDM 212 Terrorism and Homeland Security .....	3

For more information on recommended courses or program specific advising, contact the following faculty member or the Business and Social Sciences Division at (847) 543-2047:

Randy Justus

## Health and Wellness Promotion

Biological and Health Sciences Division, Room B213,  
(847) 543-2042

### Health and Wellness Promotion (Associate in Applied Science) Plan 21WA

The focus of the A.A.S. in Health and Wellness Promotion (HWP) is to empower students to help others through prevention of illness, injury, and disease by effective application of principles and practices of holistic coaching. It also provides an opportunity for various health career certificate-seeking students to continue their education in a general health studies capacity and earn an associates degree. Successful completion of this program will prepare students for advanced certifications through the American College of Sports medicine, Wellcoaches Corporation, and the International Coach Federation. The associate degree program is accredited by the National Wellness Institute and the National Consortium for Credentialing Health and Wellness Coaches (NCCHWC). The HWP program is not a limited enrollment program. Day and evening classes are available.

#### Required General Education Coursework .....16-20

BIO 111	Human Form and Function <b>or</b>	
BIO 244	Anatomy and Physiology I <b>and</b>	
BIO 245	Anatomy and Physiology II	.....4-8
CMM 111	Communication Skills <b>or</b>	
CMM 121	Fundamentals of Speech <b>or</b>	
CMM 123	Dynamics/Small Group Discussion	.....3
ENG 120	Technical Composition I <b>or</b>	
ENG 121	English Composition I	.....3
PHI 121	Introduction to Philosophy <b>or</b>	
PHI 125	Introduction to Ethics	.....3
PSY 121	Introduction to Psychology	.....3

#### Required Health and Wellness Promotion Coursework ..19

BUS 121	Introduction to Business	.....3
HCM 175	Nutrition	.....3
HWP 240	Contemporary Health Issues	.....3
HWP 257	Health and Wellness Practicum I	.....1
HWP 258	Health and Wellness Practicum II	.....1
HWP 260	Sport and Exercise Nutrition	.....3
HWP 290	Principles of Wellness Coaching	.....3
PED 228	First Aid/CPR	.....2

#### Required Specialty Option .....25

Select one Specialty Option (25 hours) from the three below:

#### Personal Training Option

PED 243	Theory and Practice of Fitness	.....2
PED 270	Biomechanics and Kinesiology	.....3
PED 271	Exercise Physiology	.....3
PED 272	Exercise Testing and Prescription	.....3
	General Electives	.....14

#### Massage Therapy Option

MAS 110	Massage Structure and Function I	.....2
MAS 112	Kinesiology and Palpation I	.....2
MAS 114	Massage: Business and Communication I	.....3
MAS 116	Clinical Skills and Special Problems	.....3
MAS 119	Introduction to Massage Therapy	.....1
MAS 131	Massage Therapy I: Swedish	.....2
MAS 132	Massage Therapy II: Integrative	.....2
	Electives (select from MAS courses on page 329.)	.....10

#### Wellness Coaching Option

CMM 128	Interviewing Practices	.....3
PED 242	Philosophy of Coaching	.....3
PSY 224	Theories of Personality	.....3
	General Electives	.....16

#### Total Hours for A.A.S. Degree .....60-64

### Personal Training (Certificate) Plan 21WB

The Personal Training certificate program is designed to provide students with the knowledge, skills, and experience necessary to seek out and maintain viable employment in the health and fitness industry. Curricula are aligned with the American College of Sports Medicine (ACSM) Certified Personal Trainer (CPT) Program. Students will also be encouraged to take the ACSM-CPT examination upon successful completion of program coursework.

BIO 111	Human Form and Function <b>or</b>	
BIO 244	Anatomy and Physiology I <b>and</b>	
BIO 245	Anatomy and Physiology II	.....4-8
HCM 175	Nutrition <b>or</b>	
HWP 260	Sport and Exercise Nutrition	.....3
HWP 240	Contemporary Health Issues	.....3
HWP 257	Health and Wellness Practicum I	.....1
HWP 258	Health and Wellness Practicum II	.....1
PED 243	Theory and Practice of Fitness	.....2
PED 228	First Aid/CPR	.....2
PED 270	Biomechanics and Kinesiology	.....3
PED 271	Exercise Physiology	.....3
PED 272	Exercise Testing and Prescription	.....3

#### Total Hours for Certificate .....25-29

Gainful Employment Information: [www.clcillinois.edu/gehwp](http://www.clcillinois.edu/gehwp)

## Associate in Applied Science and Career Certificates

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### Wellness Coaching (Certificate) Plan 21WC

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The Wellness Coaching certificate program is designed to provide students with an introduction to the field of wellness and life coaching. Successful completion of required coursework will assist students with preparation necessary to complete their national certification in wellness or life coaching. It will also enable students to utilize acquired knowledge and skills to enhance existing professional responsibilities. The certificate program is accredited by the National Consortium for Credentialing Health and Wellness Coaches (NCCHWC).

CMM	128	Interviewing Practices .....	3
HWP	240	Contemporary Health Issues .....	3
HWP	257	Health and Wellness Practicum I .....	1
HWP	258	Health and Wellness Practicum II .....	1
HWP	290	Principles of Wellness Coaching .....	3
PED	242	Philosophy of Coaching .....	3
PSY	121	Introduction to Psychology .....	3

**Total Hours for Certificate .....**17

Gainful Employment Information: [www.clcillinois.edu/gehwp](http://www.clcillinois.edu/gehwp)

For more information or program specific advising, contact the department chair, Joana Pabedinskas at (847) 543-2029 or the Biological and Health Sciences Division at (847) 543-2042.

## Health Information Technology

**Biological and Health Sciences Division, Room B213,  
(847) 543-2042**

This is a limited enrollment program. Students are required to meet the screening requirements in effect at the time of screening. Students who screen and are accepted into a limited enrollment program will be required to complete the curriculum that is in place at the time of entrance into the program. If students who screen are not granted admission, they must rescreen and satisfy all screening and curriculum requirements in place for a future program start.

### Screening Deadline: First Wednesday in February

The field of health information provides a wide variety of professional opportunities in the health care industry. Health information is a unique profession that incorporates clinical, information technology and management skills, giving graduates the background to work in a range of health care settings. Courses in medical terminology, anatomy and physiology, and medical science lay the foundation for the program, which focuses on collecting, maintaining, retrieving, and analyzing the health information of patients. Students also learn the legal aspects of health information, statistics, coding and reimbursement methods, health care quality improvement techniques, as well as health records management.

Graduates of CLC's Health Information Technology Program include coding professionals, health information department managers, cancer registrars, nursing home consultants, clinical documentation specialists, medical billers, and medical office managers, among others. Work settings include hospitals, physicians' offices, clinics, insurance companies, professional associations, nursing homes, and medical billing services.

For students interested in health care, but not direct patient care, health information technology prepares students for a satisfying and rewarding career in health care and related fields.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

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## Health Information Technology (Associate in Applied Science) Plan 21HM

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*See addendum for corrections to this section.*

### Accreditation and Certification

The Health Information Technology Program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). Graduates of the program are eligible to apply to write for the certification examination of the American Health Information Management Association for the designation RHIT (Registered Health Information Technician).

### Admission to the Program

Many courses are available in the evening; however, to complete the degree some day-only classes are required.

Interested students may take HIT 111, 113, 115, 117, 119, 131, 132, 171, 215 and 271 prior to being admitted to the program; however, the number of students admitted to the Professional Practice Experience (HIT 212 and HIT 213) each year is limited. Therefore, a screening procedure is used to select the academically best qualified from those who request consideration. Preference will be given to residents of Community College District 532 (and community colleges with which CLC has a Joint Educational Agreement). Students who live outside of CLC's district but are eligible for in-district tuition because they are employed by a district employer are NOT considered residents of the district for purposes of selection into the program. Students should seek admission to the Health Information Technology Program the year prior to enrolling in HIT 212. (e.g., If you expect to take HIT 212 in Fall 2019, apply by February 2018.) If you are accepted into the program and do not enroll in HIT 212 as scheduled, CLC will attempt to accommodate the schedule change but there is no guarantee you will be permitted to enroll in HIT 212 in subsequent years. Please review the admission requirements that are listed below.

**To be considered for admission to the Health Information Technology Program, students must complete the following screening requirements prior to the screening deadline.**

**Students must have submitted the following documents to the Welcome and One-Stop Center:**

- A. Student Information Form
- B. **Official** high school transcript with graduation date OR **Official** GED test scores  
OR  
**Official** college transcripts with graduation date and degree awarded  
OR  
**Official** foreign high school or college transcript evaluated by a NACES approved agency

## Associate in Applied Science and Career Certificates

- C. Health Information Technology Program Request for Screening Form
- D. If using courses from another college to meet prerequisites or degree requirements, submit an official transcript to the Records Office. It is also highly recommended to submit a “Request for Evaluation of Prior College Transcripts” form.

### Minimum Selection Criteria: student records must indicate the following:

- A. High school graduate or equivalent or high school senior in last term
- B. College Reading and Writing Readiness and Basic Algebra Readiness
- C. CLC Cumulative GPA is 2.0 or above
- D. NLN PAX with minimum composite RN percentile rank of 50 (within 3 years prior to the screening deadline)
- E. Attendance at a Health Information Technology Information Session (within two years of the screening deadline)

Note: Applicants may take the NLN PAX exam once every 90 days (approximately three months). NLN PAX exam results that are less than 90 days between exams will not be considered. Scores used for screening into the HIT program will be valid for only 3 years prior to a screening deadline. Scores older than 3 years will not be considered for screening. Visit [www.nlnonlinetesting.org](http://www.nlnonlinetesting.org) for available test dates and times or visit the Health Information Technology webpage at [www.clcillinois.edu/programs/hit](http://www.clcillinois.edu/programs/hit). Instructions for registering for the test are available on the webpage.

Students who are selected for the program are required to undergo a background check and a urine drug screen. The results of the background check and drug screen may result in the student losing his/her seat in the program. The costs are borne by the student.

Students who are selected for the program are required to attend a mandatory orientation session. Failure to attend the mandatory orientation session may result in the student losing his/her seat in the program and the next qualified student on the list will be selected in his/her place.

Students must earn a grade of “C or better” in all HIT and BIO courses.

<b>Summer Session</b> .....	<b>3</b>
HIT 111 Medical Terminology .....	3
<b>First (Fall) Semester</b> .....	<b>14</b>
HIT 115 Fundamentals of HIT .....	3
HIT 119 Pharmacology .....	1

HIT 131 Basic ICD10CM Coding .....	3
HIT 215 Medical Science .....	3
+ BIO 111 Human Form and Function <i>or</i>	
+ BIO 244 Anatomy and Physiology I <i>and</i>	
BIO 255 Anatomy and Physiology II .....	4-8

<b>Second (Spring) Semester</b> .....	<b>16</b>
HIT 113 Ethical/Legal Aspects of Medical Records .....	2
HIT 117 Basic CPT Coding .....	3
■ HIT 217 Health Information Systems and Data Literacy .....	3
■ HIT 272 Reimbursement Systems in Healthcare .....	2
AOS 112 Automated Office Technologies <i>or</i>	
CIT 120 Introduction to Computers <i>or</i>	
CIT 119 Introduction to Office Software .....	3
ENG 121 English Composition I <i>or</i>	
ENG 120 Technical Composition .....	3

<b>Summer Session</b> .....	<b>3</b>
Social Science elective .....	3

<b>Third (Fall) Semester</b> .....	<b>15</b>
HIT 132 Basic ICD1 OPCS Coding .....	2
HIT 171 Insurance Procedures for the Medical Office.....	3
HIT 212 Professional Practice Experience in Health Information I .....	4
CIT 111 Comprehensive Spreadsheet <i>or</i>	
CIT 112 Comprehensive Database .....	3
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 122 Business and Professional Speaking <i>or</i>	
CMM 123 Dynamics of Small Group Discussion <i>or</i>	
CMM 128 Interviewing Practices .....	3

<b>Fourth (Spring) Semester</b> .....	<b>14</b>
~ HIT 231 Leadership and Management in Health Information Management .....	2
~ HIT 232 Quality Management and Healthcare Statistics .....	3
HIT 271 Advanced Coding .....	2
HIT 213 Professional Practice Experience in Health Information II (1st 8 weeks) .....	2
HIT 218 Seminar in Health Information.....	2
Humanities/Fine Arts elective .....	3

<b>Total Hours for A.A.S. Degree</b> .....	<b>65-69</b>
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■ HIT 217 and HIT 272 will be offered in the spring of 2018 ONLY.

~ HIT 231 and HIT 232 will be offered in the spring of 2019 ONLY.

+ If BIO 124 has been taken, BIO 111/BIO 244 and BIO 245 are not needed.

Students should seek the advice of the HIT faculty for course scheduling every semester.

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**Medical Billing Specialist  
(Certificate) Plan 21HN**

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Medical billers play a critical role in the financial aspects of a physician’s practice. They report the patient’s diagnosis and the services rendered to that patient using special medical codes. These codes are included on the bills submitted to insurance companies, managed care plans, and Medicare. Medical billers need to have extensive knowledge of medical terminology, coding, and insurance procedures. Medical billers are employed by physicians’ offices, clinics, and billing services.

Medical billing is not a limited enrollment program. Day and evening classes are available.

All of the courses may be applied to the Health Information Technology associate degree program if the student desires to progress in the future to become a Registered Health Information Technician (RHIT).

A student must earn a grade of “C or better” in all HIT and BIO courses.

<b>First (Fall) Semester</b>	<b>.....10</b>
HIT 111 Medical Terminology	.....3
+ BIO 111 Human Form and Function <i>or</i>	
+ BIO 244 Anatomy and Physiology I <i>and</i>	
BIO 245 Anatomy and Physiology II	.....4-8
HIT 171 Insurance Procedures for the Medical Office	.....3
<b>Second (Spring) Semester</b>	<b>.....10</b>
AOS 112 Computer Basics/Software Applications <i>or</i>	
CIT 119 Introduction to Office Software <i>or</i>	
CIT 120 Introduction to Computers	.....3
HIT 117 Basic CPT Coding	.....3
HIT 119 Pharmacology	.....1
HIT 131 Basic ICD-10-CM Coding	.....3
<b>Total Hours for Certificate</b>	<b>.....20-24</b>

+ If BIO 124 has been taken, BIO 111/BIO 244 and BIO 245 are not needed.

Gainful Employment Information: [www.clcillinois.edu/gehit](http://www.clcillinois.edu/gehit)

For more information on recommended courses or program specific advising, contact faculty members Ellen Anderson at (847) 543-2867, Margaret Kyriakos at (847) 543-2879, Christina Melnytschuk at (847) 543-2886 or the Biological and Health Sciences division at (847) 543-2042.

## Heating, Ventilation, Air Conditioning, Refrigeration Engineering Technology

**Engineering, Math and Physical Sciences Division  
Room T302, (847) 543-2044**

The HVACR program provides instruction in air conditioning, heating, and refrigeration. Introductory courses in electricity, electric motors, and theory of refrigeration are included. Advanced work in the commercial area includes work on reach-in and walk-in units found in stores, dairies, and markets. Other areas of study include uses of air conditioning, temperature and humidity control, air circulation, cleaning, installation, and troubleshooting of equipment. Students are required to provide their own basic tools, and to take a national exit exam which will give passing students national recognition on an A.R.I. (Air Conditioning and Refrigeration Institute) National Registry, which goes to Refrigeration, Heating and Air Conditioning employers.

For students interested in **Sustainable Programs**, please see page 221 for options, or contact the identified department chair for more information.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

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### Residential Heating Technician (Certificate) Plan 24RJ

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The Residential Heating Technician Certificate program prepares students for employment as residential heating trainee. This certificate places a strong emphasis on operational characteristics of various types of residential heating equipment, its wiring, and safety procedures. Students learn to use refrigerants, gauges, and electrical test equipment in a residential setting. Students will be given a national exit exam after each advanced course which will provide passing students recognition on the Air Conditioning, Heating, and Refrigeration Institute (AHRI) national registry distributed to heating, air conditioning, ventilation, and refrigeration employers.

Note: Students are required to provide their own basic tools.

HET	110	Basic Refrigeration Systems .....	4
HET	111	HVACR Electricity I .....	4
HET	130	Heating I Residential Appliances .....	4
HET	190	EPA Certification Preparation .....	2

**Total Hours for Certificate .....14**

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### Residential Air Conditioning Technician (Certificate) Plan 24RN

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The Residential Air Conditioning Technician Certificate program prepares students for employment as residential air conditioning trainee. This certificate places a strong emphasis on operational characteristics of various types of residential air conditioning equipment, its wiring, and safety procedures. Students learn to use refrigerants, gauges, and electrical test equipment in a residential setting. Students will be given a national exit exam after each advanced course which provides passing students recognition on the Air Conditioning, Heating, and Refrigeration Institute (AHRI) national registry distributed to heating, air conditioning, ventilation, and refrigeration employers.

Note: Students are required to provide their own basic tools.

HET	110	Basic Refrigeration Systems .....	4
HET	111	HVACR Electricity I .....	4
HET	150	Air Conditioning I Split-Systems.....	4
HET	190	EPA Certification Preparation .....	2

**Total Hours for Certificate .....14**

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### Commercial Refrigeration Technician (Certificate) Plan 24RK

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The Commercial Refrigeration Technician Certificate program prepares students for employment as commercial refrigeration trainee. This certificate places a strong emphasis on the commercial refrigeration industry and emphasizes hands-on service and installation techniques, soldering and brazing, safety, and mechanical and electrical troubleshooting. Students learn to use refrigerants, gauges, and electrical test equipment in a commercial setting. Students will be given a national exit exam after each advanced course which provides passing students recognition on the Air Conditioning, Heating, and Refrigeration Institute (AHRI) national registry distributed to heating, air conditioning, ventilation, and refrigeration employers.

Note: Students are required to provide their own basic tools.

HET	110	Basic Refrigeration Systems .....	4
HET	111	HVACR Electricity I .....	4
HET	172	Refrigeration II Commercial Appliances .....	4
HET	190	EPA Certification Preparation .....	2

**Total Hours for Certificate .....14**

**Electrical Troubleshooting Technician  
(Certificate) Plan 24RL**

The Electrical Troubleshooting Technician Certificate program prepares students to specialize in electrical troubleshooting for employment as HVAC trainees. This certificate places a strong emphasis on national Electrical Code, meters, schematics, and wiring diagrams, electrical troubleshooting, electrical service procedures, electrical test equipment, and safety. Students learn to use electrical test equipment found in a HVAC setting. Students will be given a national exit exam after each advanced course which provides passing students recognition on the Air Conditioning, Heating, and Refrigeration Institute (AHRI) national registry distributed to heating, air conditioning, ventilation, and refrigeration employers.

Note: Students are required to provide their own basic tools.

HET 110	Basic Refrigeration Systems	4
HET 111	HVACR Electricity I	4
HET 119	HVACR Electricity II	4
HET 190	EPA Certification Preparation	2

**Total Hours for Certificate** .....14

**HVAC/R Engineering Technology  
(Associate in Applied Science) Plan 24RD**

The Residential HVAC A.A.S. program prepares students for service and installation positions with specialization in the design, layout, installation, and service of residential HVAC equipment. Students acquire skills in safety, HVAC principles, soldering and brazing, mechanical and electrical troubleshooting, refrigerant handling, the use of refrigerant gauges, and electrical test equipment.

The Residential HVAC curriculum is aligned with the educational standards of the Partnership for Air Conditioning, Heating, Refrigeration Accreditation (PAHRA) and the Illinois Occupational Skill Standards for HVACR. HET courses in A/C split-systems, residential HVAC systems, air movement and ventilation, advanced electrical, HVACR codes, EPA and NATE certification preparation, hydronic heating, and a HET capstone course meet re-certification requirements for NATE.

The Residential HVAC program is a partner of the Air Conditioning, Heating, and Refrigeration Institute (AHRI). Upon completion of a second semester course students qualify to sit for the Industry Competency Examination (ICE), a nationally recognized credential in the HVACR industry which provides passing students national recognition on an

AHRI or North American Technician Excellence (NATE) national registry distributed to heating, ventilation, air conditioning, and refrigeration employers.

Note: Students are required to provide their own basic tools.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

**Required General Education Coursework** .....15

CMM	Elective (See page 122 for selections)	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I	3
ECO 110	Economics for Business and Industry <i>or</i> Social Science Elective *	3
HUM 127	Critical Thinking <i>or</i> Humanities or Fine Arts Elective *	3
MTH 114	Applied Mathematics I <i>or</i>	
MTH 115	Applied Mathematics II <i>or</i>	
MTH 117	Technical Mathematics I	3

**Required HVAC/R Engineering  
Technology Coursework**.....40

HET 110	Basic Refrigeration Systems	4
HET 111	HVACR Electricity I	4
HET 119	HVACR Electricity II	4
HET 130	Heating I Residential Appliances	4
HET 150	Air Conditioning I Split-Systems	4
HET 155	HVAC/R Blueprint Reading	1
HET 172	Refrigeration II Commercial Appliances	4
HET 190	EPA Certification Preparation	2
HET 191	HVAC/R Load Calculation	4
HET 230	Air Movement and Ventilation	4
HET 251	Sheet Metal Fabrication	1
HET 252	A/C III Installation and Service	4

**Technical Electives**.....8-12

HET 170	Refrigeration I Small Appliances	4
HET 192	HVACR Engineering Tech Practicum	1
HET 193	Recertification Preparation	0.5
HET 194	NATE Certification Preparation	2
HET 219	HVACR Electricity III	4
HET 231	Heating II Hydronic Heating Systems	4
HET 250	A/C II Commercial HVAC Appliances	4
HET 272	Refrigeration III Comm. Appliance Install	4
HET 273	Direct Digital Controls	4
HET 293	HVAC Codes	3
HET 294	Green Building/Energy Sustainability	3
PHY 121	General Physics I	5
HET 295	HET Capstone	3
ELC 171	Programmable Logic Controllers	3
ELC 271	Advanced Programmable Controls	3
PHY 121	General Physics I	5
WLD 170	General Welding	3

**Total Hours for A.A.S** .....63-67

## Associate in Applied Science and Career Certificates

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### HVAC/R Installation Technician (Certificate) Plan 24RY

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This certificate is designed to give the HVAC/R student the ability and knowledge in the area of installation which includes the skills in installing HVAC/R equipment and fabricating sheet metal duct systems.

HET	110	Basic Refrigeration Systems .....	4
HET	111	HVACR Electricity I .....	4
HET	130	Heating I Residential Appliances .....	4
HET	155	HVAC/R Blueprint Reading .....	1
HET	193	Recertification Preparation or	
HET	190	EPA Certification Preparation .....	0.5-2
HET	251	Sheet Metal Fabrication.....	1
HET	252	A/C III Installation and Service .....	4

**Total Hours for Certificate .....**18.5-20

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### HVAC/R Service Technician (Certificate) Plan 24RI

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The HVAC/R Service Technician Certificate program prepares students for specialization and employment as both residential and commercial HVAC/R equipment technicians. Courses provide exposure to HVAC/R industry and emphasize hands-on service and installation techniques, soldering and brazing, safety, and mechanical and electrical troubleshooting. Students learn to use refrigerants, gauges, and electrical test equipment in a commercial setting. Students will be given a national exit exam after each advanced course which provide passing students recognition on the Air Conditioning, Heating, and Refrigeration Institute (AHRI) national registry distributed to heating, air conditioning, ventilation, and refrigeration employers.

Note: Students are required to complete the HVAC/R Installation Technician certificate (24RY) before beginning this certificate. In addition students must provide their own basic tools.

HET	119	HVACR Electricity II .....	4
HET	150	Air Conditioning I Split-Systems .....	4
HET	191	HVACR Load Calculation.....	4
HET	194	NATE Certification Preparation .....	2
HET	230	Air Movement and Ventilation .....	4
HET	231	Heating II Hydronic Heating Systems .....	4
HET	250	A/C II Commercial HVAC Appliances .....	4
HET	293	HVAC Codes .....	3

**Total Hours for Certificate.....**29

Gainful Employment Information: [www.clcillinois.edu/gehet](http://www.clcillinois.edu/gehet)

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### Residential Energy Auditing (Certificate) Plan 24RW

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The Residential Energy Audit Certificate prepares students to specialize in the energy audit and insulation of residential buildings, while preparing students for employment as energy auditors. It also prepares students to sit for the Residential Energy Services Network's (RESNET®) exam. Coursework provides an introduction to the energy audit and building insulation industry and emphasizes hands-on blower door inspections, soldering and brazing, safety, and mechanical and electrical troubleshooting. Students learn to use refrigerants, gauges, and electrical test equipment in a residential and commercial building setting.

Note: Students are required to provide their own basic tools.

HET	110	Basic Refrigeration Systems .....	4
HET	111	HVACR Electricity I .....	4
HET	291	Energy Auditing .....	4
HET	292	Resnet Exam Preparation .....	1
HET	294	Green Building/Energy Sustainability .....	3

**Total Hours for Certificate .....**16

Gainful Employment Information: [www.clcillinois.edu/gehet](http://www.clcillinois.edu/gehet)

## Horticulture

**Biological and Health Sciences Division, Room B213,  
(847) 543-2042**

The field of horticulture is evolving quickly to address current sustainability issues, whether in plant production, landscape design or construction and management. The CLC Horticulture program has incorporated sustainability topics across its curriculum to better prepare students for employment in the green industry. Graduates enter a range of employment including local landscape companies, environmental consulting firms, municipalities and park districts, public land management agencies and entrepreneurial ventures.

A.A.S. degree students must select 18 credit hours of General Education electives from those listed on page 122, 27 credit hours of horticultural core courses and 18 hours of coursework in the student's chosen specialty area. Students entering the field must be well-versed in basic botany, plant identification and care, soil science, entomology, plant pathology and business. These courses are included in the core requirements for all majors. Additional coursework to pursue a specialty or major allows students to develop skills in one of 5 areas of study: landscape design, landscape construction and maintenance, horticulture production, sustainable agriculture or natural areas management.

Horticulture students also may choose a certificate track, which is a specific combination of 18-25 credit hours within a given specialty area. This option is well-suited for students who wish to enter the job market quickly, enhance their skills in a specific area for career advancement, or redirect their training for a new career. Students may select from certificate programs in: landscape design, landscape maintenance, floral design, arboriculture, sustainable agriculture, and natural areas management.

### Horticulture Production

(Associate in Applied Science) Plan 21HA

This program of study is geared for students wanting to grow plants, primarily ornamental and native plants for the landscape industry. Students gain exposure to a variety of growing situations, including greenhouse, high tunnel and nursery production applications. Coursework includes organic and sustainable production options as well as propagation methods.

<b>First Semester</b>		<b>16</b>
HRT 121	Introduction to Horticulture.....	3
HRT 124	Introduction to Soils .....	4
HRT 125	Tree and Shrub Identification .....	3
CMM 111	Communication Skills <i>or</i>	
* CMM 121	Fundamentals of Speech <i>or</i>	
CMM 123	Dynamics of Small Group Discussion <i>or</i>	
CMM 128	Interviewing Practices .....	3
ENG 120	Technical Composition <i>or</i>	
* ENG 121	English Composition I.....	3
<b>Second Semester</b>		<b>15</b>
HRT 221	Plant Propagation .....	3
HRT 127	Perennials, Annuals and Weeds.....	3
HRT 129	Plant Pathology .....	3
HRT 222	Greenhouse Crop Production and Management .....	3
	Social Sciences Elective .....	3
<b>Third Semester</b>		<b>17</b>
HRT 126	Entomology .....	3
HRT 228	Nursery Production .....	3
HRT 229	Organic and Sustainable Practices .....	3
HRT 282	Seminars in Horticulture .....	1
BIO 222	General Botany .....	4
	Social Sciences Elective .....	3
<b>Fourth Semester</b>		<b>15</b>
HRT 280	Horticulture Experience.....	3
HRT 160	Business Issues in Horticulture <i>or</i>	
BUS 121	Introduction to Business .....	3
	Horticulture Elective (Recommend HRT 285) ..	3
	Humanities or Fine Arts Elective .....	3
	Science or Math Elective.....	3
<b>Total Hours for A.A.S. Degree</b>		<b>63</b>

\* Recommended if considering future transfer.

## Associate in Applied Science and Career Certificates

### Landscape Design

(Associate in Applied Science) Plan 21HB

Design majors are prepared for entry level positions with landscape firms and become versed with all phases of the landscape process from site analysis to design to installation. Students are trained in both hand-drawing and computer graphics, and develop designs for a variety of residential, commercial and public sites.

<b>First Semester</b> .....	<b>16</b>
HRT 121 Introduction to Horticulture.....	3
HRT 124 Introduction to Soils .....	4
HRT 125 Tree and Shrub Identification .....	3
HRT 140 Landscape Graphics .....	3
ENG 120 Technical Composition <i>or</i>	
* ENG 121 English Composition I.....	3
<b>Second Semester</b> .....	<b>15</b>
HRT 127 Perennials, Annuals and Weeds.....	3
HRT 129 Plant Pathology .....	3
HRT 240 Landscape Design .....	3
HRT 245 Computer Landscape Design.....	3
CMM 111 Communication Skills <i>or</i>	
* CMM 121 Fundamentals of Speech <i>or</i>	
CMM 123 Dynamics of Small Group Discussion <i>or</i>	
CMM 128 Interviewing Practices .....	3
<b>Third Semester</b> .....	<b>17</b>
BIO 222 General Botany .....	4
HRT 126 Entomology .....	3
HRT 260 Landscape Construction .....	3
HRT 282 Seminars in Horticulture .....	1
Social Sciences Elective .....	3
Humanities or Fine Arts Elective .....	3
<b>Fourth Semester</b> .....	<b>15</b>
HRT 160 Business Issues in Horticulture <i>or</i>	
BUS 121 Introduction to Business .....	3
HRT 280 Horticulture Experience.....	3
Horticulture Elective (Recommend HRT 285) ..	3
Social and Behavioral Science Elective .....	3
Science or Math Elective.....	3
<b>Total Hours for A.A.S. Degree</b> .....	<b>63</b>

\* Recommended if considering future transfer.

### Landscape Construction and Maintenance

(Associate in Applied Science) Plan 21HC

The construction and maintenance specialty is ideal for those interested in work as landscape contractors, either for landscape firms or as entrepreneurs. Students take all the general horticulture coursework and add relevant specialty courses such as small engines repair and maintenance and urban forestry management.

<b>First Semester</b> .....	<b>16</b>
HRT 121 Introduction to Horticulture.....	3
HRT 124 Introduction to Soils .....	4
HRT 125 Tree and Shrub Identification .....	3
HRT 150 Landscape Maintenance .....	3
ENG 120 Technical Composition <i>or</i>	
* ENG 121 English Composition I.....	3
<b>Second Semester</b> .....	<b>15</b>
HRT 127 Perennials, Annuals and Weeds.....	3
HRT 129 Plant Pathology .....	3
HRT 165 Small Engine Repair and Maintenance.....	3
HRT 265 Urban Forestry Management.....	3
CMM 111 Communication Skills <i>or</i>	
* CMM 121 Fundamentals of Speech <i>or</i>	
CMM 123 Dynamics of Small Group Discussion <i>or</i>	
CMM 128 Interviewing Practices .....	3
<b>Third Semester</b> .....	<b>17</b>
BIO 222 General Botany .....	4
HRT 126 Entomology .....	3
HRT 260 Landscape Construction .....	3
HRT 282 Seminars in Horticulture .....	1
Social Sciences Elective .....	3
Humanities or Fine Arts Elective .....	3
<b>Fourth Semester</b> .....	<b>15</b>
HRT 160 Business Issues in Horticulture <i>or</i>	
BUS 121 Introduction to Business .....	3
HRT 280 Horticulture Experience.....	3
Horticulture Elective (Recommend HRT 285) ..	3
Social Sciences Elective .....	3
Science or Math Elective.....	3
<b>Total Hours for A.A.S. Degree</b> .....	<b>63</b>

\* Recommended if considering future transfer.

**Natural Areas Management  
(Associate in Applied Science) Plan 21HP**

Natural areas management is the practice of land restoration using the scientific principles of restoration ecology and conservation biology. Regional ecology of prairie, savanna, woodland and wetland ecosystems is emphasized. Students will gain experience in floristic identification and monitoring, landscape assessment, and practices of land management such as invasive species control and prescribed burning. Course-work includes extensive fieldtrips and work in various field situations.

<b>First Semester</b> .....	<b>16</b>
HRT 121 Introduction to Horticulture.....	3
HRT 124 Introduction to Soils .....	4
HRT 125 Tree and Shrub Identification .....	3
CMM 111 Communication Skills <i>or</i>	
* CMM 121 Fundamentals of Speech <i>or</i>	
CMM 123 Dynamics of Small Group Discussion <i>or</i>	
CMM 128 Interviewing Practices .....	3
ENG 120 Technical Composition <i>or</i>	
* ENG 121 English Composition I.....	3
<b>Second Semester</b> .....	<b>14-15</b>
HRT 127 Perennials, Annuals and Weeds.....	3
ESC 126 Geology of Illinois <i>or</i>	
ESC 224 Environmental Geology .....	2-3
BIO 120 Environmental Biology .....	4
BIO 126 Local Flora .....	2
Humanities or Fine Arts Elective .....	3
<b>Third Semester</b> .....	<b>18</b>
BIO 222 General Botany .....	4
HRT 126 Entomology .....	3
HRT 286 Natural Areas Management .....	4
HRT 282 Seminars in Horticulture .....	1
# HRT 280 Horticulture Production .....	3
Social Sciences Elective .....	3
<b>Fourth Semester</b> .....	<b>15</b>
HRT 129 Plant Pathology .....	3
HRT 160 Business Issues in Horticulture <i>or</i>	
BUS 121 Introduction to Business .....	3
Horticulture Elective (Recommend HRT 285) ..	3
Social Sciences Elective .....	3
Science or Math Elective.....	3
<b>Total Hours for A.A.S. Degree</b> .....	<b>63-64</b>

\* Recommended if considering future transfer.  
# May be taken during the summer session.

**Sustainable Agriculture  
(Associate in Applied Science) Plan 21HS**

Sustainable agriculture is an emerging specialty field that is growing quickly as we seek to find economically viable ways to maintain farm land and sustainable ways to support local food production. Students will take a variety of hands-on courses in such topics as permaculture, extended season production, and seasonal fruit and vegetable production. Graduates are prepared for work as skilled farm laborers and managers or for entry into entrepreneurial support programs like the Farm Business Development Center.

<b>First Semester</b> .....	<b>16</b>
AGR 111 Permaculture Production .....	2
HRT 121 Introduction to Horticulture.....	3
HRT 124 Introduction to Soils .....	4
HRT 125 Tree and Shrub Identification .....	3
ENG 120 Technical Composition <i>or</i>	
* ENG 121 English Composition I.....	3
<b>Second Semester</b> .....	<b>16</b>
AGR 112 Season Extension Methods .....	2
AGR 114 Annual Fruit and Vegetable Production .....	2
HRT 127 Perennials, Annuals and Weeds.....	3
HRT 129 Plant Pathology .....	3
CMM 111 Communication Skills <i>or</i>	
* CMM 121 Fundamentals of Speech <i>or</i>	
CMM 123 Dynamics of Small Group Discussion <i>or</i>	
CMM 128 Interviewing Practices .....	3
Humanities or Fine Arts Elective .....	3
<b>Third Semester</b> .....	<b>17</b>
AGR 210 Agricultural Marketing .....	3
BIO 222 General Botany .....	4
HRT 126 Entomology .....	3
HRT 229 Organic and Sustainable Practices .....	3
HRT 282 Seminars in Horticulture .....	1
Social Sciences Elective .....	3
<b>Fourth Semester</b> .....	<b>15</b>
HRT 160 Business Issues in Horticulture <i>or</i>	
BUS 121 Introduction to Business .....	3
HRT 221 Plant Propagation .....	3
HRT 222 Greenhouse Crop Productio and Management .....	3
Social Sciences Elective .....	3
Science or Math Elective.....	3
<b>Total Hours for A.A.S. Degree</b> .....	<b>63</b>

\* Recommended if considering future transfer.

## Associate in Applied Science and Career Certificates

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### Landscape Design (Certificate) Plan 21HD

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<b>Fall Semester</b> .....	<b>9</b>
HRT 125 Tree and Shrub Identification .....	3
HRT 140 Landscape Graphics .....	3
HRT 260 Landscape Construction .....	3
<b>Spring Semester</b> .....	<b>9</b>
HRT 127 Perennials, Annuals and Weeds.....	3
HRT 240 Landscape Design .....	3
HRT 245 Computer Landscape Design.....	3
<b>Total Hours for Certificate</b> .....	<b>18</b>

Gainful Employment Information: [www.clcillinois.edu/gehrt](http://www.clcillinois.edu/gehrt)

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### Landscape Maintenance (Certificate) Plan 21HH

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<b>Fall Semester</b> .....	<b>9</b>
HRT 125 Tree and Shrub Identification <i>or</i>	
HRT 127 Perennials, Annuals and Weeds.....	3
HRT 150 Landscape Maintenance .....	3
HRT 260 Landscape Construction .....	3
<b>Spring Semester</b> .....	<b>9</b>
HRT 165 Small Engine Repair and Maintenance .....	3
HRT 160 Business Issues in Horticulture <i>or</i>	
BUS 121 Introduction to Business .....	3
HRT 265 Urban Forestry Management.....	3
<b>Total Hours for Certificate</b> .....	<b>18</b>

Gainful Employment Information: [www.clcillinois.edu/gehrt](http://www.clcillinois.edu/gehrt)

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### Arboriculture (Certificate) Plan 21HL

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<b>Fall Semester</b> .....	<b>12</b>
* HRT 121 Introduction to Horticulture.....	3
HRT 125 Tree and Shrub Identification .....	3
HRT 126 Entomology .....	3
HRT 150 Landscape Maintenance .....	3
<b>Spring Semester</b> .....	<b>6</b>
HRT 129 Plant Pathology .....	3
HRT 265 Urban Forestry Management.....	3

\*Also offered during the summer session.

**Total Hours for Certificate** .....

**18**

Gainful Employment Information: [www.clcillinois.edu/gehrt](http://www.clcillinois.edu/gehrt)

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### Natural Areas Management (Certificate) Plan 21HQ

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*See addendum for corrections to this section.*

<b>Fall Semester</b> .....	<b>7</b>
BIO 120 Environmental Biology .....	4
HRT 125 Tree and Shrub Identification .....	3
<b>Spring Semester</b> .....	<b>7-8</b>
ESC 126 Geology of Illinois <i>or</i>	
ESC 224 Environmental Geology .....	2-3
BIO 126 Local Flora .....	2
HRT 160 Business Issues in Horticulture <i>or</i>	
BUS 121 Introduction to Business .....	3

**Total Hours for Certificate** .....

**18-19**

Gainful Employment Information: [www.clcillinois.edu/gehrt](http://www.clcillinois.edu/gehrt)

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### Sustainable Agriculture (Certificate) Plan 21HT

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<b>Fall Semester</b> .....	<b>15</b>
* HRT 121 Introduction to Horticulture.....	3
HRT 124 Introduction to Soils .....	4
HRT 229 Organic and Sustainable Practices .....	3
AGR 111 Permaculture Production .....	2
AGR 210 Agricultural Marketing .....	3
<b>Spring Semester</b> .....	<b>10</b>
HRT 221 Plant Propagation .....	3
HRT 222 Greenhouse Crop Production and Management .....	3
AGR 112 Season Extension Methods .....	2
AGR 114 Annual Fruit and Vegetable Production .....	2

\*Also offered during the summer session.

**Total Hours for Certificate** .....

**25**

Gainful Employment Information: [www.clcillinois.edu/gehrt](http://www.clcillinois.edu/gehrt)

For more information on recommended courses or program specific advising, contact department chair Rory Klick at (847) 543-2320 or the Biological and Health Sciences division at (847) 543-2042.

## Hospitality and Culinary Management

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### Hospitality and Culinary Management (Associate in Applied Science) Plan 22FB

The Hospitality and Culinary Management program provides students with technical skills in food production and food operations and prepares students for managerial positions in the hospitality industry. Students can pursue careers as cooks, chefs, bakers, pastry chefs, and supervisors and managers in restaurants, clubs, hotels and resorts. Students acquire skills in food sanitation and safety, culinary principles, baking and pastry, supervision and leadership, menu development, purchasing and cost control.

The Hospitality and Culinary Management program is a partner of the National Restaurant Association Educational Foundation (NRAEF). Upon completion of the A.A.S. degree program students qualify to apply for the NRAEF Diploma, a nationally recognized credential in the hospitality industry. The Hospitality and Culinary Management curriculum is aligned with the educational standards of the American Culinary Federation (ACF). CLC courses in Hospitality Supervision, Nutrition, and ServSafe: Foodservice Sanitation meet the initial certification and/or re-certification requirements for the ACF Chefs Certification Program.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

<b>First Semester (Fall)</b> .....	<b>12</b>
HCM 110 Introduction to Hospitality Industry .....	3
HCM 111 Culinary Principles I .....	5
HCM 113 ServSafe: Food Service Sanitation .....	1
AOS 122 Business Math <i>or</i>	
MTH 114 or higher Math Elective .....	3
<b>Second Semester (Spring)</b> .....	<b>16</b>
HCM 170 Patisserie I .....	5
HCM 112 Culinary Principles II .....	5
HCM 212 Menu Marketing and Management .....	3
HCM 213 Purchasing and Inventory Control.....	3
<b>Third Semester (Fall)</b> .....	<b>14</b>
HCM 171 Culinary Principles III.....	5
HCM 175 Nutrition .....	3
PSY 122 Industrial/Organizational Psychology .....	3
Humanities or Fine Arts Elective* .....	3

<b>Fourth Semester (Spring)</b> .....	<b>16</b>
HCM 185 Garde Manger .....	4
HCM 214 Hospitality Supervision .....	3
HCM Elective .....	3
ENG 120 Technical Composition I <i>or</i>	
ENG 121 English Composition I.....	3
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 122 Business and Professional Speaking <i>or</i>	
CMM 123 Dynamics of Sm. Group Discussion <i>or</i>	
CMM 128 Interviewing Practices .....	3
<b>Fifth Semester (Fall)</b> .....	<b>11</b>
HCM 275 Contemporary Restaurant Principles.....	5
HCM 273 Controlling Hospitality Costs .....	3
HCM Elective .....	3
<b>Total Hours for A.A.S. Degree</b> .....	<b>69</b>

#### HCM Electives

HCM 151 American Regional Cuisine.....	3
HCM 152 European Cuisine .....	3
HCM 153 Latin American Cuisine.....	3
HCM 154 Italian Regional Cuisine .....	3
HCM 155 French Regional Cuisine .....	3
HCM 159 Culinary Arts Study Abroad.....	1-3
HCM 271 Hospitality Leadership .....	3
HCM 272 Culinary and Hospitality Internship .....	3
HCM 299 Selected Topics in Hospitality .....	1-5

## Baking and Pastry Arts

### (Associate in Applied Science Degree) Plan 22FK

The Baking and Pastry Arts program provides students with the knowledge and technical skills needed for employment in the baking and pastry industry. Students can pursue careers as bakers and pastry chefs in bakeries, restaurants, hotels, country clubs, retail stores and catering. Students acquire basic and advanced skills including artisan bread making, European tortes and pastries, chocolate work, frozen desserts, special diets and healthful baking. The program also prepares students for managerial positions in the pastry industry.

<b>First Semester (Fall)</b> .....	<b>15</b>
HCM 110 Introduction to the Hospitality Industry .....	3
HCM 113 ServSafe: Food Service Sanitation <sup>1</sup>	
HCM 170 Patisserie I .....	5
AOS 122 Business Mathematics <i>or</i>	
MTH 114 Applied Mathematics I <i>or</i>	
higher MTH Elective.....	3
ENG 120 Technical Composition I <i>or</i>	
ENG 121 ENG 121 English Composition I .....	3

## Associate in Applied Science and Career Certificates

<b>Second Semester (Spring)</b> .....	<b>17</b>
HCM 172 Patisserie II .....	5
HCM 212 Menu Marketing and Management .....	3
HCM 213 Purchasing and Inventory Control.....	3
HCM 214 Hospitality Supervision .....	3
Baking and Pastry Elective (see list).....	3
<b>Third Semester (Fall)</b> .....	<b>18</b>
HCM 173 Patisserie III.....	5
HCM 175 Nutrition .....	3
Baking and Pastry Elective (see list).....	4
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 122 Business and Professional Speaking <i>or</i>	
CMM 123 Dynamics of Small Group Discussion <i>or</i>	
CMM 128 Interviewing Practices .....	3
Humanities or Fine Arts Elective* .....	3
<b>Fourth Semester (Spring)</b> .....	<b>15</b>
HCM 174 Advanced Pastry .....	5
HCM 273 Controlling Hospitality Costs .....	3
Baking and Pastry Elective (see list).....	4
PSY 122 Industrial/Organizational Psychology .....	3
<b>Total Hours for A.A.S. Degree</b> .....	<b>65</b>

### Baking and Pastry Electives:

Select at least 11 credit hours

HCM 176 Yeast Breads .....	3
HCM 177 Advanced Yeast Breads .....	3
HCM 178 Special Diets and Healthful Baking .....	4
HCM 179 Cake Decorating .....	4
HCM 272 Culinary and Hospitality Internship .....	3

### Professional Cook (Certificate) Plan 22FD

This program prepares students for entry-level employment in the food service industry. Courses provide an introduction to the hospitality industry and emphasize hands-on cooking techniques, sanitation and safety. Students learn to use recipes and equipment in a commercial kitchen to prepare stocks, sauces, soups, vegetables, starches, salads, and salad dressings. Students earn the ServSafe Foodservice Sanitation license as a part of this certificate.

<b>First Semester</b> .....	<b>9</b>
HCM 110 Introduction to Hospitality Industry .....	3
HCM 111 Culinary Principles I .....	5
HCM 113 ServSafe: Food Service Sanitation .....	1
<b>Second Semester</b> .....	<b>8</b>
HCM 112 Culinary Principles II .....	5
HCM 214 Hospitality Supervision .....	3
<b>Total Hours for Certificate</b> .....	<b>17</b>

Gainful Employment Information: [www.clcillinois.edu/gehcm](http://www.clcillinois.edu/gehcm)

### Professional Chef (Certificate) Plan 22FH

This program builds upon the Professional Cook Certificate and provides students with advanced level culinary skills. Students learn advanced cooking techniques for meat, poultry, seafood and breakfast cookery as well as basic baking techniques. Courses emphasize nutrition, sanitation and safety, and purchasing and inventory management. Students who complete this certificate meet the American Culinary Federation (ACF) initial certification and re-certification requirements for the Sanitation, Nutrition and Supervision courses in the ACF Chefs Certification program.

<b>First Semester</b> .....	<b>14</b>
HCM 110 Introduction to Hospitality Industry .....	3
HCM 111 Culinary Principles I .....	5
HCM 113 ServSafe: Food Service Sanitation .....	1
HCM 170 Patissiere I .....	5
<b>Second Semester</b> .....	<b>11</b>
HCM 112 Culinary Principles II .....	5
HCM 175 Nutrition .....	3
HCM 213 Purchasing and Inventory Control.....	3

<b>Third Semester</b> .....	<b>8</b>
HCM 171 Culinary Principles III.....	5
HCM 214 Hospitality Supervision .....	3

**Total Hours for Certificate**.....**33**

Gainful Employment Information: [www.clcillinois.edu/gehcm](http://www.clcillinois.edu/gehcm)

### Baking and Pastry Assistant (Certificate) Plan 22FJ

This program prepares students for entry-level employment in bakeshop operations in the food service industry, including bakeries, restaurants, hotels, country clubs, retail stores, catering, institutional foodservice and commercial foodservice operations. The program provides students with an understanding of the varied career choices in the hospitality industry. Students gain a basic level of baking and pastry skills and competence in food safety and sanitation practices. Students learn how to use recipes and prepare a variety of breads and pastries including quick breads, yeast breads, pies, pastries, tarts, custards, mousses, and cakes, as well as plate presentation. Students earn the ServSafe Foodservice Sanitation license as a part of this certificate.

<b>First Semester</b> .....	<b>9</b>
HCM 110 Introduction to the Hospitality Industry .....	3
HCM 113 ServSafe: Food Service Sanitation .....	1
HCM 170 Patisserie I .....	5
<b>Second Semester</b> .....	<b>8</b>
HCM 172 Patisserie II .....	5
HCM 214 Hospitality Supervision .....	3

**Total Hours for Certificate**.....**17**

Gainful Employment Information: [www.clcillinois.edu/gehcm](http://www.clcillinois.edu/gehcm)

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### Pastry Chef Assistant (Certificate) Plan 22FL

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This certificate builds on the Baking and Pastry Assistant certificate and provides students with advanced level baking and pastry skills to prepare students for advanced career opportunities in the pastry industry. Students can acquire skills including advanced and artisan bread making, European tortes and pastries, advanced pastries, confectionery, chocolate work, frozen desserts, specialized diets and healthful baking.

#### First Semester .....9

HCM 110	Introduction to the Hospitality Industry	.....3
HCM 113	ServSafe: Food Service Sanitation	.....1
HCM 170	Patisserie I	.....5

#### Second Semester .....11

HCM 172	Patisserie II	.....5
HCM 214	Hospitality Supervision	.....3
	Baking and Pastry Elective (see list)	.....3

#### Third Semester .....11-12

HCM 173	Patisserie III	.....5
	Baking and Pastry Elective (see list)	.....3-4
	Baking and Pastry Elective (see list)	.....3

#### Total Hours for Certificate.....31

#### Baking and Pastry Electives:

Select at least 9 credit hours

HCM 176	Yeast Breads	.....3
HCM 177	Advanced Yeast Breads	.....3
HCM 178	Special Diets and Healthful Baking	.....4
HCM 179	Cake Decorating	.....4
HCM 272	Culinary and Hospitality Internship	.....3

Gainful Employment Information: [www.clcillinois.edu/gehcm](http://www.clcillinois.edu/gehcm)

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### Hospitality Supervisor (Certificate) Plan 22FG

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This program prepares students for entry-level supervisory positions in restaurants, hotels, country clubs, catering, institutional foodservice and commercial foodservice operations. The program provides students with an understanding of the varied career choices in the hospitality industry. Students gain a basic level of cooking skills, and competence in food safety and sanitation practices. Students learn basic supervisory techniques, purchasing, and inventory control. As a part of this certificate, students earn the ServSafe Foodservice Sanitation license and the National Restaurant Association Educational Foundation (NRAEF) ManageFirst certificates for the Introduction to the Hospitality Industry course, Hospitality Supervision course, and Purchasing and Inventory Control course.

#### First Semester .....9

HCM 110	Introduction to Hospitality Industry	.....3
HCM 111	Culinary Principles I	.....5
HCM 113	ServSafe: Food Service Sanitation	.....1

#### Second Semester .....9

HCM 175	Nutrition	.....3
HCM 213	Purchasing and Inventory Control	.....3
HCM 214	Hospitality Supervision	.....3

#### Total Hours for Certificate.....18

Gainful Employment Information: [www.clcillinois.edu/gehcm](http://www.clcillinois.edu/gehcm)

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### Hospitality Manager (Certificate) Plan 22FI

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This program builds upon the Hospitality Supervisor Certificate and prepares students for advanced level employment as a member of a management team in the hospitality industry. This certificate emphasizes the development and application of managerial and leadership skills. Students acquire skills in menu design, cost control, and continuous improvement. Upon completion of this certificate students will meet the American Culinary Federation (ACF) initial certification and re-certification requirements for the Sanitation, Nutrition, and Supervision courses for the ACF Chefs Certification program.

Additionally, students will receive National Restaurant Association Educational Foundation (NRAEF) ManageFirst certificates for the Menu Marketing and Management course, Hospitality Supervision course and Cost Control course. Completion of this certificate will qualify the student to apply for the NRAEF ManageFirst Diploma, which is a nationally recognized industry credential.

#### First Semester .....9

HCM 110	Introduction to Hospitality Industry	.....3
HCM 111	Culinary Principles I	.....5
HCM 113	ServSafe: Food Service Sanitation	.....1

#### Second Semester .....14

HCM 112	Culinary Principles II	.....5
HCM 212	Menu Marketing and Management	.....3
HCM 213	Purchasing and Inventory Control	.....3
HCM 214	Hospitality Supervision	.....3

#### Third Semester .....12

HCM 175	Nutrition	.....3
HCM 271	Hospitality Leadership	.....3
HCM 273	Controlling Hospitality Costs	.....3
HCM 272	Culinary and Hospitality Internship <i>or</i>	
HCM 299	Selected Topics in Hospitality	.....3

#### Total Hours for Certificate.....35

Gainful Employment Information: [www.clcillinois.edu/gehcm](http://www.clcillinois.edu/gehcm)

For more information on recommended courses or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047:

Teresa Novinska / William Vena / Rob Wygant

## Human Services Program

**Business and Social Sciences Division,  
Room T302, (847) 543-2047**

This program prepares students for entry and middle-level positions in agencies and programs specialized in helping people. This includes organizations with programs for children, adolescents, and adults provided through hospitals, nursing homes, institutions for the developmentally disabled, community human services programs, as well as treatment programs for addiction and substance abuse. The degree-seeking student completes general education and Human Services core courses, plus one of the five options. All students are encouraged to consult with department faculty. Human Services courses may transfer to four-year institutions with related programs.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

### Children and Adolescents (Associate in Applied Science) Plan 25HB

<b>First Semester</b> .....	<b>15</b>
ENG 121 English Composition I.....	3
MTH 140 Contemporary Mathematics <i>or</i> .....	
Higher Math Elective * <i>or</i>	
Science Elective* .....	3
PSY 121 Introduction to Psychology .....	3
SWK 121 Introduction to Social Work .....	3
HUS 140 Drugs and Society .....	3
<b>Second Semester</b> .....	<b>14</b>
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices .....	3
PSY 222 Child Growth and Development .....	3
HUS 123 Introduction to Group Dynamics.....	3
HUS 128 Introduction to Counseling Skills .....	3
HUS 154 Ethics in Human Services .....	1
HUS 274 Human Services Practicum Orientation .....	1

<b>Third Semester</b> .....	<b>16</b>
HUS 121 Health and Nutrition .....	3
PSY 226 Adolescent Development .....	3
HUS 170 Human Services Practicum I.....	4
HUS 234 Child Maltreatment .....	3
Concentration/Elective # .....	3

<b>Fourth Semester</b> .....	<b>16</b>
HUS 171 Human Services Practicum II .....	4
ECE 223 Child, Family, and Community <i>or</i>	
EDU 222 The Exceptional Child.....	3
SOC 224 Sociology of the Family .....	3
Humanities or Fine Arts Elective * .....	3
Concentration/Elective # .....	3

**Total Hours for A.A.S. Degree** .....**61**

# A minimum of 6 credit hours of Concentration/Elective are required to fulfill this requirement.

### Children and Adolescents Concentration/Electives

CRJ 121 Introduction to Criminal Justice .....	3
CRJ 224 Institutional Corrections .....	3
CRJ 227 Community-Based Corrections .....	3
CRJ 229 Juvenile Delinquency .....	3
CRJ 230 Principles of Courtroom Testimony .....	3
ECE 141 Health, Safety and Nutrition .....	3
ECE 214 Group Care of Infants and Toddlers .....	3
EDU 299 Special Topics in Education.....	1-3
HUS 114 Human Services Supervision.....	3
HUS 132 Trauma, Violence, and Prevention .....	3
HUS 152 Process Addictions/Impulse Disorders .....	2
HUS 153 Diverse and Multicultural Populations .....	2
HUS 155 Pharmacology for Human Services.....	2
HUS 210 Principles of Residential Care.....	3
HUS 213 Mental Retardation .....	3
HUS 253 Advanced Addictions Counseling Skills.....	3
HUS 299 Special Topics in Human Services.....	1-3
PSY 223 Abnormal Psychology <i>or</i>	
SOC 223 Deviance .....	3
SWK 228 Human Sexuality .....	3

**Adult Services**

**(Associate in Applied Science) Plan 25HC**

<b>First Semester</b> .....	<b>15</b>
ENG 121 English Composition I.....	3
MTH 141 Quantitative Literacy <i>or</i> Math Elective * (MTH 140 or higher) <i>or</i> Science Elective* .....	3
PSY 121 Introduction to Psychology .....	3
SWK 121+ Introduction to Social Work .....	3
HUS 140 Drugs and Society .....	3
<b>Second Semester</b> .....	<b>17</b>
CMM 111+ Communication Skills <i>or</i> CMM 121+ Fundamentals of Speech <i>or</i> CMM 128+ Interviewing Practices .....	3
HUS 123 Introduction to Group Dynamics.....	3
HUS 128 Introduction to Counseling Skills .....	3
HUS 274 Human Services Practicum Orientation .....	1
SOC 121 Introduction to Sociology .....	3
HUS 154 Ethics in Human Services .....	1
Humanities or Fine Arts Elective +.....	3
<b>Third Semester</b> .....	<b>16</b>
HUS 170 Human Services Practicum I.....	4
HUS 121 Health and Nutrition .....	3
Concentration/Elective # .....	3
Select 2 of the following 3 classes:.....	6
HUS 231 Adult Development and Aging PSY 220 Lifespan Development PSY 226 Adolescent Development	
<b>Fourth Semester</b> .....	<b>16</b>
HUS 171 Human Services Practicum II .....	4
PSY 223 Abnormal Psychology <i>or</i> SOC 223 Deviance .....	3
SOC 224 Sociology of the Family .....	3
Concentration/Elective # .....	6
<b>Total Hours for A.A.S. Degree</b> .....	<b>64</b>

**Adult Services Concentration/Electives**

CRJ 121 Introduction to Criminal Justice .....	3
CRJ 124 Introduction to Corrections .....	3
CRJ 224 Institutional Corrections .....	3
CRJ 227 Community-Based Corrections .....	3
CRJ 230 Principles of Courtroom Testimony .....	3
HUS 114 Human Services Supervision.....	3
HUS 116 Principles of Foster Care.....	1
HUS 132 Trauma, Violence, and Prevention .....	3
HUS 134 Gender-based Violence .....	4
HUS 152 Process Addictions/Impulse Disorders .....	2
HUS 153 Diverse and Multicultural Populations .....	2
HUS 154 Ethics in Human Services .....	1
HUS 155 Pharmacology for Human Services.....	2
HUS 157 Communicable Diseases and Substance Abuse .....	2
HUS 210 Principles of Residential Care .....	3
HUS 213 Mental Retardation .....	3
HUS 234 Child Maltreatment .....	3
HUS 299 Special Topics in Human Services.....	1-3
PRS 111 Survey of Rehabilitation Skills .....	3
PRS 112 Psychiatric Rehabilitation Skills .....	3
SWK 228 Human Sexuality .....	3

# A minimum of 10 credit hours of Concentration/Elective are required to fulfill this requirement.

+ Completing coursework during the summer session(s) may enable students to complete the program earlier or reduce the course load during fall and spring semesters.

## Associate in Applied Science and Career Certificates

### Addiction Counseling and Treatment (Associate in Applied Science) Plan 25HD

CLC has achieved national accreditation by the National Addiction Studies Accreditation Commission (NASAC) and is commended for excellence in the preparation of the 21st Century Addictions Professional Workforce. The Human Services Addiction Counseling and Treatment Program (ACT) is accredited by the Illinois Alcohol and other Drug Abuse Professional Certification Agency (IAODAPCA) as both an Advanced and Preparatory Training Program.

This is an Illinois Alcohol and Other Drug Abuse Certification Agency (IAODAPCA) accredited Advanced Addiction Training Program. Upon completion, students are qualified to take the CADC exam to become an Illinois Certified Alcohol/Drug Counselor. No additional work experience is necessary.

In order to take advanced courses, students must apply for admittance in the program, which may include background checks, drug screens, and/or interviews. Upon application to the Addiction Counseling and Treatment (ACT) option, students should have no history of alcohol or other drug abuse, any addiction or other addictive disorders, or should be in recovery without relapse and out of treatment for at least 18 months.

<b>First Semester</b> .....	<b>15</b>
ENG 121 English Composition I.....	3
PSY 121 Introduction to Psychology .....	3
HUS 123 Introduction to Group Dynamics.....	3
HUS 128 Introduction to Counseling Skills .....	3
HUS 140 Drugs and Society .....	3
<b>Second Semester</b> .....	<b>15</b>
CMM 111+ Communication Skills <i>or</i>	
CMM 121+ Fundamentals of Speech <i>or</i>	
CMM 128+ Interviewing Practices .....	3
MTH 140 Contemporary Mathematics <i>or</i>	
Higher Level Mathematics <i>or</i>	
Science Elective* .....	3
HUS 151 Addiction Counseling and Treatment I .....	3
HUS 154 Ethics in Human Services .....	1
HUS 155 Pharmacology for Human Services.....	2
SWK 121+ Introduction to Social Work .....	3

<b>Third Semester</b> .....	<b>15</b>
SOC 121+ Introduction to Sociology .....	3
HUS 152 Process Addictions and Impulse Disorders .....	2
HUS 153 Diverse and Multicultural Populations .....	2
HUS 251 Addiction Counseling and Treatment II .....	4
HUS 253 Advanced Addiction Counseling Skills.....	3
HUS 274 Human Services Practicum Orientation .....	1
<b>Fourth Semester</b> .....	<b>15</b>
HUS 121 Health and Nutrition .....	3
Humanities or Fine Arts Elective+ .....	3
HUS 157 Communicable Diseases	
and Substance Abuse .....	2
HUS 275 Addiction Counseling Practicum I .....	4
Select 1 of the following 3 classes+:	3
HUS 231 Adult Development and Aging	
PSY 220 Lifespan Development	
PSY 226 Adolescent Development	
<b>Fifth Semester</b> .....	<b>8</b>
HUS 276 Addiction Counseling Practicum II.....	4
SWK 228 Human Sexuality <i>or</i>	
HUS 132 Trauma, Violence, and Prevention .....	3
HUS 299 Special Topics in Human Services .....	1
<b>Total Hours for A.A.S. Degree</b> .....	<b>68</b>

+ Completing coursework during the summer session(s) may enable students to complete the program earlier or reduce the course load during fall and spring semesters.

This academic plan is designed for a fulltime student. Students opting to attend part time should consult with the HUS Faculty directly for a revised academic plan.

**Addiction Counseling and Treatment  
(Certificate) Plan 25HG**

CLC has achieved national accreditation by the National Addiction Studies Accreditation Commission (NASAC) and is commended for excellence in the preparation of the 21st Century Addictions Professional Workforce. The Human Services Addiction Counseling and Treatment Program (ACT) is accredited by the Illinois Alcohol and other Drug Abuse Professional Certification Agency (IAODAPCA) as both an Advanced and Preparatory Training Program.

This is an Illinois Alcohol and Other Drug Abuse Certification Agency (IAODAPCA) accredited Advanced Addiction Training Program. Upon completion, students are qualified to take the CADC exam to become an Illinois Certified Alcohol/Drug Counselor. No additional work experience is necessary.

According to IAODAPCA regulations, students who wish to earn their CADC through the Advanced Program must possess a minimum of an associate’s degree in Human Services or Behavioral Science from an accredited institution of higher education. Students who do not meet this requirement should complete the A.A.S. in Addiction Counseling and Treatment, Plan 25HD.

In order to be admitted to this option, student must first meet with department faculty. Up to 18 credit hours of prerequisite courses may be transferred from another institution with the permission of the Human Services department chair, upon submission and review of transcripts indicating successful completion. Students needing to meet these prerequisites may take them concurrently with the courses required for the certificate.

In order to take advanced courses, students must apply for admittance in the program, which may include background checks, drug screens, and/or interviews. Upon application to the Addiction Counseling and Treatment (ACT) option, students should have no history of alcohol or other drug abuse, any addiction or other addictive disorders, or should be in recovery without relapse and out of treatment for at least 18 months

**Required Prerequisite Coursework**

HUS	121	Health and Nutrition.....	3
HUS	123	Introduction to Group Dynamics .....	3
HUS	128	Introduction to Counseling Skills .....	3
HUS	140	Drugs and Society .....	3

Select 3 hours from the following courses:

HUS	231	Adult Development and Aging.....	3
PSY	220	Lifespan Development .....	3
PSY	226	Adolescent Development .....	3

**Addiction Counseling and Treatment**

HUS	151	Addiction Counseling and Treatment I .....	3
HUS	152	Process Addictions/Impulse Disorders.....	2
HUS	153	Diverse/Multicultural Populations .....	2
HUS	154	Ethics in Human Services .....	1
HUS	155	Pharmacology for Human Services .....	2
HUS	157	Communicable Disease/Substance Abuse ....	2
HUS	251	Addiction Counseling and Treatment II.....	4
HUS	253	Adv Addictions Counseling Skills .....	3
HUS	274	Human Services Practicum Orientation.....	1
HUS	275	Addiction Counseling Practicum I.....	4
HUS	276	Addiction Counseling Practicum II .....	4

Select 3 hours from the following courses:

HUS	132	Trauma Violence and Prevention .....	3
HUS	299	Special Topics in Human Services .....	1-3
SWK	121	Introduction to Social Work .....	3
SWK	228	Human Sexuality .....	3

**Total Hours for Certificate .....31**

Gainful Employment Information: [www.clcillinois.edu/gehus](http://www.clcillinois.edu/gehus)

## Associate in Applied Science and Career Certificates

### Correctional Counseling

#### (Associate in Applied Science) Plan 25HK

<b>First Semester</b>	<b>15</b>
ENG 121 English Composition I	3
MTH 141 Quantitative Literacy <i>or</i> Math Elective * (MTH 140 or higher) <i>or</i> Science Elective*	3
PSY 121 Introduction to Psychology	3
HUS 121 Health and Nutrition	3
SWK 121 Introduction to Social Work	3
<b>Second Semester</b>	<b>16</b>
CMM 111+ Communication Skills <i>or</i> CMM 121+ Fundamentals of Speech <i>or</i> CMM 128+ Interviewing Practices	3
CRJ 121 Introduction to Criminal Justice	3
HUS 123 Introduction to Group Dynamics	3
HUS 128 Introduction to Counseling Skills	3
HUS 140 Drugs and Society	3
HUS 154 Ethics in Human Services (elective)	1
<b>Third Semester</b>	<b>16</b>
SOC 121 Introduction to Sociology	3
CRJ 227 Community-Based Corrections	3
HUS 274 Human Services Practicum Orientation	1
HUS 231 Adult Development and Aging <i>or</i> PSY 226 Adolescent Development	3
HUS 253 Advanced Addiction Counseling Skills Concentration/Elective	3
<b>Fourth Semester</b>	<b>13</b>
HUS 219 Human Services Internship	4
CRJ 214 Substance Abuse and Criminal Justice Concentration/Elective Humanities or Fine Arts Elective*	3
<b>Total Hours for A.A.S. Degree</b>	<b>60</b>

### Correctional Counseling Concentration/Electives

CRJ 119 Principles of Direct Supervision	3
CRJ 123 Introduction to Criminology	3
CRJ 124 Introduction to Corrections	3
CRJ 221 Criminal Law	3
CRJ 224 Institutional Corrections	3
CRJ 229 Juvenile Delinquency	3
CRJ 230 Principles of Courtroom Testimony	3
HUS 114 Human Services Supervision	3
HUS 134 Gender-based Violence	4
HUS 152 Process Addictions/Impulse Disorders	2
HUS 154 Ethics in Human Services	1
HUS 157 Communicable Diseases and Substance Abuse	2
HUS 210 Principles of Residential Care	3
HUS 234 Child Maltreatment	3
HUS 299 Special Topics in Human Services	1-3
PSC 122 State and Local Politics	3
PSY 223+ Abnormal Psychology <i>or</i> SOC 223 +Deviance	3

+ Recommended Course (either PSY 223 or SOC 223)

++ Students pursuing IAODAPCA's Certified Criminal Justice Addictions Professional Credential must take HUS 151, HUS 251, HUS 253 and a CRJ course in addition to earning the A.A.S. in Correctional Counseling. Please note: there may be additional requirements by IAODAPCA to obtain this credential.

See addendum for corrections to this section.

**Correctional Counseling  
(Certificate) Plan 25HJ**

**Required Human Services Coursework .....9**

HUS 123	Introduction to Group Dynamics	.....3
HUS 128	Introduction to Counseling Skills	.....3
HUS 140	Drugs and Society	.....3

**Required Correctional Counseling Coursework.....24-25**

CRJ 227	Community-Based Corrections	.....3
CRJ 121	Introduction to Criminal Justice	.....3
CRJ 214	Substance Abuse and Criminal Justice	.....3
++CRJ 270	Criminal Justice Assessment Seminar <i>or</i>	
* HUS 219	Human Services Internship	.....3-4
HUS 253	Advanced Addiction Counseling Skills	.....3
	Correctional Counseling Electives (see below)	.....9

\* Note: HUS 274 Human Services Practicum Orientation is a prerequisite for HUS 219.

**Total Hours for Certificate .....33-34**

**Correctional Counseling Electives**

Select 9 hours from the list below:

CRJ 119	Principles of Direct Supervision	.....3
CRJ 123	Introduction to Criminology	.....3
CRJ 124	Introduction to Corrections	.....3
CRJ 221	Criminal Law	.....3
CRJ 224	Institutional Corrections	.....3
CRJ 229	Juvenile Delinquency	.....3
CRJ 230	Principles of Courtroom Testimony	.....3
CRJ 270	Criminal Justice Assessment	.....3
HUS 114	Human Services Supervision	.....3
HUS 152	Process Addictions/Impulse Disorders	.....2
HUS 154	Ethics in Human Services	.....1
HUS 157	Communicable Diseases and Substance Abuse	.....2
HUS 210	Principles of Residential Care	.....3
HUS 234	Child Maltreatment	.....3
HUS 251	Addiction Counseling and Treatment II	.....4
HUS 253	Advanced Addiction Counseling Skills	.....3
HUS 274	Human Services Practicum Orientation	.....1
HUS 299	Special Topics in Human Services	.....1-3
PSC 122	State and Local Politics	.....3
PSY 223+	Abnormal Psychology <i>or</i>	
SOC 223 +	Deviance	.....3

++ Students pursuing the Certified Criminal Justice Addictions Professional credential must take HUS 151, HUS 251, HUS 253 and CRJ 270. Note: there may be additional requirements by IAODAPCA to obtain this credential.

Gainful Employment Information: [www.clcillinois.edu/gehus](http://www.clcillinois.edu/gehus)

**General Human Services  
(Certificate) Plan 25HF**

The certificate program is intended for students who already hold professional degrees or have taken extensive course work in other academic fields. Students are strongly encouraged to consult with a department advisor prior to beginning this certificate. The certificate provides the additional study that is often required when there has been a career change.

HUS 123	Introduction to Group Dynamics	.....3
HUS 128	Introduction to Counseling Skills	.....3
HUS 140	Drugs and Society	.....3
* HUS 170	Human Services Practicum I	.....4
HUS 231	Adult Development and Aging <i>or</i>	
PSY 222	Child Growth and Development <i>or</i>	
PSY 226	Adolescent Development	.....3
PSY 121	Introduction to Psychology	.....3
SOC 224	Sociology of the Family	.....3
SWK 121	Introduction to Social Work <i>or</i>	
SWK 228	Human Sexuality	.....3
	Electives (see list below)	.....6

**Total Hours for Certificate .....31**

\* Note: HUS 274 Human Services Practicum Orientation is a prerequisite for HUS 170.

**Electives**

A minimum of 6 additional hours must be selected from one of two Human Services Program Options: Children and Adolescents or Adult Services. Substitutions may be made with department chair or division approval.

Gainful Employment Information: [www.clcillinois.edu/gehus](http://www.clcillinois.edu/gehus)

## Associate in Applied Science and Career Certificates

### Trauma Interventions and Prevention (Associate in Applied Science) Plan 25HL

This program is designed for students who are interested in gaining general knowledge and skills to work with people who have been victims of trauma or violence. Content areas include: Crisis intervention, emergency management, culture of violence, assessment, counseling, etc. The students will gain skills and knowledge to work in entry-level positions in the human services fields including Substance Abuse, Child Care Resource and Referral, Domestic Violence, Homeless Programs, Sexual Violence programs, Corrections, etc.

<b>First Semester</b> .....	<b>15</b>
ENG 121 English Composition I.....	3
MTH 140 Contemporary Mathematics <i>or</i> Higher Math Elective * <i>or</i> Science Elective* .....	3
PSY 121 Introduction to Psychology .....	3
HUS 132 Trauma, Violence and Prevention .....	3
SWK 121 Introduction to Social Work .....	3
<b>Second Semester</b> .....	<b>16</b>
CMM 111 Communication Skills <i>or</i> CMM 121 Fundamentals of Speech <i>or</i> CMM 128 Interviewing Practices .....	3
HUS 231 Adult Development and Aging <i>or</i> PSY 220 Lifespan Development <i>or</i> PSY 222 Child Growth and Development <i>or</i> PSY 226 Adolescent Development .....	3
HUS 123 Introduction to Group Dynamics.....	3
HUS 128 Introduction to Counseling Skills .....	3
HUS 154 Ethics in Human Services .....	1
HUS 232 Trauma Interventions.....	3
<b>Third Semester</b> .....	<b>17</b>
HUS 134 Gender-based Violence .....	4
HUS 140 Drugs and Society .....	3
HUS 234 Child Maltreatment .....	3
HUS 236 Crisis Intervention .....	3
HUS 274 Human Services Practicum Orientation .....	1
Humanities or Fine Arts Elective* .....	3
<b>Fourth Semester</b> .....	<b>14</b>
HUS 121 Health and Nutrition .....	3
HUS 219 Human Services Internship .....	4
Concentration/Elective# .....	7
<b>Total Hours for A.A.S. Degree</b> .....	<b>62</b>

### Concentration/Electives

Select 7 hours from the list below:

CRJ 119 Principles of Direct Supervision .....	3
CRJ 123 Introduction to Criminology .....	3
CRJ 124 Introduction to Corrections .....	3
CRJ 224 Institutional Corrections .....	3
CRJ 227 Community-Based Corrections .....	3
CRJ 229 Juvenile Delinquency .....	3
CRJ 230 Principles of Courtroom Testimony .....	3
HUS 114 Human Services Supervision.....	3
HUS 152 Process Addictions/Impulse Disorders .....	2
HUS 157 Communicable Diseases and Substance Abuse .....	2
HUS 210 Principles of Residential Care .....	3
HUS 251 Addiction Counseling and Treatment II .....	4
HUS 253 Advanced Addiction Counseling Skills.....	3
HUS 299 Special Topics in Human Services.....	1-3
PSC 122 State and Local Politics .....	3
PSY 223+ Abnormal Psychology <i>or</i> SOC 223 +Deviance .....	3

### Trauma Interventions and Prevention (Certificate) Plan 25HM

This program is designed for students who have a Bachelors or Masters degree in Human Services, Social Work, Counseling, or an approved related field and are interested in gaining specialized knowledge and skills to work with survivors of various traumas including war, violence, natural and man-made disasters, interpersonal violence, abuse, accidents, and personal/family crises. The students will gain skills and knowledge to enhance their previous education and enable employment in the human services fields such as Substance Use/Addictions, Child Care Resources and Referral, Domestic Violence, Homeless Programs, Sexual Violence programs, Corrections, etc. Students with less than a Bachelors Degree are encouraged to complete the AAS Degree in Trauma Interventions and Prevention, Plan 25HL. The Prerequisite Coursework may be waived by the Department Chair for students with a Masters Degree in an approved program.

### Required Prerequisite Coursework

HUS 121 Health and Nutrition .....	3
HUS 123 Introduction to Group Dynamics.....	3
HUS 128 Introduction to Counseling Skills .....	3
HUS 140 Drugs and Society .....	3
HUS 231 Adult Development and Aging <i>or</i> PSY 220 Lifespan Development <i>or</i> PSY 222 Child Growth and Development <i>or</i> PSY 226 Adolescent Development.....	3

**Required Trauma Interventions and Prevention Coursework**

HUS 132	Trauma, Violence and Prevention .....	3
HUS 134	Gender-Based Violence .....	4
HUS 154	Ethics in Human Services .....	1
HUS 219	Internship .....	4
HUS 232	Trauma Interventions.....	3
HUS 234	Child Maltreatment .....	3
HUS 236	Crisis Intervention .....	3

**Select 5 hours from the list below (Must be taken at CLC)**

HUS 114	Human Services Supervision.....	3
HUS 151	Addiction Counseling and Treatment I .....	3
HUS 152	Process Addictions/Impulse Disorders .....	2
HUS 157	Communicable Disease/Substance Abuse.....	2
HUS 234	Child Maltreatment .....	3
HUS 251	Addiction Counseling and Treatment II .....	4
HUS 299	Special Topics in Human Services.....	1-3
SWK 228	Human Sexuality .....	3
CRJ 123	Introduction to Criminology .....	3
CRJ 124	Introduction to Corrections .....	3
CRJ 224	Institutional Corrections .....	3
CRJ 227	Community-Based Corrections .....	3
CRJ 229	Juvenile Delinquency .....	3
CRJ 230	Principles of Courtroom Testimony .....	3
EDM 111	Intro to Emergency Management .....	3
EDM 211	Emergency and Disaster Response .....	3
PSC 122	State and Local Politics.....	3
PSY 223	Abnormal Psychology 3 <i>or</i>	
SOC 223	Deviance .....	3
HUS 274	Human Services Practicum Orientation .....	1

**Total Hours for Certificate .....26**

Gainful Employment Information: [www.clcillinois.edu/gehus](http://www.clcillinois.edu/gehus)

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**Accelerated Addictions Counseling and Treatment (Certificate) Plan 25HN**

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CLC has achieved national accreditation by the National Addiction Studies Accreditation Commission (NASAC) and is commended for excellence in the preparation of the 21st Century Addictions Professional Workforce. The Human Services Addiction Counseling and Treatment Program (ACT) is accredited by the Illinois Alcohol and Other Drug Abuse Professional Certification Agency (IAODAPCA) as both an Advanced and Preparatory Training Program.

This program is an accelerated track of the Addiction Counseling and Treatment program for individuals who have completed or are currently enrolled in a Master’s Degree from an accredited clinical graduate program in Social Work, Counseling, Clinical Psychology, Human Services, or other clinical counseling-related field of study. Upon completion of this advanced program and successfully passing the Certified Alcohol/Drug Counselor (CADC) Exam, the student will earn certification as a CADC from the Illinois Alcoholism and Other Drug Abuse Professional Certification Association (IAODAPCA). To be accepted into this program, students must have completed or be in the second-year of a master’s program, submit a transcript from an accredited clinical graduate program, complete a screening form and meet other requirements such as background checks, drug screens, and interviews with full-time faculty members in Human Services who will also verify course equivalencies. Upon application to this program option, students should have no history of alcohol or other substance use or addictive disorders, or should be in recovery without relapse and out of treatment or correctional supervision for at least 18 months.

**Required Coursework**

HUS 140	Drugs and Society .....	3
HUS 155	Pharmacology for Human Services.....	2
HUS 151	Addiction Counseling and Treatment I .....	3
HUS 251	Addiction Counseling and Treatment II .....	4
HUS 253	Advanced Addictions Counseling Skills .....	3
HUS 275	Addiction Counseling Practicum I .....	3
HUS 276	Addiction Counseling Practicum II .....	1- 4

**Total Hours for Certificate .....19-22**

Gainful Employment Information: [www.clcillinois.edu/gehus](http://www.clcillinois.edu/gehus)

For more information on recommended courses or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047:

Mick Cullen / Janet Mason

## Laser/Photonics/Optics

Engineering, Math and Physical Sciences Division  
Room T302, (847) 543-2044

### Optics and Photonics Technology (Associate in Applied Science) Plan 24LD

This program prepares graduates for employment in the growing field of photonics - including optics, lasers, fiber optics, and other electro-optical devices. Graduates are qualified for employment in positions such as lab technician, system installer, troubleshooting/repair technician, and marketing and sales representatives. Employers include companies in various industries that use photonics applications; such as manufacturing, aerospace, defense, entertainment, laser manufacturers, energy, medicine, automotive, lighting, and communications. The program includes industry recommended coursework, hands-on experience with state of the art equipment, and project work expected of entry level employees. This program prepares graduates for a successful career in this rapidly growing field.

#### Recommended first semester courses .....15-17

LPO	110	Intr to Lasers, Photonics and Optics	.....3
LPO	111	Fundamentals of Light and Lasers	.....4
EET	115	Electronic Laboratory Techniques	.....2
MTH	118	Technical Mathematics II <i>or</i>	
MTH	122	College Algebra or higher level Math (consult with an advisor)	.....3 - 5
ENG	121	English Composition I <i>or</i>	
ENG	120	Technical Composition I	.....3

#### Recommended second semester courses .....17-18

LPO	112	Elements of Photonics	.....3
LPO	113	Photonics-Enabled Technologies	.....3
PHY	121	General Physics I (or higher level Physics)	.....4 - 5
EET	170	DC Circuit Fundamentals	.....2
EET	174	AC Fundamentals	.....2
CMM	121	Fundamentals of Speech <i>or</i>	
CMM	122	Business/Professional Speaking <i>or</i>	
CMM	128	Interviewing Practices	.....3

#### Recommend third semester courses .....20-22

LPO	212	Elements of Photonics II	.....3
LPO	211	Geometric and Wave Optics	.....3
LPO	250	Laser and Electro-Optic Devices	.....3
LPO	290	LPO Capstone Proposal <i>or</i>	
EWE	220	Cooperative Work Experience I	.....1
EET	223	Introduction to Digital Electronics	.....4
HUM	127	Critical Thinking <i>or</i>	
PHI	125	Introduction to Ethics	.....3
		LPO Elective	.....3-5

#### Recommended fourth semester courses .....15-18

LPO	291	LPO Project or Research Capstone <i>or</i>	
EWE	270	Cooperative Work Experience II	.....3
LPO	145	Photonic CAD Applications <i>or</i>	
EET	216	Microprocessors I	.....3-4
EIT	116	Fiber Optic Fundamentals	.....3
ECO	110	Economics for Business and Industry	.....3
		LPO Elective	.....3-5

#### LPO Electives

Select from the following list towards LPO Electives:

LPO	134	Introduction to Biophotonics	.....4
BIO	123	Principles of Biology	.....4
BIO	161	General Biology I	.....4
CAD	170	Introduction to SolidWorks	.....3
ELC	171	Programmable Logic Controllers	.....3
ELC	271	Advanced Programmable Controls	.....3
MET	111	Manufacturing Processes	.....3
PHY	122	General Physics II	.....5
PHY	123	Physics for Science and Egr I	.....5
PHY	124	Physics for Science and Egr II	.....5
PHY	221	Physics for Science and Egr III	.....4

#### Total Hours for A.A.S. Degree .....67 – 75

### Laser/Photonics/Optics (Certificate) Plan 24LA

This certificate introduces students to photonics as an enabling technology and major tool. Students will be introduced to light and lasers, what lasers consist of, characteristics of light, what makes light both coherent and useful, and how it is used in various fields.

EET	115	Electronic Laboratory Techniques	.....2
EET	170	DC Circuit Fundamentals	.....2
EET	174	AC Fundamentals	.....2
LPO	111	Fundamentals of Light and Lasers	.....4
LPO	112	Elements of Photonics	.....3
LPO	113	Photonics-Enabled Technologies	.....3

#### Total Hours for Certificate .....16

Gainful Employment Information: [www.clcillinois.edu/gelpo](http://www.clcillinois.edu/gelpo)

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**Applied Lasers**  
(Certificate) Plan 24LC

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This certificate provides career oriented students training to enter the laser/photronics/optics support field. The skill sets involved in this certificate provide basic understanding of laser operation, safe handling of lasers and optics, manufacturing, applications, installation and maintenance.

LPO	111	Fundamentals of Light and Lasers .....	4
LPO	113	Photonics-Enabled Technologies .....	3
CAD	170	Introduction to SolidWorks .....	3
LPO	145	Photonic CAD Applications .....	3

**Total Hours for Certificate .....**13

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**Biophotonics**  
(Certificate) Plan 24LB

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This certificate introduces the basics of Photonics (Light) and photonic devices that accept light into an existing program. Light is an enabling technology that aids and is sometimes the foundation for a given industry. This certificate illustrates the interaction of light with a sample as an input to a device which allows a technician to discover a variety of phenomena related to a substance.

LPO	111	Fundamentals of Light and Lasers .....	4
LPO	112	Elements of Photonics .....	3
BIO	123	Principles of Biology <i>or</i>	
BIO	161	General Biology I .....	4
LPO	134	Introduction to Biophotonics .....	4

**Total Hours for Certificate .....**15

For more information on recommended courses or program specific advising, contact faculty member Steve Dulmes, William Kellerhals or the Engineering, Math and Physical Sciences division at (847) 543-2044.

## Machine Tool Trades

**Engineering, Math and Physical Sciences Division**  
**Room T302, (847) 543-2044**

This program prepares students for employment and advancement in the machine tool field. Machinists are skilled workers who are able to read and interpret blueprints, use common hand tools, set up and operate metal cutting machines, and use precision measuring instruments. Advanced placement in this program is possible for experienced machinists. Apprenticeship and N.I.M.S. national credentialing credit is also available. Machine tool courses are approved by the United States Department of Labor, Bureau of Apprenticeship Training and the N.I.M.S. national certified program.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

### Basic Machining – Phase I (Certificate) Plan 24MJ

<b>Required Phase I Coursework</b> .....	<b>15</b>
CNC 110 CNC Operations I.....	3
MTH 114 Applied Mathematics I.....	3
MTT 110 Machine Trades Blueprint Reading .....	3
MTT 111 Machine Shop I .....	3
MTT 210 Machine Shop II.....	3

**Total Hours for Certificate** .....15

### Machine Tool Trades – Phase II (Certificate) Plan 24SM

<b>Required Phase I Coursework (see above)</b> .....	<b>15</b>
<b>Required Phase II Coursework</b> .....	<b>21</b>
CNC 115 CNC Programming I <i>or</i>	
EWE 220 Cooperative Work Experience I.....	3
MET 111 Manufacturing Processes .....	3
MET 112 Basic Metallurgy I .....	3
MTH 115 Applied Mathematics II .....	3
MTT 113 Grinding Technology .....	3
MTT 212 Precision Machining/NIMS Credentialing....	3
WLD 170 General Welding.....	3

**Total Hours for Certificate** .....36

Gainful Employment Information: [www.clcillinois.edu/gemtt](http://www.clcillinois.edu/gemtt)

### Tool and Mold Maker – Phase III (Advanced) (Certificate) Plan 24SR

<b>Required Phase I and Phase II Coursework (see above)</b> .....	<b>36</b>
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<b>Required Phase III Coursework</b> .....	<b>15</b>
CNC 210 CNC Operations II <i>or</i>	
MTT 215 Diemaking II <i>or</i>	
MTT 216 Moldmaking II .....	3
CNC 217 Introduction to Wire EDM Machining.....	3
MTT 115 Introduction to Diemaking .....	3
MTT 116 Introduction to Moldmaking .....	3
MTT 211 Jig and Fixture Design .....	3

**Total Hours for Advanced Certificate** .....51

Gainful Employment Information: [www.clcillinois.edu/gemtt](http://www.clcillinois.edu/gemtt)

### Machine Tool Trades (Associate in Applied Science) Plan 24MD

Students interested in obtaining an A.A.S. Degree must complete all phases required for the Advanced Certificate, as well as the General Education requirements.

<b>Required General Education Coursework</b> .....	<b>15</b>
CMM 111 Communication Skills .....	3
ECO 110 Economics for Business and Industry .....	3
ENG 120 Technical Composition I <i>or</i>	
ENG 121 English Composition I .....	3
Social Sciences Elective* .....	3
Humanities or Fine Arts Elective* .....	3

<b>Required Machine Tool Trades Coursework</b> .....	<b>51</b>
<b>Phase I</b>	
CNC 110 CNC Operations I.....	3
MTH 114 Applied Mathematics I.....	3
MTT 110 Machine Trades Blueprint Reading .....	3
MTT 111 Machine Shop I .....	3
MTT 210 Machine Shop II.....	3

<b>Phase II</b>	
CNC 115 CNC Programming I <i>or</i>	
EWE 220 Cooperative Work Experience I.....	3
MET 111 Manufacturing Processes .....	3
MET 112 Basic Metallurgy I .....	3
MTH 115 Applied Mathematics II .....	3
MTT 113 Grinding Technology .....	3
MTT 212 Precision Machining/NIMS Credentialing....	3
WLD 170 General Welding.....	3

<b>Phase III</b>	
CNC 210 CNC Operations II <i>or</i>	
MTT 215 Diemaking II <i>or</i>	
MTT 216 Moldmaking II .....	3
CNC 217 Introduction to Wire EDM Machining.....	3
MTT 115 Introduction to Diemaking .....	3
MTT 116 Introduction to Moldmaking .....	3
MTT 211 Jig and Fixture Design .....	3

**Total Hours for A.A.S. Degree** .....66

For more information on recommended courses or program specific advising, contact faculty member Jeff Hines or the Engineering, Math and Physical Sciences division at (847) 543-2044.

## Massage Therapy

**Biological and Health Sciences Division, Room B213,  
(847) 543-2042**

This certificate program prepares students to achieve entry level competencies as massage therapists in sports clinics, salons, spas, hospitals, private practice, nursing homes, hospices, wellness centers, and other health care and recreational settings.

The Massage Therapy Certificate is designed to prepare an individual to become a licensed professional massage therapist. Successful completion of 3 prerequisite courses plus two semesters in the CLC massage therapy program meets the requirements to take the federal massage therapy licensing exam in Illinois, Wisconsin, as well as most other states. Massage therapy courses are taken concurrently and include lecture, lab, and clinical hours.

Students who are selected for the program are required to undergo a background check and a urine drug screen prior to beginning the program. The results of the background check and drug screen may result in the student losing their seat in the program. The costs are borne by the student.

An option to earn an A.A.S. in Health and Wellness Promotion is also available. Visit [www.clcillinois.edu/programs/mas](http://www.clcillinois.edu/programs/mas) for more details about the program.

Students must maintain a minimum grade of “C” in all MAS courses to continue in and graduate from the program. In addition, students must maintain a CLC gpa of 2.0 or higher to graduate. All courses comprise the Massage Therapy Program: individual courses may not be taken.

### Massage Therapy (Certificate) Plan 21MS

<b>Prerequisite Courses</b> .....	<b>7</b>
BIO 111 Human Form and Function .....	4
MAS 119 Introduction to Massage Therapy.....	1
PED 228 First Aid/CPR .....	2
<b>First Semester</b> .....	<b>14</b>
MAS 110 Massage Structure and Functions I .....	2
MAS 112 Kinesiology and Palpatio I.....	2
MAS 114 Massage: Communication and Business I ....	3
MAS 116 Clinical Skills and Special Populations .....	3
MAS 131 Massage Therapy I: Swedish .....	2
MAS 132 Massage Therapy II: Integrative .....	2

<b>Second Semester</b> .....	<b>12</b>
MAS 210 Massage Structure and Function II .....	2
MAS 212 Kinesiology and Palpatio II .....	2
MAS 214 Massage: Communication and Business II ..	3
MAS 233 Massage Therapy III: Rehabilitative .....	2
MAS 234 Massage Therapy IV: Advanced Tech.....	2
MAS 235 Therapeutic Massage Clinic .....	1

**Total Hours for Certificate** .....

#### Academic Program Entrance Requirements

The following entrance requirements are required of all students:

- 18 years of age or older
- High school graduate or earned GED
- College Reading and Writing Readiness
- Attend a CLC Massage Therapy information session
- A GPA of 2.0 or higher if student has a CLC GPA
- Must provide a CLC/Health Physical form completed by a professional healthcare provider
- Must pass a background check and urine drug screening.
- To continue in and graduate from the program, students must maintain a minimum grade of “C” in all coursework

#### Nonacademic Program Entrance Requirements

Because of the inherent requirements of the profession, the following minimum abilities or essential technical functions are expected of the student:

- Lifting, stretching, and standing over the course of one or two hours
- Use of a full range of motion of the joints, and the ability to perform fine motor movements with the hands
- Ability to perform repetitive tasks such as stooping, bending, twisting, reaching and occasionally kneeling and squatting
- Good physical health and the ability to safely give and receive massages without risk of physical injury; students should consult a doctor to determine whether giving or receiving massages might be harmful to their health in any way
- Ability to respond in an emotionally controlled, professional, and ethical manner at all times and in varied patient care and educational situations
- Major medical health insurance is recommended for the length of the program; student insurance information is available through the CLC Health Center
- Willingness to give massages to (and receive massages from) people of different ages, body types, genders, sexual orientations, and personalities
- Prospective students are strongly encouraged to receive at least one massage from a licensed massage therapist; they are also strongly encouraged to make an appointment at the CLC Student Massage Clinic (See [www.clcillinois.edu/programs/mas](http://www.clcillinois.edu/programs/mas) for details.)

Gainful Employment Information: [www.clcillinois.edu/gemas](http://www.clcillinois.edu/gemas)

For more information or program specific advising, contact the MAS department chair Joana Pabedinskas at (847) 543-2029 or the Biological and Health Sciences division at (847) 543-2042.

## Mechanical Engineering Technology

Engineering, Math and Physical Sciences Division  
Room T302, (847) 543-2044

### Mechanical Engineering Technology (Associate in Applied Science) Plan 24MB

Mechanical engineering technicians are the semi-professional members of the engineer/scientist/technician team engaged in the design of machines, mechanisms, and other mechanical systems. Assignments may include drafting, designing, research and development, product and materials testing, and supervision. In addition to a broad based background in mechanical design, this program offers training on an industrial CAD system.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

#### Required General Education Coursework .....15-17

CMM 111	Communication Skills <i>or</i>	
CMM 121	Fundamentals of Speech .....	3
ECO 221	Principles of Macroeconomics <i>or</i>	
PSY 121	Introduction to Psychology <i>or</i>	
PSY 122	Industrial/Organizational Psychology .....	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I.....	3
	Humanities or Fine Arts Elective .....	3
MTH 117	Technical Mathematics I <i>or</i>	
MTH 123	Trigonometry <i>or</i>	
MTH 144	Precalculus <i>or</i>	
MTH 145	Calculus and Analytic Geometry I.....	3-5

#### Additional Required Coursework.....14-15

CAD 170	Introduction to SolidWorks <i>or</i>	
CAD 176	Introduction to Creo .....	3
ELC 171	Programmable Logic Controllers <i>or</i> .....	3
ARM 171	Automation I <i>and</i> .....	1
ARM 172	Automation II <i>and</i> .....	1
ARM 173	Automation III.....	1
HET 111	HVACR Electricity I <i>or</i> .....	4
EET 170	DC Circuit Fundamentals <i>and</i> .....	2
EET 174	AC Fundamentals <i>or</i> .....	2
ARM 156	Electrical Systems I <i>and</i> .....	1
ARM 157	Electrical Systems II <i>and</i> .....	1
ARM 158	Electrical Systems III .....	1
PHY 121	General Physics I.....	5

#### Required Mechanical Engineering

#### Technology Coursework .....38-39

EGR 121	Engineering Design Graphics .....	3
EGR 115	Applied Statics for Technology <i>and</i> .....	3
EGR 215	Mechanics of Material for Technology <i>or</i> .....	3
EGR 216	Statics & Mechanics of Material for Technology .....	5
MET 115	Industrial Pneumatics Hydraulics <i>or</i> .....	3
ARM 191	Pneumatics and Hydraulics I <i>and</i> .....	1
ARM 192	Pneumatics and Hydraulics II <i>and</i> .....	1
ARM 193	Pneumatics and Hydraulics III .....	1
MET 131	Introduction to Robotics <i>or</i> .....	3
ARM 131	Robot Design and Construction I <i>and</i> .....	1
ARM 132	Robot Design and Construction II <i>and</i> .....	1
ARM 133	Robot Design and Construction III.....	1
MET 111	Manufacturing Processes .....	3
MET 212	Mechanisms .....	4
MET 214	Mechanical Design and Drafting.....	3
MET 215	Machine Design.....	5
MET 216	Applied Finite Element Analysis.....	3
MET 231	Mechatronics <i>or</i> .....	3
ARM 196	Electrical Systems Capstone <i>and</i> .....	1
ARM 197	Pneumatic and Hydraulic Systems Capstone <i>and</i> .....	1
ARM 198	Complete Systems Integration.....	1
MTT 111	Machine Shop I <i>or</i>	
MTT 112	Machining Principles.....	3

#### Total Hours for A.A.S. Degree .....67-71

\*\* Additional math may be required for students who choose to pursue a Bachelors degree in Mechanical Engineering Technology (BSMET). Contact faculty member Margie Porter at 847-543-2904 for additional information.

## Mechanical Engineering Technology

### Design I – IV Certificates

The following four certificates represent the four “rungs” of a career ladder in the Mechanical Engineering Technology design field. Each certificate represents specialty coursework that students must acquire as they move towards the MET degree.

#### MET I: Toolbox (Certificate) Plan 24MK

EGR 121	Engineering Graphics .....	3
MET 111	Manufacturing Processes .....	3
MTT 111	Machine Shop I <i>or</i>	
MTT 112	Machining Principles .....	3

#### Total Hours for Certificate .....9

**MET II Nuts and Bolts  
(Certificate) Plan 24ML**

CAD	170	Introduction to SolidWorks <b>or</b>	
CAD	176	Introduction to Creo .....	3
CNC	111	Geometric Dimensioning and Tolerancing ..	1
MET	214	Mechanical Design and Drafting .....	3

**Total Hours for Certificate .....7**

**MET III: Mechatronics  
(Certificate) Plan 24MM**

MET	115	Industrial Pneumatics and Hydraulics .....	3
MET	131	Introduction to Robotics.....	3
MET	231	Mechatronics .....	3

**Total Hours for Certificate .....9**

**MET IV: Design and Innovation  
(Certificate) Plan 24MN**

MET	212	Mechanisms .....	4
MET	215	Machine Design .....	5
MET	216	Applied Finite Element Analysis .....	3
EGR	115	Applied Statics for Technology <b>and</b>	
EGR	215	Mechanics of Materials for Technology <b>or</b>	
EGR	216	Statics and Mechanics of Materials for Technology.....	5-6

**Total Hours for Certificate .....17-18**

Gainful Employment Information: [www.clcillinois.edu/gemet](http://www.clcillinois.edu/gemet)

**Mechanical Service Technician I and II  
Certificates**

The following two certificates will prepare students for the installation, maintenance and repair of the mechanical and basic electrical aspects of industrial machinery in the mechanical service technician field.

**Mechanical Service Technician I  
(Certificate) Plan 24MO**

MET	111	Manufacturing Processes .....	3
MET	115	Industrial Pneumatics and Hydraulics .....	3
MET	116	Machine Components and Repair .....	3
MTT	110	Machine Trades Blueprint Reading .....	3
MTT	111	Machine Shop I .....	3
WLD	170	General Welding .....	2

**Total Hours for Certificate .....17**

Gainful Employment Information: [www.clcillinois.edu/gemet](http://www.clcillinois.edu/gemet)

**Mechanical Service Technician II  
(Certificate) Plan 24MP**

EET	115	Electronic Laboratory Techniques .....	2
EET	170	DC Circuit Fundamentals <b>and</b>	
EET	174	AC Fundamentals <b>or</b>	
HET	111	HVACR Electricity I .....	4
MET	117	Pump Overhaul and Repair .....	3
MET	118	Machinery's Handbook.....	3
MTT	210	Machine Shop II.....	3
WLD	171	Gas Weld Cutting and Brazing <b>or</b>	
WLD	172	Shielded Metal Arc Welding <b>or</b>	
WLD	175	Gas Metal Arc Welding <b>or</b>	
WLD	178	Gas Tungsten Arc Welding .....	3

**Total Hours for Certificate .....18**

Gainful Employment Information: [www.clcillinois.edu/gemet](http://www.clcillinois.edu/gemet)

For more information on recommended courses or program specific advising, contact faculty member Margie Porter at (847) 543-2904 or the Engineering, Math and Physical Science division at (847) 543-2044.

## Mechatronics Technology

Engineering, Math and Physical Sciences Division  
Room T302, (847) 543-2044

### Mechatronics Technology (Certificate) Plan 24ZB

The skills taught in this certificate will train technicians in systems, processes and standards supporting the application of integrated systems to include electrical, mechanical, digital hardware and software and control systems.

**Required courses:**

ARM 111	Fundamentals of High Tech Manufacturing I.....	1
ARM 112	Fundamentals of High Tech Manufacturing II .....	1
ARM 113	Fundamentals of High Tech Manufacturing III .....	1
ARM 131	Robot Design and Construction I.....	1
ARM 132	Robot Design and Construction II .....	1
ARM 133	Robot Design and Construction III .....	1
ARM 151	Mechanical Systems I.....	1
ARM 152	Mechanical Systems II .....	1
ARM 153	Mechanical Systems III .....	1
ARM 156	Electrical Systems I .....	1
ARM 157	Electrical Systems II.....	1
ARM 158	Electrical Systems III .....	1
ARM 171	Automation I.....	1
ARM 172	Automation II .....	1
ARM 173	Automation III .....	1
ARM 174	Automation IV .....	1
ARM 175	Automation V .....	1
ARM 176	Automation VI .....	1
ARM 191	Pneumatics and Hydraulics I .....	1
ARM 192	Pneumatics and Hydraulics II .....	1
ARM 193	Pneumatics and Hydraulics III .....	1
ARM 196	Electrical Systems Capstone .....	1
ARM 197	Pneumatic and Hydraulic Systems Capstone .....	1
ARM 198	Complete Systems Integration .....	1
	Technical Electives (may include any ARM or MET course not included in this certificate, including MET 299, as agreed upon with a faculty adviser) .....	6

**Total Hours for Certificate .....30**

Gainful Employment Information: [www.clcollinois.edu/gearm](http://www.clcollinois.edu/gearm)

For more information on recommended courses or program specific advising, contact the Engineering, Math and Physical Science division at (847) 543-2044.

## Medical Assisting

**Biological and Health Sciences Division, Room B213,  
(847) 543-2042**

The goal of the Medical Assisting Program is to prepare competent entry level medical assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. The program trains students to work as Medical Assistants in a variety of settings. Medical Assistants provide routine administrative and clinical tasks to keep the offices of physicians, chiropractors, and other health professionals running smoothly. The tasks vary by office and specialty area. In smaller offices, Medical Assistants are usually generalists, providing both administrative and clinical support. In larger practices, Medical Assistants often specialize in certain areas. Administrative duties include tasks such as scheduling and receiving patients, preparing and maintaining medical records, handling telephone calls and written correspondence, medical transcription, submitting insurance claims, and maintaining practice finances. Clinical duties may include asepsis and infection control, taking patient histories and vital signs, performing first aid and CPR, preparing patients for procedures, performing electrocardiograms (ECGs), assisting the physician with examinations and treatments, performing suture removal, collecting and processing specimens, performing selected lab and diagnostic tests, administering medications (injections), and drawing blood (venipuncture).

Graduates of the Medical Assisting Program may seek employment in various settings such as doctors' offices, clinics, occupational health facilities/programs, lawyers' offices specializing in medical malpractice, urgent care centers, and hospital outpatient departments. Medical Assistants are employed in a variety of medical specialties including but not limited to: Pediatrics, Internal Medicine, Family Practice, Occupational Health, General Surgery, Obstetrics and Gynecology, Oncology, and Gastroenterology.

Students interested in Medical Assisting should have a sincere desire to work with patients directly in an outpatient setting, and a sincere interest in wanting to help people maintain and improve their health.

### Accreditation and Certification

The certified Medical Assisting program at the College of Lake County in Waukegan, Illinois, is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation  
of Allied Health Education Programs  
25400 U.S. Highway 19 North, Suite 158  
Clearwater, FL 33763  
(727) 210-2350

Graduates are eligible to sit for the AAMA Certification Examination, where, upon passing the examination, the individual earns the Certified Medical Assistant (CMA) credential.

### Program Entrance Requirements

- Attend a Medical Assisting program Information Session within 2 years of program enrollment.
- Apply to the college.
- Submit transcripts to the Records Office at Grayslake Campus: high school or equivalent, any college courses completed or degree). Complete credential evaluation form for college transcript - available in the Office of Admissions.
- Demonstrate College Reading and Writing Readiness and Basic Algebra Readiness (described on page 390 or seek advisor assistance)
- Meet Prerequisites: BIO 111 or BIO 244 and BIO 245 or equivalent transfer course with a grade of C or higher.
- Must be at least 18 years old by start of program.
- CLC cumulative G.P.A. is 2.0 or above.

It is recommended that students meet with an advisor to create a plan (\*\*Interested students may take HIT 111, HIT 119, PBT 110, and PBT 115 and MOA 115 prior to entering the program.)

Upon completion of above program requirements students can enroll in MOA 111 on a first come, first served basis.

## Associate in Applied Science and Career Certificates

*See addendum for corrections to this section.*

### New cohorts begin in the fall and spring.

Courses are offered in the fall (daytime) and spring (evening). Interested students may take HIT 111, HIT 119, MOA 115, PBT 110 and PBT 115 prior to taking MOA 111. Preference will be given to residents of Community College District 532 (including community colleges with which CLC has a Joint Educational Agreement). Students who live outside of CLC's district but are eligible for in-district tuition because they are employed by a district employer are NOT considered residents of the district for purposes of selection into the program.

Students must earn a minimum grade of "C" in all MOA, HIT, PBT, and BIO courses listed below to continue in and graduate from any of the certificate or degree programs (including the Healthcare Office Assistant.) In addition, students must maintain a CLC GPA of 2.0 or higher.

Students should seek the advice of the MOA faculty for course scheduling every semester.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

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### Medical Assisting (Associate in Applied Science) Plan 21MD

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#### Required General Education Coursework .....16-20

BIO	111	Human Form and Function <i>or</i>	
BIO	244	Anatomy and Physiology I <b>and</b>	
BIO	245	Anatomy and Physiology II	4-8
CMM	111	Communication Skills <i>or</i>	
CMM	121	Fundamentals of Speech <i>or</i>	
CMM	123	Dynamics of Small Group Discussion <i>or</i>	
CMM	128	Interviewing Practices	3
ENG	121	English Composition I <i>or</i>	
ENG	120	Technical Composition I	3
PSY	121	Introduction to Psychology	3
		Humanities or Fine Arts Elective*	3

#### Required Medical Assisting Coursework .....32

HIT	111	Medical Terminology	3
HIT	119	Pharmacology	1
MOA	111	Clinical Medical Assisting I	4
MOA	112	Basic Medical Office and Billing Procedures	4
MOA	115	Insurance Coding for Medical Assistants	3
MOA	211	Clinical Medical Assisting II	4
MOA	212	Medical Assisting Externship	3
		Medical Assisting Electives (see next page)	6
PBT	110	Introduction to Medical Lab Technology	2
PBT	115	Phlebotomy Techniques	2

#### Additional Required Coursework .....12

AOS	112	Computer Basics/Software Application <i>or</i>	
CIT	120	Introduction to Computers	3
CIT	111	Comprehensive Spreadsheets <i>or</i>	
CIT	112	Comprehensive Database <i>or</i>	
CIT	119	Introduction to Office Software	3
		General Electives *	6

#### Total Hours for A.A.S. Degree .....60-64

#### Medical Assisting Electives

AOS	119	Records Management	2
AOS	214	Administrative Office Procedures	3
BUS	115	Elements of Supervision	3
HIT	113	Ethical and Legal Aspects of Medical Records	2
HIT	215	Medical Science	3
HWP	240	Contemporary Health Issues	3
NUR	110	Nurse Assisting	7
PBT	116	Clinical Phlebotomy	2
PDS	121	Self Empowerment	1
PED	228	First Aid/CPR	2
PSY	220	Lifespan Development	3

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### Medical Assisting (Certificate) Plan 21MA

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This is a limited enrollment program. See previous page for details.

AOS	112	Computer Basics/Software Applications <i>or</i>	
CIT	120	Introduction to Computers	3
BIO	111	Human Form and Function <i>or</i>	
BIO	244	Anatomy and Physiology I <b>and</b>	
BIO	245	Anatomy and Physiology II	4-8
HIT	111	Medical Terminology	3
HIT	119	Pharmacology	1
MOA	111	Clinical Medical Assisting I	4
MOA	112	Basic Medical Office and Billing Procedures	4
MOA	115	Insurance Coding for Medical Assisting	3
MOA	211	Clinical Medical Assisting II	4
MOA	212	Medical Assisting Externship	3
PBT	110	Introduction to Medical Lab Technology	2
PBT	115	Phlebotomy Techniques	2
PSY	121	Introduction to Psychology	3

#### Total Hours for Certificate .....36-40

Gainful Employment Information: [www.clcillinois.edu/gemoa](http://www.clcillinois.edu/gemoa)

**Healthcare Office Assistant  
(Certificate) Plan 21ME**

This is not a limited enrollment program. Interested students do not need to screen to be admitted.

This certificate prepares students to work in the front office of a medical or dental office. Students in the program will learn how to schedule appointments, protect confidentiality of patient information, use proper telephone etiquette, and understand the health insurance claims process. An introduction to basic insurance coding will be included. Students must have adequate computer skills and access to the Internet to complete assignments in this program.

HIT 111	Medical Terminology .....	3
MOA 112	Basic Medical Office and Billing Procedures .....	4

**Total Hours Required for Certificate .....7**

**Technical Standards**

Students in the College of Lake County’s Medical Assisting Program must demonstrate the ability to perform or learn to perform the following essential skills:

- motor skills sufficient to perform record filing and data input tasks and be able to utilize various computer hardware and software in accomplishing operational functions related to medical assisting activities
- have full range of motion of joints, fine motor movements of the hands, ability to perform repetitive tasks and the ability to stoop, bend, twist, reach and occasionally kneel and squat
- lift and carry objects weighting up to 50 pounds
- push or pull a wheelchair, cart or gurney
- have adequate hearing which permits the individual to communicate in a rational and coherent manner with others in the English language
- examine closely images or other forms of output created by diagnostic equipment; must have color vision; must have good visual acuity for client assessment, medical checking, assisting in medical procedures, and for documentation

- demonstrate critical thinking/cognitive skills needed for problem solving and effective performance of standard medical assisting functions
- adapt effectively to environments with high stress in learning situations
- stand and walk 4 to 8 or more hours per clinical session
- acquire and apply information from classroom instruction, professional practice, independent learning and team projects
- synthesize information regarding healthcare data for formal, verbal and/or written, presentation to healthcare professionals
- follow job related logical thought processes to make judgments
- take initiative and work independently yet recognize self limitations
- demonstrate prolonged concentration skills
- cope in an appropriate manner to common job related stressful situations
- protect the confidentiality and security of health information
- meet the ethical standards of the profession.

Upon entrance, students must be able to perform the essential functions of the curriculum and meet the standards described herein for the program.

For more information on recommended courses or program specific advising, contact the Biological and Health Sciences division at (847) 543-2042.

### Medical Imaging

*See addendum for corrections to this section.*

**Biological and Health Sciences Division, Room B213,  
(847) 543-2042**

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#### Medical Imaging (Associate in Applied Science) Plan 21MI

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This is a limited enrollment program. MIM courses are predominantly offered during the day with the exception of MIM 110. Students are required to meet the screening requirements in effect at the time of screening. Students who screen and are accepted into a limited enrollment program will be required to complete the curriculum that is in place at the time of entrance into the program. If students who screen are not granted admission, they must rescreen and satisfy all screening and curriculum requirements in place for a future program start.

#### Screening Deadline: First Wednesday in March

The Medical Imaging Program prepares radiographers to work in medical facilities producing radiographic examinations which are interpreted by a radiologist or another medical specialist. Graduates of the program are qualified to take the national certification examination given by the American Registry of Radiologic Technologists. Graduates also meet the additional criteria required for Illinois licensure. The Medical Imaging program is nationally accredited by the Joint Review Committee on Education in Radiologic Technology: 20 North Wacker Drive, Suite 2850 Chicago, IL 60606-3182, (312) 704-5300, mail@jrcert.org.

Consistent with the Mission and goals of the College of Lake County, the Medical Imaging Program strives for excellence in preparing students for entry-level positions in the Medical Imaging profession. By maintaining high academic and clinical standards, graduates receive an Associate in Applied Science degree in Medical Imaging, become eligible for certification as Registered Radiologic Technologists, and attain clinical competency as entry-level professional radiographers.

Interested students may take MIM110 prior to being admitted to the program; however, the number of students that can be admitted to the MIM Program is limited. Therefore, a screening procedure is used to select the academically best qualified from those who request consideration. Preference is given to residents of Community College District 532 (CLC) and residents of other community college districts with which CLC has joint educational agreements. Students who live outside of CLC's district but are eligible for in-district tuition

because they are employed by a district employer are NOT considered residents of the district for purposes of selection into the program.

Students enrolled in the program are required to undergo a background check and a urine drug screen prior to attending their clinical site (MIM 170). The results of the background check and drug screen may result in the student losing his/her seat in the program. The costs are borne by the student.

Students who are selected for the program are required to attend a mandatory orientation session. Failure to attend the mandatory orientation session may result in the student losing his/her seat in the program and the next qualified student on the list will be selected in his/her place.

**To be considered for admission to the Medical Imaging Program, students must complete the following screening requirements prior to the screening deadline.**

**Students must have submitted the following documents to the Welcome and One-Stop Center:**

- A. Student Information Form.
- B. **Official** high school transcript with graduation date OR **Official** GED test scores  
OR  
**Official** college transcripts with graduation date and degree awarded  
OR  
**Official** foreign high school or college transcript evaluated by a NACES approved agency
- C. Medical Imaging Program Request for Screening Form
- D. If using courses from another college to meet prerequisites or degree requirements, submit an official transcript to the Records Office. It is also highly recommended to submit a "Request for Evaluation of Prior College Transcripts" form.

## Associate in Applied Science and Career Certificates

**Minimum Selection Criteria: student records must indicate the following:**

- A. High school graduate or equivalent or high school senior in last term
- B. College Reading and Writing Readiness and Basic Algebra Readiness
- C. CLC Cumulative GPA is 2.0 or above
- D. High school chemistry or physics with a lab (1 year, C or better)  
OR  
CHM 120 or CHM 121 or PHY 121 or an equivalent course (C or better)
- E. BIO 123 or BIO 161 or an equivalent course (C or better)
- F. High school algebra (2-years, C or better)  
OR  
MTH 108 or an equivalent course (C or better)  
OR  
Math Placement Test (indicates proficiency in MTH 108)
- G. Applicants may take the NLN PAX exam once every 90 days (approximately three months). NLN PAX exam results that are less than 90 days between exams will not be considered. Scores used for screening into limited enrollment programs will be valid for only 3 years prior to a screening deadline. Scores older than 3 years will not be considered for screening. Visit [www.nlnonlinetesting.org](http://www.nlnonlinetesting.org) for available test dates and times.
- H. Must be eighteen (18) years of age by mid-term of the fall semester following the screening deadline
- I. Attendance at a Medical Imaging Program Information Session (within two years of the screening deadline)

Students must earn a minimum grade of “C” in each Imaging course to continue in and graduate from the program.

<b>Summer Session One</b> .....	<b>4</b>
BIO 244 Anatomy and Physiology I .....	4
<b>Fall Semester One</b> .....	<b>16</b>
BIO 245 Anatomy and Physiology II .....	4
MIM 110 Introduction to Medical Imaging .....	3
MIM 111 Radiographic Anatomy and Positioning I .....	5
MIM 112 Principles of Radiographic Exposure .....	3
MIM 170 Introduction to the Clinical Education Center .....	1
<b>Spring Semester One</b> .....	<b>14</b>
ENG 121 English Composition I .....	3
MIM 113 Radiographic Anatomy and Positioning II .....	5
MIM 114 Clinical Practice I .....	3
PSY 121 Introduction to Psychology .....	3
<b>Summer Session Two</b> .....	<b>4</b>
MIM 115 Clinical Practice II .....	3
MIM 116 Advanced Radiographic Procedures I .....	1
<b>Fall Semester Two</b> .....	<b>14</b>
MIM 210 Technical Aspects of Patient Care .....	2
MIM 211 Imaging Equipment .....	6
MIM 212 Clinical Practice III .....	3
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 123 Dynamics of Small Group Discussion <i>or</i>	
CMM 128 Interviewing Practices .....	3
<b>Spring Semester Two</b> .....	<b>17</b>
MIM 214 Advanced Topics in Radiography .....	6
MIM 215 Clinical Practice IV .....	3
MIM 216 Computer Imaging .....	2
CMM 127 Intercultural Communication .....	3
HUM 127 Critical Thinking .....	3
<b>Summer Session Three</b> .....	<b>3</b>
MIM 271 Clinical Practice V .....	3
<b>Total Hours for A.A.S. Degree</b> .....	<b>72</b>

## Associate in Applied Science and Career Certificates

### Pregnancy Policy

During the first semester in the medical imaging program, all students will be taught basic radiation protection procedures. These instructions will include enough background so that students will be able to understand the possible biological risks of ionizing radiation to the embryo and fetus. In addition, any perspective student attending a Medical Imaging information session receives the NRC guide #8.29 and #8.13 with a brief overview.

Information is available through the United States Nuclear Regulatory Commission (NRC) guide #8.13 on instruction concerning prenatal radiation exposure. The NRC guide and forms are available in the appendices of the MIM handbook or at <http://pbadupws.nrc.gov/docs/ML0037/ML003739505.pdf>

A student may voluntarily inform the department chair and the radiation safety officer in writing using the form in the back of guide #8.13 should a pregnancy occur during the educational period. The pregnancy then becomes declared and a fetal dosimeter will be issued to the student to monitor radiation exposure. The signed NRC 8.13 form letter for declaring pregnancy will be placed in the student's CLC file. A student may rescind pregnancy declaration at any time in writing to the department chair.

Once the student declares their pregnancy, the possible risks to the embryo and fetus shall be reviewed and the review documented and signed by the radiation safety officer and the student. The student will then be referred to the department chair for discussion and documentation of the student's pregnancy options.

The student will choose one of the following pregnancy options:

1. The student may continue in the program without modification. In this case, two dosimeters will be used, one worn at the collar and on top of the apron during fluoroscopy and one worn on the belt and under the apron during fluoroscopy to record the student exposure and the fetal exposure respectively. Should recorded fetal exposure increase to 500 mrem or be received at a rate greater than 50 mrem per month at any time during pregnancy, the student will be required to take a leave of absence [see (b) below]. All course objectives and rotations shall be equivalent to any and all students enrolled in those particular courses. Adherence to radiation protection policies should eliminate almost all fetal exposure. Other counseling on radiation protection procedures shall be done as needed.
2. A leave of absence may be taken until the birth of the child. All medical imaging grades will be recorded as withdrawn (W) if the student grades are acceptable at the time. This will permit the student to return with no penalty. Student acceptance to clinical facilities depends upon availability of sites.
3. The student may terminate the program. All medical imaging grades will be recorded as withdrawn (W) if the student grades are acceptable at the time.

For more information on recommended courses or program specific advising, contact the following faculty members or the Biological and Health Sciences division at (847) 543-2042:

Joe Dielman / Lynn Wiechert

## Medical Imaging Technical Performance Standards

Medical Imaging is a practice of discipline with cognitive, sensory, affective, and psychomotor performance requirements. Based on those requirements and [the State of Illinois licensing requirements], a list of “Performance Standards” has been developed. Each standard has an example of an activity or activities that a potential student will be required to perform while enrolled in the radiography program. Please note that these examples are not all inclusive.

Issue	Standard	Examples of Required Activities (Not all inclusive)
<b>Visual</b>	Visual ability sufficient for observation and assessment necessary in the operation of equipment and care of patients.	<ul style="list-style-type: none"> <li>• Visualize x-ray collimator centering light and identify its center.</li> <li>• Observe the patient in order to assess the patient’s condition and/or needs from a distance of at least 20 feet.</li> <li>• Can see numbers, letters, calibrations, etc., of varying sizes located on equipment utilized by a radiographer.</li> </ul>
<b>Hearing</b>	Auditory abilities sufficient to monitor and assess patient needs, and to provide a safe environment.	<ul style="list-style-type: none"> <li>• Hear a patient talk in a normal tone from a distance of 20 feet</li> <li>• Hear monitor alarm, emergency signals, and cries for help.</li> </ul>
<b>Tactile</b>	Tactile ability sufficient for patient assessment and operation of equipment and care of patients.	<ul style="list-style-type: none"> <li>• Perform palpation, tactile assessment and manipulation of body parts to ensure proper body placement and alignment.</li> <li>• Manipulate dials, buttons and switches of various sizes.</li> </ul>
<b>Mental</b>	Mental ability sufficient for patient assessment and operation of equipment and care of patients.	<ul style="list-style-type: none"> <li>• Be able to visually concentrate and focus attention, thoughts, and efforts on patients and equipment for varying periods of time.</li> <li>• Be able to respond to patients’ changing physical conditions.</li> </ul>
<b>Environmental Requirements</b>	Physical health sufficient enough to be able to tolerate certain conditions present in the clinical setting.	<ul style="list-style-type: none"> <li>• Be able to tolerate risks of discomforts in the clinical setting that require special safety precautions, additional safety education, and health risk monitoring (i.e., ionizing radiation), working with sharps, chemicals, and infectious disease. Students may be required to use protective clothing or gear such as masks, goggles, gloves, and lead aprons.</li> </ul>
<b>Communication</b>	Communication abilities sufficient for interaction with others in verbal and written form.	<ul style="list-style-type: none"> <li>• Effectively communicate to the patient in order to converse, instruct the patient, relieve anxiety, gain their cooperation during procedures, understand the patient when they are communicating symptoms of medical emergency.</li> </ul>

## Associate in Applied Science and Career Certificates

Issue	Standard	Examples of Required Activities (Not all inclusive)
<b>Mobility</b>	Physical abilities sufficient to move from room to room and maneuver in small spaces.	<ul style="list-style-type: none"> <li>• Assist all patients, according to individual needs and abilities, in moving, turning, transferring from transportation devices to x-ray table, etc.</li> <li>• Be able to push, pull, and lift a minimum 50 lbs.</li> <li>• Push a stretcher and/or wheelchair without injury to self, patient, and others.</li> <li>• Push a mobile x-ray machines from one location to another, including turning corners, getting on and off an elevator, and manipulating it in a patient's room or surgery.</li> </ul>
<b>Motor Skills</b>	Gross and fine motor abilities sufficient to provide safe effective patient care.	<ul style="list-style-type: none"> <li>• Manually move the x-ray tube and position the tube at various angles and heights up to 7 feet.</li> <li>• Accurately draw up sterile contrast media and other solutions without contaminating the syringe and/or needles, etc.</li> <li>• Physically be able to administer emergency care including performing CPR.</li> <li>• Place cassettes (image receptors) in Bucky trays and properly manipulate all locks.</li> <li>• Be able to stand for periods as long as 2-hours wearing lead aprons and to walk a distance of 5 miles during a normal work day.</li> </ul>
<b>Critical Thinking</b>	Critical thinking ability sufficient for safe, clinical judgment.	<ul style="list-style-type: none"> <li>• Identify cause-effect relationships in clinical situations.</li> <li>• Evaluate radiographs to ascertain that they contain proper identification and are of diagnostic value.</li> <li>• Select exposure factors and accessory devices for all radiographic procedures with consideration of patient size, age, and extent of disease.</li> <li>• Assess patient's condition and needs from a distance of at least 20 feet.</li> <li>• Initiate proper emergency care protocols, including CPR, based on assessment data.</li> </ul>
<b>Interpersonal Behavioral and Social Skills</b>	Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural, and intellectual backgrounds.	<ul style="list-style-type: none"> <li>• Establish rapport with patients, families, and colleagues.</li> <li>• Allow mature, sensitive, and effective relationships with patients and fellow workers (interpersonal skills).</li> <li>• Tolerate physically taxing workload.</li> <li>• Function effectively under stress.</li> <li>• Adapt to changing environments (flexible schedules, emergency conditions).</li> <li>• Display compassion, professionalism, empathy, integrity, concern for others, and interest and motivation.</li> </ul>

**Developed by St. Petersburg College Radiography Program: Permission granted to CLC.**

*The American with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 and College of Lake County policy prohibits discrimination against individuals with disabilities. One of the purposes of this document is to ensure that students are aware of the requirements of this program and acknowledge their understanding of the program requirements. Students who have a disability and are in need of accommodations or modifications must contact the Office for Students with Disabilities ("OSD"). The OSD will determine whether or not any reasonable accommodations or modifications can be provided.*

### The Medical Imaging program sets forth the following goals and outcomes:

- Goal 1: Students/graduates will use critical thinking and problem-solving skills.
- Students will demonstrate critical thinking skills.
  - Students will have the ability to modify routine procedures.
- Goal 2: Students/graduates will be clinically competent.
- Students will evaluate radiographs for pathological processes.
  - Students will demonstrate proficiency in the surgical suite.
- Goal 3: Students/graduates will be able to communicate.
- Students will communicate effectively during fluoroscopy examinations.
- Goal 4: Student/graduates will evaluate the importance of professional growth and development.
- Students will assess their growth and development.
  - Students will demonstrate a basic understanding of advanced imaging modalities.
- Goal 5: Program effectiveness measures.
- Students/graduates will pass the certification examination.
  - Graduates will have the knowledge and skills expected by employers as entry technologists.
  - Graduates will obtain employment in radiography.
  - Graduates will complete the program within two years.
  - Graduates will indicate overall satisfaction.

### Magnetic Resonance Imaging (MRI) and Computed Tomography (CT) Requirements

These are limited enrollment programs. Didactic courses are only offered online. Students are required to meet the screening requirements in effect at the time of screening. Students who screen and are accepted into a limited enrollment program will be required to complete the curriculum that is in place at the time of entrance into the

program. If students who screen are not granted admission, they must rescreen and satisfy all screening and curriculum requirements in place for a future program start.

Consistent with the Mission and Goals of the College of Lake County, the Magnetic Resonance Imaging and the Computed Tomography certificates strive for excellence in preparing students for advanced-level positions in the Medical Imaging profession. By maintaining high academic and clinical standards, graduates receive a certificate in MRI or CT, become eligible for certification as MRI or CT Registered Technologists, and attain clinical competency as advanced professional radiographers.

#### 1. Students must have submitted the following documents to the Welcome and One-Stop Center:

- A. Student Information Form.
- B. **Official** transcripts with graduation date and degree awarded of your related imaging field
- C. **MRI or CT Request for Screening Form**
- D. Copy of current certification of your imaging field
- E. A professional resume documenting years of experience in a related imaging field (must include employer, job responsibilities, and dates employed)
- F. **Official** copy of your certification scores sent directly to CLC from the certifying agency

#### 2. Meet minimum technical performance standards as defined for the profession.

- Please note that MRI is an advanced certificate and open only to students who are registered in radiography or radiation therapy by the ARRT or in nuclear medicine technology by ARRT or the Nuclear Medicine Technology Certification Board (NMTCB) or in sonography by ARRT or in any sonography-related modality by ARDMS. In addition, students must maintain registration in radiography or radiation therapy by the ARRT or in nuclear medicine technology by the ARRT or NMTCB or in sonography by ARRT or in any sonography-related modality by ARDMS at all times to be eligible for certification and registration in magnetic resonance imaging.
- Please note that CT is an advanced certificate and open only to students who are registered in radiography or radiation therapy. In addition, students must maintain registration in radiography or radiation therapy by the ARRT at all times to be eligible for certification and registration in Computed Tomography.

## Associate in Applied Science and Career Certificates

*See addendum for corrections to this section.*

### Screening Deadlines

- **MRI** – The deadline is the first Wednesday in March of odd years. If space is available in the program after the initial screening deadline, qualified students will be accepted in an order based on academic qualifications. All required materials must be submitted to the Records Office by the screening deadlines.
- **CT** – The deadline is the first Wednesday in March of even years. If space is available in the program after the initial screening deadline, qualified students will be accepted in an order based on academic qualifications. All required materials must be submitted to the Records Office by the screening deadlines

The number of students that can be admitted to any clinical education course is limited for any given session. Therefore, a screening procedure is used to select the academically best qualified from those who request consideration.

- Preference is given to residents of Community College District 532 (CLC) and residents of other community college districts with which CLC has a Joint Education Agreement. Students who live outside of CLC's district but are eligible for in-district tuition because they are employed by a district employer are NOT considered residents of the district for purposes of selection into the program.
- Students who are selected for the program are required to undergo a background check and a urine drug screen. The results of the background check and drug screen may result in the student losing his/her seat in the program. The costs are borne by the student.
- Students must maintain a minimum grade of "C" in each Medical Imaging course to continue in and graduate from the MRI or CT program. In addition, students must maintain a CLC GPA of 2.0 or higher.

For more information on recommended courses or program specific advising, contact faculty member Lynn Wiechert or the Biological and Health Sciences division at (847) 543-2042.

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### Magnetic Resonance Imaging (Certificate) Plan 21MR

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The Magnetic Resonance Imaging (MRI) certificate prepares radiographers to work in medical facilities as MRI technologists. Graduates of the program are qualified to take the national MRI certification examination given by the American Registry of Radiologic Technologists. See previous page for admission requirements.

Note: The lecture portion of the courses is taught online

<b>Fall Semester (odd years)</b> .....	<b>8</b>
MIM 251 MRI Physics and Instrumentation .....	3
MIM 253 MRI Procedures .....	2
MIM 272 MRI Practicum+ .....	3

<b>Spring Semester</b> .....	<b>7</b>
MIM 255 MRI Sectional Anatomy and Pathology .....	4
MIM 272 MRI Practicum+ .....	3

**Total Hours for Certificate** .....

**15**

+ The Practicum has been designed to be flexible and accommodate a variety of schedules. Actual clinic days and hours will be determined by the student and the instructor.

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### Computed Tomography (Certificate) Plan 21MT

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The Computed Tomography (CT) certificate prepares radiographers to work in medical facilities as a CT Technologist. Graduates of the program are qualified to take the national CT certification examination given by the American Registry of Radiologic Technologists (ARRT). See previous page for admission requirements.

Note: The lecture portion of the courses is taught online

<b>Fall Semester (even years)</b> .....	<b>8</b>
MIM 252 CT Physics, Instrumentation, and Procedures I .....	3
MIM 256 CT Sectional Anatomy and Pathology I .....	3
++MIM 273 CT Practicum I+ .....	2

<b>Spring Semester</b> .....	<b>8</b>
MIM 254 CT Physics, Instrumentation, and Procedures II .....	3
MIM 258 CT Sectional Anatomy and Pathology II .....	3
MIM 274 CT Practicum II+ .....	2

**Total Hours for Certificate** .....

**16**

Gainful Employment Information: [www.clcillinois.edu/gemim](http://www.clcillinois.edu/gemim)

+ The Practicum has been designed to be flexible and accommodate a variety of schedules. Actual clinic days and hours will be determined by the student and the instructor.

## Nursing

Biological and Health Sciences Division, Room B213,  
(847) 543-2043

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### Nursing

#### (Associate in Applied Science) Plan 21NC

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This is a limited enrollment program. Day and evening options are available. Students are required to meet the screening requirements in effect at the time of screening. Students who screen and are accepted into a limited enrollment program will be required to complete the curriculum that is in place at the time of entrance into the program. If students who screen are not granted admission, they must rescreen and satisfy all screening and curriculum requirements in place for a future program start.

#### Screening Deadlines: Fourth Wednesday in February and the Fourth Wednesday in September

The Associate Degree Program in Nursing prepares individuals to practice as registered nurses in entry level positions across health care settings. The program provides a balanced curriculum of general education and nursing courses. Clinical experience is provided at local hospitals and health care agencies.

The Nursing Program is accredited by the Accreditation Commission for Education in Nursing, 3343 Peachtree Rd., NE, Suite 500, Atlanta, GA 30326, (404) 975-5000, [www.nlnac.org/ACEN](http://www.nlnac.org/ACEN). It is approved by the State of Illinois Department of Financial and Professional Regulation, 320 West Washington Street, Springfield, IL 62786, [www.IDFPR.com](http://www.IDFPR.com). After the completion of the program, the graduate is eligible to take the National Council Licensure Examination (NCLEX) for Registered Nursing and, if completed successfully, may apply to any state in the U.S. for licensure as a registered nurse.

Registered nurses must be licensed by a State Department of Financial and Professional Regulation. To become licensed, applicants must graduate from an approved nursing education program, pass an examination for registered nursing, pay the required fees and satisfy requirements of a UCIA criminal history record check.

The number of students admitted into the nursing program is limited for both the fall and spring semester; therefore, a screening procedure is used to select the academically best qualified from those who request consideration. Preference will be given to residents of Community College District 532. Students who live outside of CLC's district but are eligible for in-district tuition because they are employed by a district employer are NOT considered residents of the district for purposes of selection into the program.

**To be considered for admission to the Nursing Program, students must complete the following screening requirements prior to the screening deadline.**

**Students must have submitted the following documents to the Welcome and One-Stop Center :**

- A. Student Information Form
- B. **Official** high school transcript with graduation date OR **Official** GED test scores  
OR  
**Official** college transcripts with graduation date and degree awarded  
OR  
**Official** foreign high school or college transcript evaluated by a NACES approved agency
- C. Nursing Program Request for Screening Form once screening requirements and prerequisites are completed.
- D. If using courses from another college to meet prerequisites or degree requirements, submit an official transcript to the Records Office. It is also highly recommended to submit a "Request for Evaluation of Prior College Transcripts" form.

## Associate in Applied Science and Career Certificates

### Minimum Selection Criteria: student records must indicate the following:

- A. College Reading and Writing Readiness and Basic Algebra Readiness
- B. CLC Cumulative GPA is 2.0 or above
- C. CHM 120 or an equivalent course (C or better)
- D. BIO 123 or an equivalent course (C or better)
- E. BIO 244 or an equivalent course (C or better)
- F. NLN PAX with minimum acceptable RN percentile rank scores of 50 in the verbal, math, and science sections, and a composite RN percentile rank of 60 (within 3 years prior to the screening deadline)
- G. Certified Nurse Assistant (CNA) on the Illinois Healthcare Worker Registry or Illinois Licensed Practical Nurse (LPN) if applicable
- H. Must be at least eighteen (18) years of age at the start of the program
- I. Attendance at a Nursing Program Information Session (within 2 years of screening deadline)

\*\*If BIO 244 AND BIO 246 (or equivalent) are completed at another accredited college with a grade of “C” or better, BIO 123 will not be required.

Please note that MTH 102 or equivalent is a prerequisite for BIO 123 and CHM 120.

**Note:** Applicants may take the NLN PAX exam once every 90 days (approximately three months). NLN PAX exam results that are less than 90 days between exams will not be considered. Scores used for screening into the nursing program will be valid for only 3 years prior to a screening deadline. Scores older than 3 years will not be considered for screening. Visit [www.nlnonlinetesting.org](http://www.nlnonlinetesting.org) for available test dates and times.

Students who are selected for the program are required to undergo a background check and a urine drug screen. The results of the background check and drug screen may result in the student losing their seat in the program.

Students who are selected for the program are required to attend a *mandatory orientation session*. Failure to attend the mandatory orientation session may result in the student losing their seat in the program.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met. For completion of the A.A.S. degree in Nursing, students will need to follow the program in place at the time they are *accepted* into the Nursing program.

A student must maintain at least a grade of “C” in each nursing course to continue in and graduate from the program.

**Summer Term** .....4  
 BIO 246 Microbiology .....4

**Semester One** .....15  
 BIO 245 Anatomy and Physiology II .....4  
 NUR 133 Foundational Concepts of  
 Nursing Practice .....8  
 PSY 121 Introduction to Psychology .....3

**Semester Two** .....15  
 ENG 121 English Composition I .....3  
 NUR 134 Medical Surgical Nursing.....9  
 PSY 220 Lifespan Development .....3

**Semester Three** .....15  
 ANT 221 Cultural Anthropology *or*  
 ANT 228 Cross-Cultural Relationships *or*  
 CMM 127 Intercultural Communication .....3  
 NUR 233 Family-Centered Nursing Care .....6  
 NUR 232 Mental Health Nursing .....3  
 Humanities or Fine Arts Elective\* .....3

**Semester Four** .....15  
 CMM 121 Fundamentals of Speech *or*  
 CMM 123 Dynamics of Small Group Discussion *or*  
 CMM 128 Interviewing Practices .....3  
 NUR 234 Complex Medical, Surgical  
 and Leadership Nursing .....9  
 General Elective \* .....3

**Total Hours for A.A.S. Degree** .....64

^ Courses used to fulfill the nursing program screening requirements may not be used as a general elective, with the exception of NUR110.

For more information on recommended courses or program specific advising, contact the nursing education office at (847) 543-2043:

Mary Buckner / Deb Colver / Willa Harrison  
 Becky Hawarny / Barbara Hunt / Dunia Jordan  
 Cindy MacDonald / Carmella Mikol / Amy Morton-Miller  
 Janet Racina / Mary Scheffler / Peggy Welch

## Nursing Technical Performance Standards

Nursing is a practice discipline with cognitive, sensory, affective, and psychomotor performance requirements. Based on those requirements and [the State of Illinois licensing requirements], a list of “Performance Standards” has been developed. Each standard has an example of an activity or activities that a potential student will be required to perform while enrolled in the nursing program.

Issue	Standard	Examples of Required Activities (Not all inclusive)
<b>Visual</b>	Visual ability for observation and assessment necessary in the operation of equipment and care of patients.	<ul style="list-style-type: none"> <li>• Ability to observe subtle changes in patients such as skin color intensity, color coded supplies and abnormal skin conditions.</li> <li>• Ability to view various equipment settings such as patient monitors, infusion pumps, syringes with minute calibrations and Intravenous and medication labels.</li> <li>• Ability to view computer records necessary for patient care.</li> <li>• Ability to perform procedures using hand-to eye-coordination.</li> <li>• Ability to read medication administration records in paper or electronic format.</li> </ul>
<b>Hearing</b>	Auditory abilities sufficient to monitor and assess patient needs, and to provide a safe environment.	<ul style="list-style-type: none"> <li>• Ability to hear and verbally respond to patient questions and directions from instructors, students, and staff, in person and/or over the phone.</li> <li>• Ability to listen to breath and heart sounds while assessing vital signs including BP, pulse, and respiration rate.</li> <li>• Ability to hear equipment monitors such as IV pumps, bed alarms and heart monitors.</li> <li>• Ability to hear patient call lights.</li> <li>• Ability to hear faint body sounds (heart sounds, bowel sounds) and assess placement of tubes.</li> <li>• Ability to hear in situations where masks are required such as surgery or isolation rooms.</li> </ul>
<b>Tactile</b>	Tactile ability sufficient for patient assessment and treatment and operation of equipment	<ul style="list-style-type: none"> <li>• Ability to perform the required techniques using patient equipment such as probes, sensors, pumps, bed controls, monitors, and computers.</li> <li>• Ability to perform palpation of pulses in a variety of locations on the body.</li> <li>• Ability to palpate the body surface during physical assessment.</li> <li>• Ability to sense changes in body temperature by touch.</li> </ul>
<b>Mental</b>	Mental ability sufficient for patient assessment and treatment and operation of equipment and care of patients.	<ul style="list-style-type: none"> <li>• Ability to visually concentrate and focus attention, thoughts, and efforts on patients and equipment for varying periods of time.</li> <li>• Ability to respond to patients’ changing physical conditions</li> <li>• Ability to function in rapidly changing and high stress situations and environments.</li> <li>• Ability to respond in a calm manner during an emergency situation.</li> </ul>

## Associate in Applied Science and Career Certificates

Issue	Standard	Examples of Required Activities (Not all inclusive)
<b>Environmental Requirements</b>	Physical health sufficient enough to be able to tolerate certain conditions present in the clinical setting.	<ul style="list-style-type: none"> <li>• Ability to tolerate risks or discomforts in the clinical setting that require special safety precautions, additional safety education, health risk monitoring, working with sharps, chemicals, and infectious disease. Students may be required to use protective clothing or gear such as masks, goggles, gloves.</li> </ul>
<b>Communication</b>	Communication abilities sufficient for interaction with others in verbal and written form.	<ul style="list-style-type: none"> <li>• Ability to effectively communicate to the patients in order to assess, instruct, relieve anxiety, converse, gain their cooperation during procedures, provide care and treatments, dispense medications, and understand the patients when they are communicating symptoms of a medical emergency.</li> <li>• Ability to obtain information, explain treatment procedures, initiate health education training, and describe patient situations</li> <li>• Ability to perceive non-verbal communications</li> <li>• Ability to document following ethical and legal guidelines</li> <li>• Ability to read the patient's medical history and/or medical consult.</li> <li>• Ability to document own actions and patient responses as indicated.</li> <li>• Ability to collaborate with other members of the health care team verbally, on the phone or in writing.</li> <li>• Ability to accurately report a patient's condition to others verbally, on the phone or in writing.</li> </ul>
<b>Mobility</b>	Physical abilities sufficient to move from room to room and maneuver in small spaces.	<ul style="list-style-type: none"> <li>• Ability to assist all patients in turning, moving in bed, transferring, and ambulating according to individual needs and abilities.</li> <li>• Ability to move in confined spaces.</li> <li>• Ability to stand and walk for prolonged periods of time.</li> <li>• Ability to squat, bend, and stoop.</li> <li>• Ability to push, pull, and lift 50 lbs.</li> <li>• Ability to push a wheelchair, cart, bed, or equipment without injury to self, patient, or others.</li> <li>• Ability to reach above the shoulders to assess and maintain IV fluids or bedside monitors.</li> </ul>
<b>Motor Skills</b>	Gross and fine motor abilities sufficient to provide safe effective patient care.	<ul style="list-style-type: none"> <li>• Physically be able to administer emergency care including performing CPR.</li> <li>• Ability to execute the small muscle hand and finger movements required to safely perform nursing procedures such as medication administration, intravenous therapy, dressing changes, and tube or catheter insertion and removal.</li> <li>• Ability to grasp, twist and manipulate small objects such as IV tubing, syringes, droppers, and medication packaging.</li> </ul>

Issue	Standard	Examples of Required Activities (Not all inclusive)
<b>Critical Thinking</b>	Critical thinking ability sufficient for safe clinical judgment.	<ul style="list-style-type: none"> <li>• Ability to recognize cause-effect relationships in clinical situations.</li> <li>• Ability to develop and implement nursing diagnoses and patient care plans.</li> <li>• Ability to assess subtle changes in a patient’s condition and respond appropriately.</li> <li>• Ability to evaluate patient information such as assessment data, vital signs, or laboratory values and respond appropriately.</li> <li>• Ability to safely administer medications and understand the actions and potential reactions.</li> <li>• Ability to initiate proper emergency care protocols, including CPR, based on assessment data.</li> </ul>
<b>Interpersonal Behavioral and Social Skills</b>	Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural, and intellectual backgrounds.	<ul style="list-style-type: none"> <li>• Ability to establish rapport with patients, families, and colleagues.</li> <li>• Ability to allow mature, sensitive, and effective relationships with patients and fellow workers (interpersonal skills).</li> <li>• Ability to tolerate a physically taxing and mentally challenging workload.</li> <li>• Ability to function effectively under stress.</li> <li>• Ability to adapt to changing environments (flexible schedules, emergency conditions, multiple interruptions, noised, distractions).</li> <li>• Ability to display compassion, professionalism, empathy, integrity, concern for others, and interest and motivation.</li> <li>• Ability to negotiate in situations of conflict and appropriately resolve the conflict.</li> </ul>

*The American with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 and College of Lake County policy prohibits discrimination against individuals with disabilities. One of the purposes of this document is to ensure that students are aware of the requirements of this program and acknowledge their understanding of the program requirements. Students who have a disability and are in need of accommodations or modifications must contact the Office for Students with Disabilities (“OSD”). The OSD will determine whether or not any reasonable accommodations or modifications can be provided.*

## Associate in Applied Science and Career Certificates

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### Certified Nurse Assisting (Certificate) Plan 21NB

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This is not a limited enrollment program, however, seats fill quickly. Day, evening and Friday-Saturday options are available. Theory classes are offered at all CLC campuses depending upon the section in which you are enrolled. Clinicals are conducted at long term care facilities throughout the community.

This program prepares students for employment as nurse assistants helping those who provide patient care. While the majority of nurse assistants work in long-term care facilities, some are employed in hospitals and other care settings. The program includes emphasis on basic nurse assistant skills and related knowledge. It also provides campus and clinical laboratory experiences and focuses on the role of the nurse assistant as part of the health care team and in meeting legal and regulatory parameters.

This program is approved by the Illinois Department of Public Health, 525 West Jefferson, Springfield, IL 62761, [www.idph.state.il.us](http://www.idph.state.il.us). Students must satisfy the state required theory and clinical hours of attendance. **Students who fail to attend the first day of class or clinical or fail to meet the state required hours of attendance throughout the course will not be allowed to continue in the class.** Students MUST OFFICIALLY WITHDRAW THEMSELVES from the class by the refund date listed in the current class schedule in order to cancel their financial obligations.

The State of Illinois Health Care Worker Background Check Act of 1995 requires the college to initiate a fingerprint criminal history record check on all individuals registering for the program. The background check and health requirements must be completed prior to enrolling in the course. Students with disqualifying convictions will not be allowed to continue in the course. Disqualifying convictions can be viewed at [www.idph.state.il.us/nar/disconvictions.htm](http://www.idph.state.il.us/nar/disconvictions.htm). Please consult the CLC nursing web page for additional information regarding the background check at [www.clcillinois.edu/programs/nur](http://www.clcillinois.edu/programs/nur).

Upon successful completion of this program, students are eligible to take the state mandated written competency examination for Nurse Assistant Certification. To be eligible to take the state exam, students must pass the skill portion of the course and receive a "C" or better grade.

#### Prerequisites

Students must be at least 16 years of age and have met **one** of the following prerequisites:

1. TABE (form A) score of 10 or higher  
OR
2. APT score of 122 or higher  
OR
3. ELI Accuplacer score of 285 or higher  
OR
4. COMPASS ELI score of 251 or higher  
OR
5. ELI 97 and 98 with a B or higher  
OR
6. ELI 107 with a C or higher  
OR
7. ELI 108 with C or higher or ENG 108 with a C or higher  
OR
8. College Reading and Writing Readiness

#### Additional Requirements prior to enrollment:

- Disclosure and Authorization form must be completed and submitted to the Nursing Education Office
  - <http://dept.clcillinois.edu/nur/DisclosureAndAuthorizationForm.pdf>
  - After submission, the student will be provided with a form they will need to take with them for fingerprinting, as well as fingerprinting times and locations
- Receipt from fingerprinting vendor
- Health Passport from the CLC Health Center showing that health requirements were met. Contact CLC Health Center for more information at (847) 543-2064

#### Certificate Requirements

To receive the Certified Nurse Assisting Certificate, a student must receive a minimum grade of "C" in the following NUR course and maintain a CLC GPA of 2.0 or higher.

NUR 110 Nurse Assisting.....7

**Total Hours for Certificate .....7**

For more information on recommended courses or program specific advising, contact faculty member Imelda Forsberg at (847) 543-2337, Ruth Belec-Olander at (847) 543-6525 or the Nursing Education office at (847) 543-2043.

## Paralegal Studies

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### Paralegal Studies (Associate in Applied Science) Plan 22PA

The Paralegal Studies program prepares students to perform substantive and procedural legal work under the supervision of an attorney. Paralegals work in many different areas of law within the public and private sectors, and assist attorneys in the delivery of efficient and cost-effective legal services. The purpose of the program is to prepare students for successful, productive employment and contributions to the legal and business fields. The program provides the foundation for students to think critically and ethically in performing specifically delegated substantive legal work for which a lawyer is responsible. This program is approved by the American Bar Association. ABA guidelines limit the use of online and blended courses for paralegal education. Thus, no PLS degree or certificate will be issued unless at least 10 credit hours of PLS coursework has been completed in a traditional delivery (face-to-face) format.

**Accelerated Option:** Student who completed ENG 121 or the equivalent OR with Department Chair Consent can enroll in PLS 110 and PLS 112.

Paralegal Studies Program Policy on Auditing PLS Courses: Auditing PLS courses is only permitted by students who meet course prerequisites and who are currently employed as paralegals in the field of law that is the topic of the course requested to audit. Students seeking to audit a PLS course must obtain consent of the department chair.

Students should seek the advice of the Department Chair for course scheduling.

To complete an A.A.S., students must meet the General Requirements on page 121. All course prerequisites must be met.

<b>First Semester</b> .....	<b>15</b>
PLS 110 Introduction to Paralegal Studies .....	3
CIT 119 Introduction to Office Software <i>or</i>	
AOS 112 Computer Basics/Software Applications .....	3
ENG 121 English Composition I .....	3
PHI 122 Logic <i>or</i>	
PHI 125 Introduction to Ethics .....	3
PSC 121 American National Politics .....	3
<b>Second Semester</b> .....	<b>12</b>
CMM 128 Interviewing Practices .....	3
ENG 126 Advanced Composition: Scientific and Technical Communications <i>or</i>	
ENG 266 Professional Communication .....	3
PLS 112 Legal Research and Writing .....	3
PLS 210 Tort Law+ .....	3

<b>Third Semester</b> .....	<b>12</b>
PLS 114 Litigation .....	3
PLS 116 Contract Law+ .....	3
PLS Elective .....	3
PSY 121 Introduction to Psychology <i>or</i>	
SOC 121 Introduction to Sociology .....	3

<b>Fourth Semester</b> .....	<b>12</b>
MTH 114 Applied Mathematics I <i>or</i>	
MTH Elective (114 or higher)* .....	3
PLS 118 Real Property Law+ .....	3
PLS 211 Drafting Legal Documents .....	3
PLS Elective .....	3

<b>Fifth Semester</b> .....	<b>12</b>
PLS 251 Paralegal Studies Capstone .....	3
PLS Electives .....	9

**Total Hours for A.A.S. Degree** .....

### Paralegal Studies Electives

Select 15 hours from the list below:

BUS 221 Business Law I .....	3
CRJ 121 Introduction to Criminal Justice .....	3
CRJ 230 Principles of Courtroom Testimony .....	3
PLS 212 Business Law II/Corporate and Securities Law .....	3
PLS 213 Employment and Labor Law .....	3
PLS 214 Administrative Agency Law .....	3
PLS 215 Immigration Law .....	3
PLS 216 Intellectual Property Law .....	3
PLS 218 Bankruptcy Law .....	3
PLS 230 Family Law .....	3
PLS 231 Health Care Law .....	3
PLS 232 Probate Law .....	3
PLS 233 Criminal Litigation .....	3
PLS 234 Elder Law .....	3
PLS 235 Law Office Technology .....	3
PLS 236 Alternative Dispute Resolution .....	3
PLS 250 Internship in Paralegal Studies++ .....	3
PLS 299 Topics in Paralegal Studies .....	1-6

+ PLS 116, PLS 118, PLS 210 may be taken in any order.

++ PLS 250 and PLS 251 should be reserved for the final semester prior to graduation.

### Paralegal Studies (Certificate) Plan 22PB

The Paralegal Studies certificate prepares students to perform substantive and procedural legal work under the supervision of an attorney. Paralegals work in many different areas of law within the public and private sectors, and assist attorneys in the delivery of efficient and cost-effective legal services. The required certificate courses focus on the specific knowledge and skills needed by paralegals in general areas. The elective courses enable students to gain additional knowledge in the legal specialty areas of greatest interest to them. The

## Associate in Applied Science and Career Certificates

certificate program is available only to students who already have an Associate's or Bachelor's degree. This program is approved by the American Bar Association. ABA guidelines limit the use of online and blended courses for paralegal education. Thus, no PLS degree or certificate will be issued unless at least 10 credit hours of PLS coursework has been completed in a traditional delivery (face-to-face) format.

### First Semester 6

PLS	110	Introduction to Paralegal Studies .....	3
CIT	119	Introduction to Office Software <i>or</i>	
AOS	112	Computer Basics/Software Applications.....	3

### Second Semester .....12

PLS	112	Legal Research and Writing I .....	3
PLS	114	Litigation .....	3
		PLS Elective .....	3
		PLS Elective .....	3

### Third Semester .....12

		PLS Elective .....	3
		PLS Elective .....	3
PLS	211	Drafting Legal Documents .....	3
PLS	251	Paralegal Studies Capstone++ .....	3

### Total Hours for Certificate .....30

#### Paralegal Studies Certificate Electives

x Select 12 hours from the list below:

BUS	221	Business Law I .....	3
CRJ	121	Introduction to Criminal Justice.....	3
CRJ	230	Principles of Courtroom Testimony .....	3
PLS	116	Contract Law .....	3
PLS	118	Real Property Law .....	3
PLS	210	Tort Law .....	3
PLS	212	Business Law II/Corporate and Securities Law .....	3
PLS	213	Employment and Labor Law .....	3
PLS	214	Administrative Agency Law.....	3
PLS	215	Immigration Law .....	3
PLS	216	Intellectual Property .....	3
PLS	218	Bankruptcy Law .....	3
PLS	230	Family Law.....	3
PLS	231	Health Care Law.....	3
PLS	232	Probate .....	3
PLS	233	Criminal Litigation.....	3
PLS	234	Elder Law .....	3
PLS	235	Law Office Technology .....	3
PLS	236	Alternative Dispute Resolution .....	3
PLS	250	Internship in Paralegal Studies++ .....	3
PLS	299	Topics in Paralegal Studies.....	1-6

x At least nine credit hours must have the PLS designation, and only one non-PLS elective course may apply towards the certificate.

++ PLS 250 and PLS 251 should be reserved for the final semester prior to graduation.

NOTE: To earn this certificate, students must have completed one of the following degrees: Bachelor of Arts degree, Bachelor of Science degree, Associate in Arts degree, Associate in Science degree or Associate in Applied Science degree\* **in addition** to the specialty courses required for the certificate. Students cannot earn both the A.A.S. degree and the certificate in Paralegal Studies simultaneously.

\* Students must have a college degree in order to be eligible to pursue a PLS certificate.

All students wishing to pursue the Certificate program must submit a transcript of their degree and screening form to the Welcome and One-Stop Center. To obtain the form, please visit [www.clcillinois.edu/limitedenrollment](http://www.clcillinois.edu/limitedenrollment).

For students with A.A.S. degrees and students with any degree from an institution outside the U.S.:

The CLC Paralegal Studies program is approved by the American Bar Association (ABA). The ABA requires that all students who wish to complete a Paralegal Studies Certificate program have completed a minimum of 18 semester credit hours in general education courses in a minimum of three disciplines.

The requirements for all Associate in Arts, Associate in Science, Bachelor of Arts, or Bachelor of Science degrees at accredited U.S. institutions include this level of general education. These disciplines are Social and Behavioral Sciences, Natural Science, English Composition and Literature, Foreign Language, Mathematics, Humanities and Fine Arts. Since master's degree programs do not usually include general education courses, master's level courses cannot be used to meet this requirement.

The general education courses completed by students who have earned Associate in Applied Science degrees and other degrees from non-U.S. institutions may not meet CLC's general education requirements. These students will be required to complete additional general education courses prior to receiving a certificate in Paralegal Studies if they have not had a sufficient number and variety of general education courses.

Therefore, CLC must review students' transcripts to determine whether they have met this general education requirement. To obtain the form, please visit [dept.clcillinois.edu/adr/Paralegal\\_Screening\\_Form.pdf](http://dept.clcillinois.edu/adr/Paralegal_Screening_Form.pdf).

Gainful Employment Information: [www.clcillinois.edu/gepls](http://www.clcillinois.edu/gepls)

For more information on recommended courses or program specific advising, contact the following faculty members or the Business and Social Sciences Division at (847) 543-2047:

Gayle Miller / Lorri Scott

## Phlebotomy Technician

Biological and Health Sciences Division, Room B213,  
(847) 543-2042

### Phlebotomy Technician (Certificate) Plan 21MP

This certificate prepares students for entry level competencies as phlebotomists in hospitals, clinics, blood banks, and other health care settings. Students will develop skills in performing phlebotomy procedures during on-campus training followed by a clinical practicum during which students spend eight hours a day, five days a week for three weeks (120 hours) at a clinical site during the daytime shift.

This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS):  
5600 N. River Road, Suite 720, Rosemont, IL 60018-5119,  
web: [www.naacls.org](http://www.naacls.org); phone (773) 714-8880;  
fax: (773) 714-8886; e-mail: [info@naacls.org](mailto:info@naacls.org).

Graduates of this program are eligible for registry by nationally recognized certifying agencies. A high school diploma (or equivalent) is required to take the certification exam.

This is not a limited enrollment program, however, seats fill quickly. Day and evening options are available.

#### Academic Program Entrance Requirements

- Demonstrate College Reading and Writing Readiness and Basic Algebra Readiness prior to enrolling in PBT 110
- If a student has a CLC GPA, it must be 2.0 or higher
- Be at least 18 years old
- Attend an information session (within 2 years)
- High school graduate; GED or equivalent; or associate degree or higher

#### Non-academic Program Entrance Requirements

Because of inherent requirements of the profession, the following minimum abilities, i.e. essential functions, are expected of the student:

- Psychomotor skills (eye-hand coordination and finger dexterity) sufficient for safe and successful practice of phlebotomy
- Visual acuity (normal or corrected vision) sufficient for safe and successful practice of phlebotomy
- Adequate English verbal and written communication skills to safely and successfully interact with peers, supervisors and other members of the health care team

Students must earn a minimum grade of “C” in each Phlebotomy course to be able to continue in and graduate from the program.

#### Required Coursework

PBT	110	Introduction to Medical Laboratory Technology .....	2
PBT	115	Phlebotomy Techniques .....	2
+ PBT	116	Phlebotomy Clinical .....	2

#### Total Hours for Certificate .....6

+ To be eligible to enroll in PBT 116 Phlebotomy Clinical, students must:

- Earn a grade of “C” or better in PBT 110 and PBT 115
- Have an overall CLC GPA of 2.0 or higher
- Provide proof that all immunizations required to satisfy the phlebotomy health requirements are completed
- Be aware that drug testing and a criminal background check may be required by the clinical sites
- Have permission of the department chair

For more information on recommended courses or program specific advising, contact faculty member Angela Norwood or the Biological and Health Sciences division at (847) 543-2042.

## Supply Chain Management

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### Supply Chain Management (Associate in Applied Science) Plan 22BO

#### *Pending ICCB/IBHE Approval*

This degree will provide students with the knowledge and skills for employment within the supply chain area. Supply Chain Management focuses on the flow of materials end-to-end beginning at customer service and procurement and ending with delivery to the customer. The coursework is designed for careers focused on procurement, inventory management, warehousing, distribution, logistics and transportation. This degree is focused on the front line worker and will provide a better understanding of how each of the areas affects the other and how to best achieve efficiency and profitability for the organization. Courses for this degree are offered online, hybrid, and in the classroom. Graduates of the degree program will be ready for front-line supervisory/team lead positions in warehouses, distribution centers, and operation centers. The AAS degree can be accomplished in a two year time frame. Grainger has generously supported the development of this program.

#### Required General Education Coursework .....15-16

MTH	122	College Algebra <i>or</i>	
AOS	122	Business Mathematics.....	3-4
CMM	121	Fundamentals of Speech.....	3
ENG	121	English Composition I .....	3
ENG	126	Advanced Composition: Scientific/Technical <i>or</i>	
AOS	111	Business Communication .....	3
HUM	127	Critical Thinking <i>or</i>	
PHI	125	Introduction to Ethics .....	3

#### Required Business Coursework .....15-17

ECO	221	Principles of Macroeconomics .....	3
ECO	222	Principles of Microeconomics .....	3
ACC	121	Financial Accounting <i>or</i>	
ACC	112	Accounting Procedures I.....	3-4
ACC	122	Managerial Accounting <i>or</i>	
BUS	111	Fundamentals of Finance .....	3-4
BUS	221	Business Law I .....	3

#### Required Supply Chain Coursework.....30

BUS	121	Introduction to Business.....	3
CIT	120	Introduction to Computers <i>or</i>	
CIT	119	Introduction to Office Software .....	3
SCM	215	Operations Management <i>or</i>	
BUS	215	Operations Management.....	3
BUS	115	Elements of Supervision <i>or</i>	
BUS	223	Principles of Management .....	3
SCM	110	Introduction to Supply Chain Management ..	3
SCM	115	Sourcing and Procurement .....	3
SCM	120	Inventory Management and Planning .....	3
SCM	125	Warehousing and Distribution .....	3
SCM	130	Logistics and Transportation .....	3
SCM	150	Supply Chain Management Internship.....	3

#### Total Hours for A.A.S. Degree .....60-63

### Introduction to Supply Chain Management (Certificate) Plan 22BP

#### *Pending ICCB Approval*

This certificate will provide students with the knowledge and skills for employment within the supply chain area. Supply Chain Management focuses on the flow of materials end-to-end beginning at customer service and procurement and ending with delivery to the customer. The coursework is designed for careers focused on procurement, inventory management, warehousing, distribution, logistics and transportation. This certificate is focused on the front line worker and will provide a better understanding of how each of the areas affects the other and how to best achieve efficiency and profitability for the organization. Courses for this certificate are offered online, hybrid, and in the classroom. The Introduction to Supply Chain Management certificate can be completed in two semesters and combined with general education requirements and additional program specific courses to earn an A.A.S. degree in Supply Chain Management. Grainger has generously supported the development of this program.

BUS	121	Introduction to Business.....	3
CIT	119	Introduction to Office Software <i>or</i>	
CIT	120	Introduction to Computers .....	3
SCM	215	Operations Management <i>or</i>	
BUS	215	Operations Management.....	3
BUS	115	Elements of Supervision <i>or</i>	
BUS	223	Principles of Management .....	3
SCM	110	Introduction to Supply Chain Management .....	3

#### Total Hours for Certificate .....15

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**Advanced Supply Chain Management  
(Certificate) Plan 22BQ**

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***Pending ICCB Approval***

This certificate will provide students with the knowledge and skills for employment within the supply chain area. Supply Chain Management focuses on the flow of materials end-to-end beginning at customer service and procurement and ending with delivery to the customer. The coursework is designed for careers focused on procurement, inventory management, warehousing, distribution, logistics and transportation. This certificate is focused on the front line worker and will provide a better understanding of how each of the areas affects the other and how to best achieve efficiency and profitability for the organization. Courses for this certificate are offered online, hybrid, and in the classroom. The Advanced Supply Chain Management certificate can be combined with general education requirements and additional program specific courses to earn an AAS degree in Supply Chain Management. Grainger has generously supported the development of this program.

BUS	121	Introduction to Business.....	3
CIT	119	Introduction to Office Software <i>or</i>	
CIT	120	Introduction to Computers .....	3
SCM	215	Operations Management <i>or</i>	
BUS	215	Operations Management.....	3
BUS	115	Elements of Supervision <i>or</i>	
BUS	223	Principles of Management .....	3
SCM	110	Introduction to Supply Chain Management .....	3
SCM	115	Sourcing and Procurement .....	3
SCM	120	Inventory Management and Planning .....	3
SCM	125	Warehousing and Distribution .....	3
SCM	130	Logistics and Transportation .....	3
SCM	150	Supply Chain Management Internship.....	3

**Total Hours for Certificate .....30**

For more information on recommended courses or program specific advising, contact the the Business and Social Sciences Division at (847) 543-2047.

### Surgical Technology

**Biological and Health Sciences Division, Room B213,  
(847) 543-2042**

This is a limited enrollment, day only program. Students are required to meet the screening requirements in effect at the time of screening. Students who screen and are accepted into a limited enrollment program will be required to complete the curriculum that is in place at the time of entrance into the program. If students who screen are not granted admission, they must rescreen and satisfy all screening and curriculum requirements in place for a future program start.

#### **Screening Deadline: First Wednesday in March**

Surgical technologists are allied health professionals who are integral to the surgical team. They assist in the decontamination and set up of the operating rooms for each procedure, organize the necessary surgical and sterile supplies and equipment, and maintain the quality, safety, and efficiency of the sterile field throughout the surgery.

Surgical technologists might also be involved in transporting patients to and from the operating room, assisting to position patients on the operating table, observing vital signs and checking charts.

During the surgery, technologists help the surgical team with sterile gowns and gloves, they anticipate the needs of the surgeon by watching and understanding the steps and progression of the surgical procedure. They are accountable for the care of surgical instrumentation and equipment before, during, and at the completion of surgical cases.

Graduates of the certificate program are qualified to take the Certified Surgical Technologist (CST) Examination given by the National Board of Surgical Technology and Surgical Assisting (NBSTSA). To complete an A.A.S., in addition to completion of the certificate program, students must complete the required general education courses. All course prerequisites must be met.

Upon acceptance into the program, students are required to undergo a background check and a urine drug screen. These will occur annually and the results of which may result in the student losing his/her seat in the program. The costs are borne by the student.

**To be considered for admission to the Surgical Technology Program, students must complete the following screening requirements prior to the screening deadline.**

**Students must have submitted the following documents to the Welcome and One-Stop Center:**

- A. Student Information Form
- B. **Official** high school transcript with graduation date OR **Official** GED test scores  
OR  
**Official** college transcripts with graduation date and degree awarded  
OR  
**Official** foreign high school or college transcript evaluated by a NACES approved agency
- C. Surgical Technology Program Request for Screening Form
- D. If using courses from another college to meet prerequisites or degree requirements, submit an official transcript to the Records Office. It is also highly recommended to submit a "Request for Evaluation of Prior College Transcripts" form.

**Minimum Selection Criteria: student records must indicate the following:**

- A. High school graduate or equivalent or high school senior in last term
- B. College Reading and Writing Readiness and Basic Algebra Readiness
- C. CLC Cumulative GPA is 2.0 or above
- D. NLN PAX with minimum acceptable RN percentile rank scores of 40 in the verbal and 40 in the math sections, and a composite percentile of 40 (within 3 years prior to the screening deadline)
- E. Attendance at a Surgical Technology Information Session (within two years of the screening deadline)

### Program Accreditation

The Association of Surgical Technologists (AST) requires that surgical technologists who are applying for certification for the first time must have completed their education in a program that is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The CLC surgical technology program is fully accredited by CAAHEP, 25400 U.S. Highway 19 North, Suite 158, Clearwater, FL 33763.

### Physical and Emotional Ability Performance Standards

Students must meet the physical and emotional ability standards listed below to satisfactorily perform in the Surgical Technology program. Students must:

- have full range of motion of joints, fine motor movements of the hands, ability to perform repetitive tasks and the ability to stoop, bend, twist, reach and occasionally kneel and squat.
- have the ability to lift and carry objects weighing up to 50 pounds.
- be able to push or pull a wheelchair, cart, or gurney.
- have adequate hearing which permits the individual to communicate in a rational and coherent manner with others in the English language.
- have the ability to examine closely images or other forms of output created by diagnostic equipment; must have color vision; must have good visual acuity for client assessment, checking medications, loading fine sutures, distinguishing and recognizing fine variations and differences in surgical instruments.
- adapt effectively to high stress environments to insure client safety.
- respond in an emotionally controlled manner in learning situations.
- be able to stand and walk 8 or more hours per clinical session.

Please contact the SRG department chair Soheila Kayoud at (847) 543-2776 if you have questions regarding your ability to meet these standards.

### Physical Demands for the Surgical Technology Program

- Constant (67 – 100%)
  - talking, seeing, and hearing
  - standing for prolonged periods
  - walking at average speed or faster
  - responding quickly to orders
  - manual dexterity
- Frequent (34 – 66%)
  - lifting and moving patients
  - kneeling, bending, stooping
  - pushing, pulling, reaching
  - refraining from nourishment
- Occasionally (10 – 33%)
  - exert up to 100 pounds of force

The number of students that may be admitted to clinical education courses is limited for any given term; therefore, a screening procedure is used to select the academically best qualified from among those who request consideration.

Preference is given to residents of Community College District 532 (CLC) and residents of other community college districts with which CLC has a Joint Education Agreement.

Students who live outside of CLC's district but are eligible for in-district tuition because they are employed by a district employer are NOT considered residents of the district for purposes of selection into the program.

**Note:** Applicants may take the NLN PAX exam once every 90 days (approximately three months). NLN PAX exam results that are less than 90 days between exams will not be considered. Scores used for screening into limited enrollment programs will be valid for only 3 years prior to a screening deadline. Scores older than 3 years will not be considered for screening. Visit [www.nlnonline.net/testing.org](http://www.nlnonline.net/testing.org) for available test dates and times or visit the Surgical Technology web page at [www.clcillinois.edu/programs/srg](http://www.clcillinois.edu/programs/srg). Instructions for registering for the test are available on the web page.

All required materials must be submitted to the Records Office by the screening deadlines.

If space is available in the program after the initial screening deadline, qualified students will be accepted in an order based on academic qualifications.

Students must maintain a minimum grade of "C" in each of the courses listed below to continue in and graduate from the program. In addition, students must maintain a CLC GPA of 2.0 or higher.

## Associate in Applied Science and Career Certificates

### Surgical Technology (Certificate) Plan 21SD

BIO	111	Human Form and Function <i>or</i>	
BIO	244	Anatomy and Physiology I <i>and</i>	
BIO	245	Anatomy and Physiology II	4-8
HIT	111	Medical Terminology	3
SRG	110	Introduction to Surgical Technology	6
SRG	111	Principles of Practice and Introduction to Surgical Procedures	7
SRG	112	Surgical Procedures I	6
SRG	113	Surgical Procedures II	6
SRG	114	Surgical Procedures III	3
SRG	115	Surgical Technology Internship	3
SRG	117	Surgical Pharmacology	3
SRG	119	Essentials of Microbiology <i>or</i>	
BIO	246	Microbiology	2-4

**Total Hours for Certificate** .....43-49

This certificate will give students the knowledge and skills necessary for employment as entry level scrub surgical technologists and to gain higher level employment in area hospitals and surgical supply businesses. Graduates of this program will be qualified to sit for the National Examination for the Certified Surgical Technologist (CST) Examination given by the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

After completion of the Surgical Technology certificate program (21SD), students may choose to earn the Associates in Applied Sciences in Surgical Technology (21SA) by taking the listed general education courses and SRG 118.

Gainful Employment Information: [www.clcillinois.edu/gesrg](http://www.clcillinois.edu/gesrg)

### Surgical Technology (Associate in Applied Science) Plan 21SA

**Completion of Surgical Technology  
Certificate (21SD)**.....43-49

**Required General Education Coursework** .....16

BIO	123	Principles of Biology	4
CMM	123	Dynamics of Small Group Discussion <i>or</i>	
CMM	128	Interviewing Practices	3
ENG	120	Technical Composition I <i>or</i>	
ENG	121	English Composition I	3
HUM	127	Critical Thinking	3
PSY	121	Introduction to Psychology	3

**Additional Required Coursework** .....3

SRG	118	Advanced Surgical Procedures	3
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**Total Hours for A.A.S. Degree** .....62-68

For more information on recommended courses or program specific advising, contact faculty member Soheila Kayoud or the Biological and Health Sciences division at (847) 543-2042.

## Sustainability Programs

**Engineering, Math and Physical Sciences Division**  
**Room T302, (847) 543-2044**

Sustainability programs provide a broad understanding of the natural world and how it relates to the built environment. Subject matter ranges from horticulture and environmental sciences to construction and engineering, including instruction on the LEED (Leadership in Energy and Environmental Design) Accredited Professional certification. Coursework prepares students for a wide range of occupations related to sustainability, as well as presents fundamental knowledge of environmental issues applicable to contemporary lifestyle and workforce trends.

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### **Alternative Energy Technologies** **(Certificate) Plan 24EN**

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This certificate provides entry level technical instruction on wind, solar and geothermal energy sources. Courses in this certificate may also apply to certificates specific to solar, wind or geothermal energy technologies.

EET	115	Electronic Laboratory Techniques .....	2
EET	170	DC Circuit Fundamentals .....	2
EET	174	AC Fundamentals .....	2
EET	130	Intro to Renewable Energy Sources .....	4
EET	230	Electrical Machinery .....	3
HET	291	Energy Auditing .....	4
ISE	114	National Electrical Code .....	2
MET	115	Industrial Pneumatics Hydraulics.....	3
MET	116	Machine Components and Repair .....	3

**Total Hours for Certificate .....25**

Gainful Employment Information: [www.clcillinois.edu/gesus](http://www.clcillinois.edu/gesus)

For more information about this program, please contact the Engineering, Mathematics and Physical Sciences division at (847) 543-2044.

## Teaching English to Speakers of Other Languages

Communication Arts, Humanities and Fine Arts Division  
Room B213, (847) 543-2040

### Teaching English to Speakers of Other Languages (TESOL) (Certificate) Plan 23TK

This certificate is intended for current teachers, native or non-native speakers, who wish to expand their professional opportunities and to enhance their teaching skills by adding a TESOL certificate to their portfolio and for college graduates and/or first time teachers interested in teaching English in a non-English speaking country; as well as for professionals interested in applying their skills in the field of English language teaching.

<b>Required General Education Coursework</b> .....	<b>12</b>
CMM 127 Intercultural Communication .....	3
EDU 121 Introduction to Teaching <i>or</i>	
PSY 121 Introduction to Psychology .....	3
ENG 127 Introduction to General Linguistics .....	3
ENG 128 Linguistics and Society .....	3

<b>Required Specialty Coursework</b> .....	<b>18</b>
ENG 261 Methods of Teaching ESL .....	3
ENG 262 Theories of Teaching ESL and Bilingual Education.....	3
ENG 265 Grammar for English Language Teachers ....	3
ENG 267 Phonetics and Phonology for English Language Teachers .....	3
ENG 268 Assessment of the English Language Learner .....	3
ENG 271 Teaching English to Speakers of Other Languages Practicum .....	3

**Total Hours for Certificate** .....**30**

Gainful Employment Information: [www.clcillinois.edu/geesl](http://www.clcillinois.edu/geesl)

### Teaching English Learners (TEL) (Certificate) Plan 23TN

This 18-hour Core Certificate in Teaching English Learners is intended for certified teachers who wish to expand their professional opportunities and to enhance their teaching skills by adding a TEL Core certificate to their portfolio. The coursework for this certificate satisfies the requirements of the ISBE ESL endorsement, including the 100 hours of clinical experience. This endorsement allows certified teachers to teach ESL in grades they are certified to teach. Applicants must complete an application to the State to have this endorsement put on their teaching certificates.

<b>Required Coursework</b> .....	<b>15</b>
CMM 127 Intercultural Communication .....	3
ENG 128 Linguistics and Society .....	3
ENG 261 Methods of Teaching ELLs .....	3
ENG 262 ELL/Bilingual Education Theory .....	3
ENG 268 Assessment of ELLs .....	3

<b>Elective Coursework</b> .....	<b>3</b>
ENG 127 Intro to General Linguistics <i>or</i>	
ENG 265 Teaching Grammar to ELLs <i>or</i>	
ENG 267 Teaching Pronunciation to ELLs .....	3

**Total Hours for Certificate** .....**18**

### Teaching English as a Foreign Language (Certificate) Plan 23TO

This 12-hour certificate is intended for those who wish to expand their professional opportunities and to enhance their teaching skills by adding a Teaching English as a Foreign Language (TEFL) certificate to their portfolio. TEFL Certificates are often required to teach English in non-English speaking countries around the world.

ENG 272 Principles and Practices in Foreign Language Teaching .....	3
ENG 273 English Language: Structure and Use .....	3
ENG 274 Teaching English as a Foreign Language Pedagogy .....	3
ENG 275 Language Teaching Fieldwork .....	3

**Total Hours for Certificate** .....**12**

For more information on recommended courses or program specific advising, contact the following faculty members or the Communication Art, Humanities and Fine Arts division at (847) 543-2040:

Joyce Gatto / Jacinta Thomas

## Technical Communication

**Communication Arts, Humanities and Fine Arts Division  
Room B213, (847) 543-2040**

Technical communicators are employed in a wide variety of occupational areas to produce the written documentation required at each step of the manufacturing process. They provide the communication links between divergent technical specialties as well as between different levels of technical expertise. This program offers training in both communication skills and technical skills. These skills may be gained two ways: by specializing in communications and electing a technical area or areas, or by specializing in a technical area and electing communications courses.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

### Technical Communication (Associate in Applied Science) Plan 23TA

#### Required General Education Coursework .....15-16

CMM 121	Fundamentals of Speech <i>or</i>	
CMM 128	Interviewing Practices .....	3
ENG 121	English Composition I .....	3
HUM 127	Critical Thinking <i>or</i>	
PHI 122	Logic <i>or</i>	
	Humanities or Fine Arts Elective* .....	3
MTH 117	Technical Mathematics I <i>or</i>	
MTH 122	College Algebra <i>or</i>	
MTH 141	Quantitative Literacy.....	3-4
PSY 122	Psychology of Business and Industry .....	3

#### Required English Coursework .....12-13

ENG 113	Technical Communication Practicum <i>or</i>	
EWE 220	Cooperative Work Experience I <i>and</i>	
ENG 266	Professional Communication .....	3-4
ENG 120	Technical Composition I .....	3
ENG 126	Advanced Composition: Scientific and Technical Communications .....	3
ENG	Elective (see list below) .....	3

#### Required Technical Communications Coursework.....11-12

AOS 113	Comprehensive Word Processing <i>or</i>	
ART 271	Introduction to Electronic Graphic Publishing .....	3
CIT	Elective <i>or</i>	
DMD 116	Web Design and Development.....	3
ART 111	Printing Production.....	3
ART 129	Introduction to Photography I <i>or</i>	
ART 222	Computer Art I <i>or</i>	
EGR 121	Engineering Graphics <i>or</i>	
ELT 111	Electronic Drafting .....	2-3

#### Additional Required Coursework.....6-7

MTH 118	Technical Mathematics II <i>or</i>	
MTH 123	Trigonometry <i>or</i>	
MTH	Elective (higher than MTH 123)*.....	3-4
	Social Science Elective* .....	3

#### Required Technical Specialty Coursework .....16

Choose technical specialty electives from fields such as advertising, data processing, electronics, engineering, publicity or public relations, sales management, sales promotion, or software development.

Select a minimum of 16 hours from the following courses:

* BUS 121, 122, 212, 213, 214, 221, 270	
CIT 111, 112, 119, 170, 211, 239	
DMD 111, 115, 116, 174, 218, 219, 273, 279	
EIT 111, 210, 211	
EGR 121	
ELT 111	
HIT 111, 113, 114, 116, 172, 174, 217	
MTH 114, 115, 117, 118	
PLS 110, 112, 212	

#### Total Hours A.A.S. Degree.....60-64

#### ENG Electives

ENG 122	English Composition II .....	3
ENG 124	Newswriting I.....	3
ENG 137	Document Design in Technical Writing .....	3
ENG 220	Introduction to Scriptwriting for Video, TV and Film.....	3
ENG 222	Creative Writing I.....	3
ENG 224	Creative Writing II .....	3

\* Students interested in careers in advertising, sales management, sales promotion, publicity or public relations should select these courses.

#### Choosing a Dual Degree

A student may elect to receive two Associate Degrees, one in Technical Communication and one in a technical field (such as electronics, engineering, etc.). This option is possible because many of the same general education courses are required in both programs and because 15-20 credit hours of technically specialized courses count towards the A.A.S. in Technical Communication. Thus, a student may earn this degree in connection with another degree program by adding the necessary written communications and graphics courses. See a counselor or advisor for more information.

## Associate in Applied Science and Career Certificates

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### Technical Communication

#### (Certificate) Plan 23TG

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ART	111	Printing Production.....	3
ART	222	Computer Art I .....	3
CMM	128	Interviewing Practices .....	3
DMD	116	Web Design and Development.....	3
ENG	113	Technical Communication Practicum .....	3
ENG	120	Technical Composition I .....	3
ENG	121	English Composition I .....	3
ENG	126	Advanced Composition: Scientific and Technical Communication.....	3
ENG	266	Professional Communication .....	3
		Technical Specialty Elective .....	3

**Total Hours for Certificate .....30**

Gainful Employment Information: [www.clcillinois.edu/getec](http://www.clcillinois.edu/getec)

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### Professional Technical Communication

#### (Certificate) Plan 23TI

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This certificate is appropriate for students who have already completed a degree in another field, and wish to retrain and re-enter the job force.

ART	111	Printing Production.....	3
DMD	116	Web Design and Development.....	3
ENG	113	Technical Communication Practicum .....	3
ENG	120	Technical Composition I .....	3
ENG	126	Advanced Composition: Scientific and Technical Composition .....	3
ENG	266	Professional Communication .....	3

**Total Hours for Certificate .....18**

Gainful Employment Information: [www.clcillinois.edu/getec](http://www.clcillinois.edu/getec)

For more information on recommended courses or program specific advising, contact faculty member Lori Allen or the Communication Arts, Humanities and Fine Arts division at (847) 543-2040.

# Welding

Engineering, Math and Physical Sciences Division  
Room T302, (847) 543-2044

## Welding (Certificate) Plan 24WL

This certificate program and the specialty certificates prepare the student for employment and advancement in welding and welding related occupations. Advanced standing in the program can be arranged for experienced welders.

MET 112	Basic Metallurgy .....	3
MET 113	Basic Metallurgy II <i>or</i>	
MET 111	Manufacturing Processes .....	3
MTH 114	Applied Mathematics I.....	3
WLD 113	Welding Blueprint Reading .....	3
WLD 117	Applied Fabricating and Processing.....	3
WLD 170	General Welding.....	3
WLD 171	Gas Welding, Cutting and Brazing.....	3
WLD 172	Shielded Metal Arc Welding .....	3
WLD 174	Advanced Shielded Metal Arc Welding.....	3
WLD 175	Gas Metal Arc Welding .....	3
WLD 176	Welding Certification .....	3
WLD 178	Gas Tungsten Arc Welding.....	3
WLD 179	Gas Tungsten Arc Welding II.....	3
	Technical Elective* .....	2-3

**Total Hours for Certificate .....41-42**

### Welding Electives

Select 2-3 hours from the list below with advisor approval:

CAD 110	CAD/CAM Concepts .....	3
EET 170	DC Circuit Fundamentals.....	2
EGR 121	Engineering Graphics.....	3
ELC 172	Applied AC Circuit Theory .....	2
EWE 220	Cooperative Work Experience I.....	3
MTT 111	Machine Shop I .....	3

Gainful Employment Information: [www.clcillinois.edu/gewld](http://www.clcillinois.edu/gewld)

The following three specialty certificates allow students to attain proficiency to meet more specific job requirements or career objectives in welding and welding related occupations.

## Gas Tungsten Arc Welding (Certificate) Plan 24WM

MTH 114	Applied Mathematics I.....	3
WLD 113	Welding Blueprint Reading .....	3
WLD 117	Applied Fabricating and Processing.....	3
WLD 170	General Welding.....	3
WLD 171	Gas Welding, Cutting and Brazing.....	3
WLD 176	Welding Certification .....	3
WLD 178	Gas Tungsten Arc Welding.....	3
WLD 179	Gas Tungsten Arc Welding II.....	3

**Total Hours for Certificate .....24**

Gainful Employment Information: [www.clcillinois.edu/gewld](http://www.clcillinois.edu/gewld)

## Gas Metal Arc Welding (Certificate) Plan 24WN

MTH 114	Applied Mathematics I.....	3
WLD 113	Welding Blueprint Reading .....	3
WLD 117	Applied Fabricating and Processing.....	3
WLD 170	General Welding.....	3
WLD 175	Gas Metal Arc Welding .....	3
WLD 176	Welding Certification .....	3

**Total Hours for Certificate .....18**

Gainful Employment Information: [www.clcillinois.edu/gewld](http://www.clcillinois.edu/gewld)

## Shielded Metal Arc Welding (Certificate) Plan 24WO

MTH 114	Applied Mathematics I.....	3
WLD 113	Welding Blueprint Reading .....	3
WLD 117	Applied Fabricating and Processing.....	3
WLD 170	General Welding.....	3
WLD 172	Shielded Metal Arc Welding .....	3
WLD 174	Advanced Shielded Metal Arc Welding.....	3
WLD 176	Welding Certification .....	3

**Total Hours for Certificate .....21**

Gainful Employment Information: [www.clcillinois.edu/gewld](http://www.clcillinois.edu/gewld)

For more information on recommended courses or program specific advising, contact faculty member Gary Merriman or the Engineering, Math and Physical Science division at (847) 543-2044.

## Schedule of Classes

This catalog lists courses the College of Lake County intends to offer. Inclusion of a course description does not obligate the college to offer the course in any particular semester. Students are referred to the appropriate class schedule each semester for specific and current information. Prior to each registration period, the class schedule is posted online at [www.clcillinois.edu/classes](http://www.clcillinois.edu/classes).

## Course Numbering

Courses are listed in numerical order by course number within each subject area. All courses, unless otherwise indicated, can be completed within the semester. Students should consult with a counselor or an advisor for the most efficient sequence of courses toward a degree or certificate.

Courses with a PCS of 1.1 are Baccalaureate/Transfer courses. These courses have been articulated according to the standards of the Illinois Community College Board. To ensure a specific course is transferable, students are urged to consult with:

- the senior institutions of interest
- the transfer information on the CLC website
- a CLC counselor or advisor

Courses with a PCS of 1.2 are Occupational/Technical courses. Policies concerning the transferability of some of these courses to senior colleges and universities vary. Students are urged to consult with:

- the senior institutions of interest
- the transfer information on the CLC website
- a CLC counselor or advisor

Courses with a PCS of 1.4 indicate Remedial/Developmental coursework and are designed to prepare students for enrollment in courses at the career or transfer level. These courses do not apply toward a college degree or career certificate and are not used to compute grade point average. Courses with a PCS of 1.6 are vocational courses.

Courses with a PCS of 1.7, 1.8 and 1.9 indicate adult education. Courses with a PCS of 1.3 indicate community education (non-credit) and courses with a PCS of 1.5 indicate general studies coursework.

## Prerequisites and Corequisites

To help ensure success in their courses, students must carefully observe requirements that may be placed on enrollment. The College of Lake County uses two types of requirements on enrollment in courses.

*Prerequisites* are other courses, knowledge, skills, or permission that must be obtained or completed before a student enrolls in a course. Students who believe they possess equivalent knowledge or skills through prior coursework or experience should see the appropriate division office.

*Corequisites* are other courses, knowledge, skills, or permissions that must be taken or acquired either concurrently with or previous to the course in question.

## Course Information and Descriptions

### Course Discipline/Prefix Reference

Course descriptions are organized alphabetically by prefix in the following section. The list below shows both the discipline and course prefix for cross reference.

Accounting (**ACC**)  
Administrative Office Systems (**AOS**)  
Adult Basic Education (**ABE**)  
Adult Language Education (**ALE**)  
Adult Secondary Education (**ASE**)  
Agriculture (**AGR**)  
Anthropology (**ANT**)  
Arabic (**ARA**)  
Architectural Technology (**ARC**)  
Art (**ART**)  
Asian/Asian American Studies (**ASI**)  
Automation, Robotics and Mechatronics (**ARM**)  
Automotive Collision Repair (**ACR**)  
Automotive Technology (**AUT**)  
Biology (**BIO**)  
Business Administration (**BUS**)  
Chemistry (**CHM**)  
Chinese (**CHI**)  
Civil Technology (**CIV**)  
Communication (**CMM**)  
Computer Aided Design (**CAD**)  
Computer Information Technology (**CIT**)  
Computerized Numerical Control (**CNC**)  
Construction Management Technology (**CMT**)  
Criminal Justice (**CRJ**)  
Dance (**DNC**)  
Dental Hygiene (**DHY**)  
Digital Media and Design (**DMD**)  
Early Childhood Education (**ECE**)  
Earth Science (**ESC**)  
Economics (**ECO**)  
Education (**EDU**)  
Educational Work Experience (**EWE**)  
Electrical Technology (**ELC**)  
Electrical Engineering Technology (**EET**)  
Electrician Apprenticeship (**EAP**)  
Electronic Information Technology (**EIT**)  
Electronics Engineering Technology (**ELT**)  
Emergency and Disaster Management (**EDM**)  
Emergency Medical Technology (**EMT**)  
Engineering (**EGR**)  
English (**ENG**)  
English Language Instruction (**ELI**)  
English as a Second Language (**ESL**)  
Fire Science Technology (**FST**)  
French (**FRN**)  
Gender and Sexuality Studies (**GXS**)  
Geography (**GEG**)  
German (**GER**)  
Health Information Technology (**HIT**)  
Health and Wellness Promotion (**HWP**)  
Health Care Bridge Program (**BRGA**)  
Heating and Air Conditioning Engineering  
Technology (**HET**)  
History (**HST**)  
Horticulture (**HRT**)  
Hospitality and Culinary Management (**HCM**)  
Human Services (**HUS**)  
Humanities (**HUM**)  
Industrial Electrician (**ISE**)  
International Studies (**SSI**)  
Italian (**ITL**)  
Japanese (**JPN**)  
Laser/Photonics/Optics (**LPO**)  
Latin American Studies (**LAT**)  
Liberal Arts and Science (**LAS**)  
Library Science (**LSC**)  
Library Technical Assistant (**LTA**)  
Machine Tool Trades (**MTT**)  
Massage Therapy (**MAS**)  
Math Computer Science (**MCS**)  
Mathematics (**MTH**)  
Mechanical Engineering Technology (**MET**)  
Medical Assisting (**MOA**)  
Medical Imaging (**MIM**)  
Music (**MUS**)  
Nanoscience Technology (**NAN**)  
Nursing (**NUR**)  
Paralegal Studies (**PLS**)  
Personal Development (**PDS**)  
Philosophy (**PHI**)  
Phlebotomy (**PBT**)  
Physical Education (**PED**)  
Physics (**PHY**)  
Political Science (**PSC**)  
Psychiatric Rehabilitation (**PRS**)  
Psychology (**PSY**)  
Retail Management (**RMC**)  
Russian (**RUS**)  
Science Electives (**SCI**)  
Sign Language (**SGN**)  
Social Studies Topics (**SST**)  
Social Work (**SWK**)  
Sociology (**SOC**)  
Spanish (**SPA**)  
Spanish Adult Education (**SAE**)  
Supply Chain Management (**SCM**)  
Surgical Technology (**SRG**)  
Theatre (**THE**)  
Vocational Skills Training (**VST**)  
Welding (**WLD**)

Continuing Education Courses



## Course Information and Descriptions

### Gender and Sexuality

GXS 121	Introduction to Gender Studies I	IAI Code S9 900
GXS 229	Sex, Gender and Power	S7 904D

### History

HST 121	History of Western Civilization to 1500	IAI Code S2902
HST 122	History of Western Civilization from 1500	S2903
HST 126	History of Non-Western World since 1500	S2905N
HST 127	History of Chinese Culture and Society	S2914N
HST 128	Modern History of the Middle East	S2919N
HST 221	U.S. History to 1876	S2900
HST 222	United States History 1876 to Present	S2901
HST 245	History of Latin America I to 1825	S2910N
HST 246	History of Latin America II from 1825	S2911N

### Humanities

HUM 121	Humanities: Ancient Times to the Middle Ages	IAI Code HF902
HUM 122	Humanities: Renaissance to the Present	HF903
HUM 123	Introduction to Film	F2908
HUM 126	Introduction to the Performing Arts	F9900
HUM 127	Critical Thinking	H4906
HUM 128	Introduction to Middle-Eastern Civilizations	H2903N
HUM 129	Introduction to East Asian Civilization	HF904N
HUM 140	Introduction to International Film	F2909
HUM 141	World Humanities of 20/21 Century	HF904N
HUM 221	American Decades	HF906D
HUM 222	Film and Society	F2908
HUM 226	Women and the Arts	HF907D

### Italian

ITL 222	Intermediate Italian II	IAI Code H1900
ITL 223	Italian Civilization I	H1900

### Japanese

JPN 222	Intermediate Japanese II	IAI Code H1900
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### Math

MTH 127	Finite Mathematics I	IAI Code M1906
MTH 140+	Contemporary Math	M1904
MTH 141+	Quantitative Literacy	M1901
MTH 142	General Education Statistics	M1902
MTH 145	Calculus and Analytic Geometry I	M1900-1
MTH 146	Calculus and Analytic Geometry II	M1900-2

+ MTH 140 and MTH 141 do not fulfill the general education mathematics requirements in Associate in Science degrees.

### IAI Code

MTH 221	Mathematics for Elementary Teaching II	M1903
MTH 222	Business Statistics	M1902
MTH 224	Calculus for Business and Social Sciences	M1900-B
MTH 244	Discrete Mathematics	M1905
MTH 246	Calculus and Analytic Geometry III	M1900-3

### Music

MUS 124	Music Appreciation	IAI Code F1900
MUS 224	Music Literature	F1902

### Philosophy

PHI 121	Introduction to Philosophy	IAI Code H4900
PHI 122	Logic	H4906
PHI 123	Philosophy of Religion	H4905
PHI 125	Introduction to Ethics	H4904
PHI 126	World Religions	H5904N
PHI 221	Asian Philosophy	H4903N

### Physics

PHY 120	Practical Aspects of Physics	IAI Code P1901L
PHY 121	General Physics I	P1900L
PHY 123	Physics for Science and Engineering I	P2900L

### Political Science

PSC 121	American National Politics	IAI Code S5900
PSC 122	State and Local Politics	S5902
PSC 221	Comparative Political Systems	S5905
PSC 222	International Relations	S5904

### Psychology

PSY 121	Introduction to Psychology	IAI Code S6900
PSY 220	Lifespan Development	S6902
PSY 222	Child Growth and Development	S6903
PSY 225	Social Psychology	S8900
PSY 226	Adolescent Development	S6904

### Russian

RUS 222	Intermediate Russian II	IAI Code H1900
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### Sociology

SOC 121	Introduction to Sociology	IAI Code S7900
SOC 222	Social Problems	S7901
SOC 224	Sociology of the Family	S7902
SOC 225	Class, Race and Gender	S7903D
SOC 229	Sex, Gender and Power	S7904D

### Spanish

SPA 222	Intermediate Spanish II	IAI Code H1900
SPA 223	Spanish Civilization I	H1900
SPA 224	Spanish Civilization II	H1900

### Theatre

THE 121	Introduction to Theatre I	IAI Code F1907
THE 123	Diversity in American Theatre	F1909D

## Course Information and Descriptions

### College of Lake County's Major IAI Courses

The chart below shows CLC's transfer courses that meet IAI (Illinois Articulation Initiative) core curriculum for specific transfer majors developed to date. IAI major course codes follow the CLC title. Course descriptions in this section also included IAI codes as appropriate.

<b>Accounting</b>		<b>IAI Code</b>	<b>English (See Mass Communication)</b>		
ACC 121	Financial Accounting	BUS 903			
ACC 122	Managerial Accounting	BUS 904	<b>Horticulture (See Agriculture)</b>		
<b>Agriculture</b>		<b>IAI Code</b>	<b>Mass Communication</b>	<b>IAI Code</b>	
HRT 121	Introduction to Horticulture	AG 905	BUS 214	Advertising	MC 912
<b>Biology</b>		<b>IAI Code</b>	ENG 123	Mass Communications	MC 911
BIO 161	General Biology I	BIO 910	ENG 124	Newswriting I	MC 919
BIO 162	General Biology II	BIO 910	<b>Math Computer Science</b>		<b>IAI Code</b>
<b>Business Administration</b>		<b>IAI Code</b>	MCS 140	Computer Programming for Engineering and Science	CS 911
CIT 120	Introduction to Computers	BUS 902	MCS 141	Computer Science I	CS 911
MTH 222	Business Statistics	BUS 901	MCS 142	Computer Science II	CS 912
<b>Chemistry</b>		<b>IAI Code</b>	MTH 244	Discrete Mathematics	CS 915
CHM 121	General Chemistry I	CHM 911	<b>Math</b>		<b>IAI Code</b>
CHM 123	General Chemistry II	CHM 912	MTH 145	Calculus and Analytic Geometry I	MTH 901
CHM 222	Organic Chemistry I	CHM 913	MTH 146	Calculus and Analytic Geometry II	MTH 902
CHM 223	Organic Chemistry II	CHM 914	MTH 225	Introduction to Linear Algebra	MTH 911
<b>Computer Information Technology</b>		<b>IAI Code</b>	MTH 227	Ordinary Differential Equations	MTH 912
CIT 141	Programming in C++	CS 911	MTH 246	Calculus and Analytic Geometry III	MTH 903
CIT 241	Advanced C++	CS 912	<b>Psychology</b>		<b>IAI Code</b>
MTH 244	Discrete Mathematics	CS 915	PSY 223	Abnormal Psychology	PSY 905
<b>Criminal Justice</b>		<b>IAI Code</b>	PSY 225	Social Psychology	PSY 908
CRJ 121	Introduction to Criminal Justice	CRJ 901	<b>Theatre</b>		<b>IAI Code</b>
CRJ 123	Introduction to Criminology	CRJ 912	CMM 124	Oral Interpretation	TA 916
CRJ 124	Introduction to Corrections	CRJ 911	THE 125	Principles of Acting	TA 914
CRJ 229	Juvenile Delinquency	CRJ 914	THE 126	Stagecraft	TA 911
<b>Engineering</b>		<b>IAI Code</b>			
EGR 121	Engineering Design Graphics	EGR 941			
EGR 125	Engineering Statics	EGR 942			
EGR 221	Statics and Dynamics	EGR 944			
EGR 222	Engineering Mechanics of Materials	EGR 945			
EGR 225	Engineering Dynamics	EGR 943			
EGR 260	Introduction to Circuit Analysis	EGR 931L			

## Course Information and Descriptions

### Sample Course Listing

#### ACC 111 Office Accounting (3-0) 3 hours

course prefix	course number	course title	hours of lecture per week	hours of lab per week	semester hours of credit
ACC	111	Office Accounting	3	0	3

This course is an introduction to basic office accounting procedures. Principles and concepts of basic accounting are introduced. (1.2)

#### The number code at the end of each course description has the following meaning:

- 1.1 – Baccalaureate/Transfer course
- 1.2 – Occupational/Technical course – not intended for transfer; however, some courses may transfer.
- 1.4, 1.5, 1.6, 1.7, 1.8 – Developmental or general studies credit – not intended for transfer and not applicable to any degree.

#### IAI S1 900N - Illinois Articulation Initiative (IAI) Number

#### ACC 114 Payroll Accounting (2-0) 2 Hours

This course is a practical study of current social security, income tax, employment and unemployment laws and their effect on basic payroll accounting systems. Course coverage includes the preparation of payroll records and tax returns. (1.2)

*Prerequisite:* ACC 112 (C or better) or higher level financial accounting course

*Course fee*

*Typically offered spring only*

#### ACC 121 Financial Accounting (4-0) 4 Hours

This is an introductory course focusing on financial reporting for external users. Course coverage includes basic accounting principles, the accounting cycle with an emphasis on transaction analysis, and financial statements. Specific course topics include the valuation and reporting of cash, receivables, inventory, long-term assets, current and long-term liabilities and stockholders' equity. (1.1)

*Prerequisites:* College Reading and Writing Readiness AND AOS 122 or MTH 102 or MTH 105 (all C or better) or higher math course or appropriate score on the Math Placement Test

*Recommended:* BUS 121

*Course fee*

**IAI: BUS 903**

#### ACC 122 Managerial Accounting (4-0) 4 Hours

This introductory course in managerial accounting focuses on internal planning and control. Emphasis is on identifying and applying relevant accounting and financial information for management decisions. Topical areas include product costing, operational control, cost allocation, capital budgeting, profit planning, performance reporting, and variance analysis. (1.1)

*Prerequisite:* ACC 113 or ACC 121 (either C or better)

*Recommended:* CIT 119 or CIT 120

*Course fee*

**IAI: BUS 904**

## Accounting (ACC)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

#### ACC 112 Accounting Procedures I (3-0) 3 Hours

This course is an introduction to basic accounting procedures. Emphasis is on the processing of financial transactions through the accounting cycle. Additional topics include accounting for merchandising entities, cash, and payroll. (1.2)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 AND Basic Algebra Readiness  
*Course fee*

#### ACC 113 Accounting Procedures II (3-0) 3 Hours

This course focuses on the analysis of financial statements by studying the individual components of those statements and how they are accounted for. Specifically the course will cover the accounting for cash, receivables, inventory, plant assets, debt and equity for both corporations and partnerships, as well as financial statement analysis and the statement of cash flows. Upon completion of the course, students will be able to interpret financial statements of businesses/corporations in order to assist them in making more informed business/financial decisions. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND ACC 112 (C or better) or higher level financial accounting course  
*Course fee*

*Typically offered fall and spring only*

#### ACC 171 Introduction to QuickBooks (2-0) 2 Hours

This course provides an introduction to QuickBooks. Topics covered include company set up, processing transactions through the accounting cycle, merchandising transactions, banking and payroll. (1.2)

*Prerequisites:* ACC 112 or ACC 121 (either C or better) AND - CIT 119 or CIT 120 (either C or better) OR consent of department chair

*Course fee*

*Typically offered spring only*

#### ACC 172 Capstone Experience: Accounting Clerk (1-0) 1 Hour

Students in this course will complete a capstone project consisting of a comprehensive accounting practice set and end of project evaluation. Completing and reporting on this practice set will give students the opportunity to synthesize and put into practice the knowledge and skills acquired in all other courses in the Accounting Clerk Certificate program. (1.2)

*Prerequisite or Corequisite:* ACC 113, ACC 114, ACC 171, AOS 111, AOS 122, CIT 111, and CIT 119

*Course fee*

*Typically offered spring only*

**ACC 212 Federal Tax Accounting I (3-0) 3 Hours**

Federal Tax Accounting I involves the practical study of Federal Tax Law as related to the individual and sole proprietorship. Topics covered include history of Federal Income Tax, Personal and Dependency Exemptions, Cash and Accrual Methods, Gross Income inclusions and exclusions, Depreciation Methods, Property Transactions, Realization and Recognition of Gain or Loss, Deductions for and from Adjusted Gross Income (AGI), Itemized Deductions, Passive Activity rules and Tax Credits. (1.2)

*Prerequisite:* ACC 113 or ACC 121 (both C or better)

*Course fee*

*Typically offered fall and summer only*

**ACC 213 Federal Tax Accounting II (3-0) 3 Hours**

This course is an introduction to corporate, partnership, trust, estate and exempt entity taxation. The overall emphasis of the course is on the taxation of corporations and flow-through entities. The student will also become familiar with various related subjects including Alternative Minimum Tax, Accumulated Earnings Tax, Gift and Estate Tax and International Taxation. (1.2)

*Prerequisite:* ACC 212 (C or better)

*Course fee*

*Typically offered spring only*

**ACC 214 Cost Accounting (3-0) 3 Hours**

Cost Accounting as a tool for management is emphasized throughout the course. Students will study topics such as cost-volume-profit relationships, budgeting, standard costs, responsibility accounting and job-order and process costing. Traditional methodology is emphasized. Contemporary methodology and concepts relating to ABC and JIT accounting are introduced. (1.1)

*Prerequisite:* ACC 122 (C or better)

*Course fee*

*Typically offered spring only*

**ACC 221 Intermediate Accounting I (4-0) 4 Hours**

An intensive study of financial accounting theory and procedures involving the topical areas of accounting standards and theory development, the statements of income, retained earnings, and financial position, time value of money, cash, receivables, inventory, plant assets, depreciation, intangible assets and current liabilities. Grade of "B" or better in Financial and Managerial Accounting (ACC121 and ACC122) is recommended, grade of "C" or better is required. (1.1)

*Prerequisite:* ACC 122 (C or better)

*Course fee*

*Typically offered fall and spring only*

**ACC 222 Intermediate Accounting II (4-0) 4 Hours**

An intensive continuation of the study of financial accounting theory and procedures involving the topical areas of accounting for long term liabilities, shareholder equity, investments, revenue recognition, financial analysis, preparation of the Statement of Cash Flows, accounting for income taxes, pensions, leases, changes and errors, and disclosure. (1.1)

*Prerequisite:* ACC 221 (C or better)

*Course fee*

*Typically offered spring only*

**ACC 251 Financial Accounting Research (1-0) 1 Hour**

This course is an introduction to the research process as it applies to financial accounting. The primary focus will be on the use of an Internet based research system to obtain authoritative evidence to support answers to accounting questions. (1.2)

*Corequisite:* ACC 222

*Typically offered summer only*

**ACC 252 Research Topics in Taxation (1-0) 1 Hour**

This course summarizes the art of navigating the federal income tax laws, as well as other authoritative literature, and developing a supportable conclusion to tax issues that do not possess definitive answers. This course will expose students to a variety of tax authoritative documents, as well as their citations. Students will be trained to use tax research software and will ultimately be assessed on their ability to create and communicate defensible tax positions. (1.2)

*Corequisite:* ACC 213

*Typically offered summer only*

**ACC 270 Advanced Accounting (4-0) 4 Hours**

Advanced accounting includes the study of accounting theory and practice as it relates to business combinations and consolidated financial statements, accounting and reporting for governmental and not for profit organizations, and the accounting for equity transactions for partnerships. This course is recommended for students who plan to sit for the CPA exam and practicing accountants needing further study of the above described topics. (1.2)

*Prerequisite:* ACC 222 (C or better) OR ACC 221 (B or better) and concurrent enrollment in ACC 222.

*Typically offered spring only*

**ACC 271 Auditing (3-0) 3 Hours**

An intensive study of theory and procedures applied in the performance of an audit including the topical areas of audit reporting, auditing standards and evidence, components of audit risk, and the evaluation and impact of internal control environment and information systems. The legal, ethical and regulatory dimensions will be examined with emphasis on how government affects auditing and financial reporting through Sarbanes-Oxley Act and other relevant acts. (1.2)

*Prerequisite:* ACC 222 (C or better) OR ACC 221 (B or better) and concurrent enrollment in ACC 222.

*Typically offered fall only*

**ACC 299 Special Topics in Accounting (Variable) 1-6 Hours**

This course is designed to allow students to study a topic or topics that are not a part of the existing curriculum. Topics identified will be current or emerging topics within the accounting profession or topics that provide additional depth within an accounting specialty area. This course may be repeated for up to a total of six credit hours. (1.2)

*May be taken four times, but any topic only once*

# Administrative Office Systems (AOS)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### **AOS 111 Business Communication (3-0) 3 Hours**

This course is designed to improve communication skills and prepare students for success in a team environment. Students will learn how to write clearly and concisely. Topics include a review of punctuation, document formatting and techniques in composing effective business letters, memoranda, reports, employment letters, resumes, and working with electronic messages and digital media. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

### **AOS 112 Computer Basics/Software Applications (3-0) 3 Hours**

This course provides a comprehensive study of the use of computers and technologies. Class topics include computer hardware, software, operating systems, and electronic communications such as email, the Internet, and networks. Students will have an opportunity to analyze computer-purchasing strategies, as well as acquire knowledge on data security and storage. Hands-on software experience will be provided utilizing Word, Excel, Access, PowerPoint, the Internet, and email. (1.2)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Course fee*

### **AOS 113 Comprehensive Word Processing (3-0) 3 Hours**

This is a comprehensive course in the use of word processing software on a computer. Topics include entering, editing, formatting, saving, retrieving, using writing tools, and printing. Advanced and specialized topics to be covered include tables, merge, macros, outlining, templates, styles, themes, footnotes/endnotes, headers/footers, and graphics. Several projects will be completed during the semester. (1.2)

*Course fee*

### **AOS 114 Outlook (1-0) 1 Hour**

In this course, students will learn the features of Microsoft Outlook software. Topics covered include using Outlook for e-mail, using the Calendar feature to schedule events and appointments, entering and editing contacts, and creating and updating tasks and notes. Several projects will be completed during the semester. (1.2)

*Course fee*

### **AOS 118 Advanced Word Processing/Desktop Publishing (3-0) 3 Hours**

In this course students will gain an understanding of desktop publishing concepts using Word and Publisher applications. Topics covered include desktop publishing terminology, graphics, typestyles, styles, design principles, forms creation, and web publishing and storage. Students will produce and assemble a portfolio of their work including business cards, flyers, brochures, and newsletters that combine text with graphics. (1.2)

*Prerequisite:* AOS 113 or passing score on the Microsoft Word Skill Check Test AND College Reading and Writing Readiness

*Course fee*

*Typically offered spring only*

### **AOS 122 Business Mathematics (3-0) 3 Hours**

Students will solve math problems encountered in a business environment. Areas of study include a review of mathematical computations, algebra, percentages, discounts, markups/markdowns, simple and compound interest, loans, depreciation, inventory, and stocks and bonds. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

### **AOS 170 Computer Keyboarding I (1.5-1) 2 Hours**

Computer Keyboarding I meets the needs of individuals seeking basic keyboarding skills on computers and provides the initial instruction leading to an employable skill level. By learning to use proper "touch" keystroking techniques, students will master the alphabetic keyboard including numbers and symbols. Once the keyboard is learned, emphasis will be placed on building speed and accuracy. (1.2)

*Course fee*

### **AOS 171 Computer Keyboarding II (1.5-1) 2 Hours**

This course is designed to continue building speed and accuracy skills on the alphabetic keyboard using proper "touch" keyboarding techniques. Proper formatting of basic business documents used in today's office will be introduced. (1.2)

*Prerequisite:* AOS 170, or Corequisite AOS 170, or permission of instructor

*Course fee*

### **AOS 172 Business English (3-0) 3 Hours**

This course is designed to teach the application of standard rules of business English necessary to ensure accuracy in written communications in the business office. This course includes intensive coverage of correct business word usage, punctuation, grammar, and sentence structure. (1.2)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Typically offered fall and spring only*

### **AOS 175 Keyboarding Speed and Accuracy Building (1.5-1) 2 Hours**

This course is for students with intermediate skill levels who wish to improve their speed and accuracy on the computer. (1.2)

*Course fee*

### **AOS 178 Intermediate Keyboarding (2-2) 3 Hours**

Intermediate Keyboarding focuses on increasing speed/accuracy on timings and increasing the production rate of office documents. Students will learn formatting of business correspondence. A knowledge of word processing software is required. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND AOS 171 or AOS 175 or permission of instructor

*Course fee*

### **AOS 214 Administrative Office Procedures (3-0) 3 Hours**

This course will prepare students for the role of the professional office manager in today's global job market. Topics to be covered include defining the administrative office manager, understanding basic forms of organizations, developing problem-solving skills, recruiting and orienting a culturally diverse workforce, and analyzing office jobs, salaries, benefits, and workplace issues. Also covered will be resume writing, travel arrangements, planning meetings and conferences, and time and record management. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Typically offered fall and spring only*

**AOS 215 Presentation Software (3-0) 3 Hours**

In this course students will learn to design, create, and present dynamic presentations using Microsoft's PowerPoint software. Topics include adding media, custom animation, and web posting. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

*Typically offered fall and summer only*

**AOS 216 Integrated Office Projects (3-0) 3 Hours**

Students will complete integrated projects required in a business environment. Students will use the components of Microsoft Office (Word, Excel, PowerPoint, Access, Outlook) and the Internet. This is a capstone course that requires the integration of previously learned skills. (1.2)

*Prerequisites:* (AOS 112 and AOS 113) or CIT 119

*Course fee*

*Typically offered fall and spring only*

**AOS 233 Management Skills (3-0) 3 Hours**

This course focuses on the actions of managers as they perform their planning/leading/organizing/controlling responsibilities. Students in this course will both study and practice critical management competencies. These competencies include problem-solving, relationship building, motivating, leading teams, performance management, conflict resolution, delegating, and change management.

AOS 233 and BUS 233 are cross-listed. (1.2)

*Prerequisite:* BUS 121 or AOS 214 or Department Consent.

*Typically offered spring only*

**AOS 237 Managerial Communication (3-0) 3 Hours**

This course will guide students in developing the communication skills needed to be successful as a manager. The course is organized in a workshop format, in which students develop, refine, and practice communication skills used by successful managers. The course includes a focus on both oral and written skills used in business at a management level. The content of the course will also include a focus on organization, non-verbal (both delivery and listening) and presentation skills. At the conclusion of the course, students will be able to prepare written business documents such as proposals, memos, and emails; organize and conduct meetings and write meeting minutes; and make formal and informal business presentations. Students will have developed communication skills that effectively inform and persuade their audience in addition to enhancing their credibility as managers. AOS 237 and BUS 237 are cross-listed. (1.2)

*Prerequisite:* AOS 111 or ENG 121

*Typically offered fall and spring only*

**AOS 239 Social Media/Social Networking in Business (3-0) 3 Hours**

This course provides an introduction to the use of social media and social networking within a business context. The course provides an overview of the role of social media and networking in building and managing customer relationships as a component of the marketing program. Students will develop the tools to communicate with customers using the major social network platforms such as Facebook, LinkedIn, Twitter and blogs. AOS 239 and BUS 239 are cross-listed. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

*Typically offered spring only*

**AOS 253 Leadership (3-0) 3 Hours**

This course will focus on the elements and concepts related to leadership. Various levels of leadership concepts will be examined including self-leadership, entrepreneurial leadership, team leadership, strategic leadership, and organizational leadership. Topics include leadership vision, culture and values, and strategy development and execution. Personal leadership competencies such as emotional intelligence, cross-cultural competencies, and leveraging via delegation and talent development will also be covered. AOS 253 and BUS 253 are cross-listed. (1.2)

*Prerequisite:* BUS 121 or Department Consent.

*Recommended:* BUS 223 or BUS 233 or AOS 233

*Typically offered fall only*

**AOS 299 Selected Topics in Office Automation (Variable) 1-3 Hours**

A course designed to meet the needs of students for specialized instruction in current office automation topics. Topics will be identified for each section of the course. (1.2)

*Course fee*

*May be taken four times, but any topic only once*

## Adult Basic Education (ABE)

### Adult Basic Education, GED® and ESL Division Building 4, (847) 543-2021

Adult Education classes are intended for people who live in Lake County. They are not appropriate for students with B1, B2, F1, F2, J1 or J2 visas, nor are they appropriate for short-term visitors to the U.S.

In general, students must be at least 18 years old in order to enroll in adult education classes. However, 16-year-olds and 17-year-olds may register with an official Secondary School Reference Form signed by their local High School authorized representative. U.S. High School graduates and 16-year-olds must meet additional eligibility requirements. New students must attend an orientation session before attending classes.

The Adult Basic Education, GED and ESL Division provides several specific types of educational opportunities and is funded in part by grants from the federal government.

**ABE 10 Literacy I (Variable) 3-6 Hours**

This course is an individualized program of instruction focusing on developing literacy skills in reading, writing and arithmetic. The course is designed to meet each student's personal goals. (1.7)

*Course fee*

*May be taken four times for credit*

## Course Information and Descriptions

### **ABE 11 Literacy 2 (Variable) 0.5-6 Hours**

This course is designed to raise students' basic literacy skills in reading, writing and arithmetic by using a variety of learning strategies to engage students in learning tasks and problem solving. Students will develop a personal word bank with everyday survival words, personal life/work words and the first 100 words on the Fry list of instant vocabulary.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 0.0–1.9) OR consent of Instructor or department chair. (1.7)

*Course fee*

### **ABE 13 Beginning Mathematics 1 (Variable) 0.5-6 Hours**

This course introduces students to whole numbers 0-100. Students will develop and apply number sense to read, write, compare and order whole numbers 0-100.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 0–1.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 15 Beginning Mathematics 2 (Variable) 0.5-6 Hours**

This course introduces students to addition and subtraction of whole numbers and introductory concepts of measurements. Students will solve word problem involving addition and subtraction. Students will read, record and use measurements.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 0–1.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 17 Beginning Mathematics 3 (Variable) 0.5-6 Hours**

This course introduces students to geometric properties. Students will specify locations and describe spatial relationships.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 0–1.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 19 Beginning Mathematics 4 (Variable) 0.5-6 Hours**

This course introduces students to surveys and graphs. Students will collect, organize, and record data.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 0–1.9) or consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 20 Beginning ABE 1 (Variable) 0.5-6 Hours**

This course is an individualized program of instruction for students with emerging reading, writing, language, arithmetic and life skills development. Students will progress and master the basic skills at their own rate. Students' needs determine level and kinds of materials used.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 2.0 - 3.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 21 Beginning ABE 2 (Variable) 0.5-6 Hours**

This course will review, teach and maintain basic skills in reading, writing, math and life skills. Students will progress at their own rate. Students' needs determine level and kinds of materials.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 2.0 - 3.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 22 Basic Reading 1 (Variable) 0.5-6 Hours**

This reading class teaches syllable patterns, phonemes, vocabulary and reading comprehension strategies.

*Prerequisite(s):* Must be placed into class using a mandatory assessment (e.g. TABE 0.0–1.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 23 Basic Mathematics 1 (Variable) 0.5-6 Hours**

This mathematics course introduces students to basic number concepts, mathematical language, and whole number topics (0-100,000). Students will develop and apply number sense to read, write, compare and order whole numbers 0-100,000.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 2.0 - 3.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 24 Basic Reading 2 (Variable) 0.5-6 Hours**

This course is a reading class that includes development of basic decoding skills, vocabulary, fluency and comprehension.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 2.0 - 3.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 25 Basic Mathematics 2 (Variable) 0.5-6 Hours**

This mathematics course introduces students to fractions and pictorial representation. Students will demonstrate an understanding of fractions as part of a whole to match fractions to a pictorial representation.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 2.0 - 3.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 26 Basic Reading 3 (Variable) 0.5-6 Hours**

This basic reading class teaches syllable patterns, phonemes, vocabulary and reading comprehension strategies.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 2.0 - 3.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

**ABE 27 Basic Mathematics 3 (Variable) 0.5-6 Hours**

This mathematics course introduces geometry and rounding of whole numbers. Students will demonstrate an understanding of the concepts of area and relate area to multiplication and to addition.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 2.0 - 3.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

**ABE 28 Basic Reading 4 (Variable) 0.5-6 Hours**

This basic reading class teaches syllable patterns, phonemes, vocabulary and reading comprehension strategies.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 2.0 - 3.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

**ABE 29 Basic Mathematics 4 (Variable) 0.5-6 Hours**

This mathematics course introduces multiplication and division facts (0-12) and simple probability. Students will calculate products and quotients of whole numbers.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 2.0 - 3.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

**ABE 30 Intermediate ABE 1 (Variable) 0.5-6 Hours**

This course is for students who want to progress and master the basic skills in a group learning situation. Course instruction will include reading, language development, writing and mathematics. Students may progress at their own rate.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 4.0 - 5.9) or consent of instructor and/or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

**ABE 31 Intermediate ABE 2 (Variable) 0.5-6 Hours**

This course will include intermediate reading, language development, writing and mathematics skills.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 4.0 - 5.9) or consent of instructor and/or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

**ABE 32 Intermediate Reading 1 (Variable) 0.5-6 Hours**

This course covers intermediate basic reading comprehension strategies, vocabulary, fluency and decoding skills.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 4.0 - 5.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

**ABE 33 Intermediate Mathematics 1 (Variable) 0.5-6 Hours**

This mathematics course introduces students to basic numeracy concepts of decimals and conversions of fractions, decimals and percents. Students will represent, order and compare decimals, fractions, and mixed numbers from the thousandth place to millions place.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 4.0 - 5.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

**ABE 34 Intermediate Reading 2 (Variable) 0.5-6 Hours**

This course covers intermediate basic reading comprehension strategies, vocabulary, fluency and decoding skills.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 3.0 - 5.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

**ABE 35 Intermediate Mathematics 2 (Variable) 0.5-6 Hours**

This mathematics course will introduce students to multiplication and division of multi-digit numbers and order of operations. Students will identify, understand and use math operation symbols and their order of operation.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 4.0 - 5.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

**ABE 36 Intermediate Reading 3 (Variable) 0.5-6 Hours**

This course is an intermediate basic reading class that develops decoding skills, vocabulary, fluency and comprehension.

*Prerequisite:* Students will be tested with a standardized assessment (e.g. TABE 4.0-5.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

**ABE 37 Intermediate Mathematics 3 (Variable) 0.5-6 Hours**

This mathematics course will introduce students to the four basic math operations with decimals, and coordinate graphing of points. Students will perform the four basic math operations with decimals and use two dimensional coordinate grids to represent points.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 4.0 - 5.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

**ABE 38 Intermediate Reading 4 (Variable) 0.5-6 Hours**

This course is an intermediate basic reading class that develops decoding skills, vocabulary, fluency and comprehension. (1.7)

*Course fee*

*May be taken four times for credit*

## Course Information and Descriptions

### **ABE 39 Intermediate Mathematics 4 (Variable) 0.5-6 Hours**

This mathematics course will introduce students to measurements, angles, interpretation of complex graphs and charts and the four basic math operations with fractions. Students will solve problems involving measurement, analyze data from complex graphs and charts and demonstrate strategies for adding, subtracting, multiplying and dividing fractions.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 4.0 - 5.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 40 High Intermediate ABE 1 (Variable) 0.5-6 Hours**

This course focuses on instruction in reading, language development mathematics, as well as problem-solving skills. Real-life applications including work-related skills will be covered.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 6.0 - 8.9) or consent of instructor and/or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 41 High Intermediate ABE 2 (Variable) 0.5-6 Hours**

This course is designed to teach and review advanced basic reading, writing, mathematics, and problem-solving skills. Real-life applications including work-related skills will be covered.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 6.0 - 8.9) or consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 42 High Intermediate Reading 1 (Variable) 0.5-6 Hours**

This course teaches advanced basic reading comprehension strategies, vocabulary, fluency and decoding skills.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 6.0 - 8.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 43 High Intermediate Mathematics 1 (Variable) 0.5-6 Hours**

This mathematics course will introduce students to positive and negative integers, application of number properties and a continuation of graphic representation. Students will apply number properties, compute with positive and negative integers and analyze visual data.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 6.0 - 8.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 44 High Intermediate Reading 2 (Variable) 0.5-6 Hours**

This course teaches advanced basic reading comprehension strategies, vocabulary, fluency and decoding skills.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 6.0-8.9) OR consent of Instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 45 High Intermediate Mathematics 2 (Variable) 0.5-6 Hours**

This mathematics course will introduce students to exponents, radicals, functions and 3-dimensional geometric figures. Students will evaluate exponents, square roots and absolute value of whole numbers.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 6.0 - 8.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 46 High Intermediate Reading 3 (Variable) 0.5-6 Hours**

This course teaches advanced basic reading comprehension strategies, vocabulary, fluency and decoding skills.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 6.0-8.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 47 High Intermediate Mathematics 3 (Variable) 0.5-6 Hours**

This mathematics course will introduce students to problems involving ratio, proportion and percentages. Students will solve problems involving ratio, proportion and percentages.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 6.0 - 8.9) OR consent of instructor or department chair. (1.7)

*Course fee*

*May be taken four times for credit*

### **ABE 48 High Intermediate Reading 4 (Variable) 0.5-6 Hours**

This course teaches advanced basic reading comprehension strategies, vocabulary, fluency and decoding skills.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 6.0-8.9) OR consent of instructor or department chair. (1.7)

*Course fee*

### **ABE 49 High Intermediate Mathematics 4 (Variable) 0.5-6 Hours**

This mathematics course will introduce students to algebraic expressions, equations, statistics and probabilities. Students will solve real-life and mathematical problems using numerical and algebraic expressions.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 6.0 - 8.9) OR consent of instructor or department chair. (1.7)

*Course fee*



## Course Information and Descriptions

### **ASE 12 Pre-ASE Reading 1 (Variable) 0.5-6 Hours**

(Formerly GED 12) This course focuses on critical reading techniques. It provides information-processing skills that will be useful in ASE preparation and in an academic or workplace environment.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 9.0-10.9) OR consent of instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **ASE 13 Pre-ASE Mathematics 1 (Variable) 0.5-6 Hours**

(Formerly GED 13) This mathematics course will cover the real number system and charts and graphs with more than one variable.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 9.0–10.9) OR consent of instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **ASE 14 Pre-ASE Reading 2 (Variable) 0.5-6 Hours**

(Formerly GED 14) This course incorporates reading and analysis of informational selections to develop critical reading skills necessary for success on the ASE exam.

*Prerequisite:* Students will be tested with a standardized assessment (e.g. TABE 9.0-10.9). (1.8)

*Course fee*

*May be taken four times for credit*

### **ASE 15 Pre-ASE Mathematics 2 (Variable) 0.5-6 Hours**

(Formerly GED 15) This mathematics course will cover dependent probability, functions and graphs of linear equations.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 9.0–10.9) OR consent of instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **ASE 16 Pre-ASE Reading 3 (Variable) 0.5-6 Hours**

(Formerly GED 16) This course introduces students to Social Studies texts, concepts and skills in preparation for the ASE exam.

*Prerequisite:* Students will be pre-and post tested with a standardized assessment (e.g. TABE 9.0-10.9) OR consent of instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **ASE 17 Pre-ASE Mathematics 3 (Variable) 0.5-6 Hours**

(Formerly GED 17) This mathematics course will cover theorems of geometric figures and coordinate geometry.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 9.0–10.9) OR consent of instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **ASE 18 Pre-ASE Reading 4 (Variable) 0.5-6 Hours**

(Formerly GED 18) This course will emphasize the development of basic scientific skills. In addition, scientific vocabulary and reading comprehension will be addressed to assist students in preparing for the ASE Science exam.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 9.0-10.9) OR consent of instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **ASE 19 Pre-ASE Mathematics 4 (Variable) 0.5-6 Hours**

(Formerly GED 19) This mathematics course will cover mathematical symbols, their limitations, and measurement.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 9.0–10.9) OR consent of Instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **ASE 20 ASE Preparation 1 (Variable) 0.5-6 Hours**

(Formerly GED 20) This course is a preparation for those who want to take the ASE exam to earn their high school equivalency certificate. It is for adults who have not completed high school.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 11.0-12.9) or consent of instructor and/or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **ASE 21 ASE Preparation 2 (Variable) 0.5-6 Hours**

(Formerly GED 21) This course is for those who need further instruction before attempting the ASE exam to earn their high school equivalency certificate.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 11.0-12.9) or consent of instructor and/or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **ASE 22 ASE Reading 1 (Variable) 0.5-6 Hours**

(Formerly GED 22) This course broadens reading comprehension skills and builds vocabulary skills. It provides information-processing skills that are necessary in ASE preparation and in an academic or workplace environment appropriate to the course level.

*Prerequisite:* Mandatory placement with a standardized assessment (e.g. TABE 11.0-12.9) (1.8)

*Course fee*

*May be taken four times for credit*

### **ASE 23 ASE Algebra 1 (Variable) 0.5-6 Hours**

(Formerly GED 23) This mathematics course will cover the real number system, quantities, and structure in expressions.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 9.0-10.9) OR consent of instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **ASE 24 ASE Reading 2 (Variable) 0.5-6 Hours**

(Formerly GED 24) This course broadens reading skills of complex informational texts. It provides information-processing skills that are necessary in ASE preparation and in an academic or workplace environment appropriate to the course level.

*Prerequisite:* Mandatory placement with a standardized assessment (e.g. TABE 11.0-12.9) OR consent of instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **ASE 25 ASE Algebra 2 (Variable) 0.5-6 Hours**

(Formerly GED 25) This mathematics course will cover creating equations, arithmetic with polynomials and rational expressions.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 9.0-10.9) OR consent of instructor or department chair. (1.8)

*Course fee*

**ASE 26 ASE Reading 3 (Variable) 0.5-6 Hours**  
(Formerly GED 26) This course broadens reading skills in History and Social Studies. It provides information-processing skills that are necessary in ASE preparation and in an academic or workplace environment appropriate to the course level.

*Prerequisite:* Mandatory placement with a standardized assessment (e.g. TABE 11.0-12.9) OR consent of instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

**ASE 27 ASE Algebra 3 (Variable) 0.5-6 Hours**  
(Formerly GED 27) This mathematics course will cover reasoning with equations and inequalities.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 9.0-10.9) OR consent of instructor or department chair. (1.8)

*Course fee*

**ASE 28 ASE Reading 4 (Variable) 0.5-6 Hours**  
(Formerly GED 28) This course broadens reading skills in science and technical subjects. It provides information-processing skills that are necessary in ASE preparation and in an academic or workplace environment appropriate to the course level.

*Prerequisite:* Mandatory placement with a standardized assessment (e.g. TABE 11.0-12.9) OR consent of instructor or department chair. (1.8)

*Course fee*

**ASE 29 ASE Algebra 4 (Variable) 0.5-6 Hours**  
(Formerly GED 29) This mathematics course will cover interpreting and building functions, as well as linear, quadratic and exponential models.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 9.0-10.9) OR consent of instructor or department chair. (1.8)

*Course fee*

**ASE 33 ASE Geometry 1 (Variable) 0.5-6 Hours**  
(Formerly GED 33) This mathematics course will introduce students to transformations in the plane and congruence in terms of rigid motions. Students will experiment with transformations in the plane.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 9.0–10.9) or consent of instructor or department chair. (1.8)

*Course fee*

**ASE 35 ASE Geometry 2 (Variable) 0.5-6 Hours**  
(Formerly GED 35) This mathematics course will cover geometric theorems, geometric constructions and geometric properties with equations.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 9.0-10.9) OR consent of instructor or department chair. (1.8)

**ASE 37 ASE Geometry 3 (Variable) 0.5-6 Hours**  
(Formerly GED 37) This mathematics course will introduce students to similarity and right triangles. Students will prove theorems involving similarity.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE pretest levels from 9.0-10.9) OR consent of instructor or department chair. (1.8)

*Course fee*

**ASE 39 ASE Geometry 4 (Variable) 0.5-6 Hours**  
(Formerly GED 39) This mathematics course will cover circles, geometric measurement and dimensions.

*Recommended:* Must be placed into class using a mandatory assessment (e.g. TABE 9.0–10.9) or consent of instructor or department chair. (1.8)

*Course fee*

## Agriculture (AGR)

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

**AGR 111 Permaculture Production (1-2) 2 Hours**

This course introduces students to the production and management of perennial food and orchard crops. Crop production plans for multi-year phased growing operations are emphasized. Harvest, storage and shipping methods to maximize crops sales also are covered. Field practices are part of each class session. (1.2)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 AND a score of 34 or higher on the Math Placement Test or Basic Algebra Readiness

*Recommended:* Basic biology or ecology coursework

*Course fee*

**AGR 112 Season Extension Methods (1-2) 2 Hours**

This course introduces students to season extension growing methods such as floating row covers, cold frames and high tunnels. Changeover of cool -warm season crops to allow for year-round growing and control of harvest timing are covered. (1.2)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 AND a score of 34 or higher on the Math Placement Test or Basic Algebra Readiness

*Course fee*

**AGR 114 Annual Fruit and Vegetable Production (1-2) 2 Hours**

This course introduces students to the planning, planting, production and harvesting of annual food crops. Intercropping, vertical growing, successional planting and other harvest maximization techniques are addressed. Sustainable practices for regional climate and soil conditions and organic growing methods are emphasized. Class includes hands-on growing activities. (1.2)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 AND a score of 34 or higher on the Math Placement Test or Basic Algebra Readiness

*Course fee*

**AGR 210 Agricultural Marketing (3-0) 3 Hours**

This course introduces students to various farm-to-market business approaches including community supported agriculture (CSA), farm-to-institution, farmer's markets and other direct market sales. Wholesale distribution and creation of value-added products also are covered. Students develop an agricultural business plan for class, and visit local farm businesses. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Recommended:* HRT 160, BUS 122, or BUS 121

## Course Information and Descriptions

### Anthropology (ANT)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

#### **ANT 121 Introduction to Anthropology (3-0) 3 Hours**

This course is an introduction to the nature of humans and their development and relationship to the physical, social, and cultural environments both past and present. This course surveys the major fields of anthropology: physical anthropology, ethnology, linguistics, and archaeology, with an emphasis on non-Western cultures and underrepresented groups. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Note:* For online sections, College Reading and Writing Readiness is required

*Fulfills the CLC I/M Education Requirement.*

**IAI: S1 900N**

#### **ANT 221 Cultural Anthropology (3-0) 3 Hours**

This course is a study of the nature and development of culture. The economic, political, religious and social organizations of selected human groups (with an emphasis on non-Western and underrepresented groups) are examined, compared and evaluated. It explores the cultural determinations of individual human behavior and means of adaptation. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Note:* For online sections, College Reading and Writing Readiness is required

*Fulfills the CLC I/M Education Requirement.*

**IAI: S1 901N**

#### **ANT 222 Introduction to Physical Anthropology (3-0) 3 Hours**

This course is an introductory survey of basic concepts, theories, and information addressing physical anthropology. Specifically, this course explores human origins, primate and human fossil records, population genetics, human adaptation and variation, and humankind's place in the world ecology. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: S1 902**

#### **ANT 224 Introduction to Archaeology (3-0) 3 Hours**

This course is a survey of the concepts and methods essential to the study of prehistoric cultures with emphasis on the prehistoric cultures of the Americans. Topics include site location, techniques of excavation, methods of dating artifacts and sites, analysis of artifacts, reconstruction of culture history and cultural resource management. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: S1 903**

#### **ANT 226 Field Methods (3-0) 3 Hours**

This course is an introduction to the techniques of field archaeology and includes instruction in excavation and recording, exploratory surveys and mapping, project planning, research design, laboratory analysis, and preparation of research reports. The class will be conducted at an approved archaeological site, such as the Mayflower Archaeological Preserve in Belize, Central America. The course will be comprised of actual field work, along with lectures and discussion. (1.1)

*Prerequisite:* College Reading and Writing Readiness

#### **ANT 228 Cross-Cultural Relationships (3-0) 3 Hours**

Combining the anthropological traditions of a strong cross-cultural approach, a focus on small-scale cultures, and an emphasis on traditionally underrepresented groups, this course offers a unique perspective on the analysis and understanding of the globalization process. Application of anthropological concepts, techniques, and information will be applied to understanding the global mix of cultures increasingly forged by economic development, with particular attention given to the relationships, obligations, and responsibilities of small and large-scale cultures. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: S1 904D**

#### **ANT 299 Special Topics in Anthropology (Variable) 1-3 Hours**

This course addresses the in-depth study of special topics in anthropology that do not have specific courses in the catalogue.

Course content will vary depending on the topic being studied and may include topics in Cultural Anthropology, Archaeology, Physical Anthropology, Applied Anthropology, and Linguistic Anthropology. This course may be taken four times for a maximum of 6 hours towards degree completion. (1.1)

*Prerequisite:* To be determined relative to topic

*May be taken four times, but any topic only once*

### Arabic (ARA)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

#### **ARA 121 Elementary Modern Standard Arabic I (4-0) 4 Hours**

An introduction to the phonology and writing systems of modern standard Arabic and its basic vocabulary and fundamental structures. This course offers combined training in listening, speaking, reading, and writing through dialogues, texts, and narratives with historical, literary, and religious content. (1.1)

#### **ARA 122 Elementary Modern Standard Arabic II (4-0) 4 Hours**

A continuation of the mastery of Arabic phonology, basic vocabulary, and fundamental syntax. This course puts emphasis on oral reading and writing practice based on selected texts from Islamic literature, including the Qur'an and Hadith. (1.1)

*Prerequisite:* ARA 121

#### **ARA 221 Intermediate Modern Standard Arabic I (4-0) 4 Hours**

Expansion of the student's understanding of the Arabic language with active vocabulary and structure and the development of reading and oral skills. Selected readings include texts and narratives from various genres of Arabic prose literature. (1.1)

*Prerequisite:* ARA 122

**ARA 222 Intermediate Modern Standard Arabic II (4-0) 4 Hours**

This course continues to expand the knowledge of Arabic grammar, with emphasis in verbal and written communication. Films, readings and materials from newspapers, magazines, and media are utilized so students explore the Arabic-speaking world and cultures based on authentic materials. (1.1)

*Prerequisite:* ARA 221

*Fulfills the CLC I/M Education Requirement.*

**IAI: H1 900**

## Architectural Technology (ARC)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

**ARC 121 Architectural Graphics (2-3) 3 Hours**

A course which presents the fundamental principles of graphical communication for the Architectural student in architectural terms. Students will learn to understand the built environment through drawing. Students will learn to communicate concepts verbally and graphically through both hand and computer drawing. (1.2)

*Course fee*

**ARC 151 Advanced Concepts of Project/AutoCAD Management (2-2) 3 Hours**

Course is designed to teach an understanding of the concepts of sharing data through xref management as it relates to the division of AutoCAD files regarding the use of xref base drawing, model space drawing and paper space drawing. Establishing files that relate to the indexing of Construction Drawings will also be addressed. (1.2)

*Prerequisite:* ARC 121 and CAD 117

**ARC 170 Architectural Design (2-3) 3 Hours**

This course enables the student to become familiar with the basic principles and considerations involved in the functional aesthetic aspects of architectural design. The course further provides the student with practical “hands on” experience in solving architectural design problems.

*Note:* Completion of Architectural Graphics (ARC 121) or an equivalent drawing course is recommended. Some knowledge of architectural materials and construction techniques will be helpful. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

**ARC 171 Architectural Working Drawings (2-2) 3 Hours**

This course provides the student with the knowledge and skills necessary to draw detailed building construction documents. Students draw site plans, foundation plans, floor plans, elevations and sections. (1.2)

*Prerequisite:* ARC 121, CAD 117, and CAD 178 (previously CAD 214) (all C or better)

*Course fee*

*Typically offered fall only*

**ARC 211 Structural Steel Design (2-3) 3 Hours**

Relating of structural steel components to a total structural system.

*Note:* Student must furnish basic required equipment. (1.2)

*Prerequisite:* EGR 216

**ARC 214 Reinforced Concrete and Timber Design (2-3) 3 Hours**

Relating concrete and timber structure components to total structural system.

*Note:* Student must furnish basic required equipment. (1.2)

*Prerequisite:* EGR 216

**ARC 215 Architectural Project Planning (2-4) 4 Hours**

This course provides the student with a practical problem-solving situation under job-like conditions. The student will synthesize all information previously learned to complete a building design project. This practical project will take the entire semester to complete and will incorporate information from all previous course work in the Architecture Program.

*Note:* Fourth semester standing in the Architectural Program and departmental advisement are recommended. (1.2)

*Prerequisite:* ARC 171 (C or better)

*Course fee*

**ARC 216 Architectural Illustration (2-2) 3 Hours**

This course is designed for students who are interested in using Autodesk 3ds Max Design software to enhance their 3D designs. Students will use the software to create 3D illustrations and rendering of products, interiors/exterior of buildings to produce professional presentation quality drawings. The topics include advanced modeling and modifiers, advanced materials, animation, and the use of mental ray rendering software.

*Note:* Completion of CAD179, or familiarity with Autodesk 3ds Max Design, is recommended prior to taking this course.

*Note:* This course is cross listed with CAD 279. (1.2)

*Course fee*

*Typically offered spring only*

**ARC 219 Introduction to Environmental Design (3-0) 3 Hours**

Sustainable design is demanded in the marketplace and is necessary for projects that attempt to get toward a 0 carbon footprint. Students will analyze case studies of existing sustainable designs. Students will be able to explain the development of sustainable design. Students will develop an understanding of sustainable design and will be able to determine ways of providing a sustainable design as the solution to a design problem. (1.2)

*Prerequisite:* College Reading and Writing Readiness

**ARC 228 History of Architecture (3-0) 3 Hours**

Students will develop an understanding of building typologies and the background of notable architecture. Emphasis will be on the survey of styles of architecture from classical to modern architecture. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**ARC 251 Architectural Analysis (2-2) 3 Hours**

This course will advance the student’s ability to perform analysis of the form and space of the built environment beginning with experiential and empirical inquiry and expanding to formal, visual, compositional, and perceptual techniques. (1.2)

*Prerequisite:* ARC 121, ARC 171 and CAD 117 (all C or better)

## Course Information and Descriptions

### **ARC 252 Beginnings of Modern Architectural Theory (3-0) 3 Hours**

This course is an introduction to the concept of architectural theory as an integral part of making, understanding, and interpreting works of architecture. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **ARC 271 Commercial Working Drawings (2-2) 3 Hours**

Course designed to prepare students to complete plans and details of construction drawings of commercial buildings including; site plans, foundation, floor, wall, and roofing systems. (1.2)

*Prerequisite:* ARC 121

*Course fee*

*Typically offered spring only*

### **ARC 275 Portfolio and Professional Development (0-2) 1 Hour**

This course will assist in preparing students for architectural career positions and develop skills that will increase their success in the market place. Presentation of design projects and professional development activities to enhance the student's portfolio will be included.

*Note:* Instructor consent required. This course must be taken in the last semester before graduation and after the completion of 2 credit hours of Cooperative Work Experience. In addition, participation in an agreed upon professional group is required. (Fee will apply) (1.2)

### **ARC 299 Special Topics: Architecture Technology (Variable) 1-4 Hours**

This course is designed to respond to the rapidly developing pace of advancement in technology. Specialized topics will include the areas of design and construction.

*Note:* Topics will be identified for each section of the course. (1.2)

*Prerequisite:* To be determined relative to topic

*May be taken four times, but any topic only once*

## Art (ART)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

### **ART 111 Printing Production (3-0) 3 Hours**

This course is a survey of the graphic arts process from the written copy to the finished piece, using technical aspects of digital print production. An overview of Electronic Print Technology will be explored. Students will learn terminology to communicate with others in the field. Specific units will draw on current industry software (object-oriented graphics) and paint software (bitmapped images), graphic design, typography, and color. The first half of course covers computer prepress including all software needed for art preparation. The second half of this course covers contemporary and historic printing methods.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.2)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Course fee*

### **ART 121 Introduction to Art (3-0) 3 Hours**

This course will introduce students to an appreciation of the visual arts through an intercultural, social/historical approach. The course will also emphasize the nature of the creative process, integrating a study of the conceptual principles, with methods and materials which influence artistic critical thinking, problem solving, exploration, and discovery.

*Note:* A museum visit will be required during the semester at student expense. See course syllabus for approximate cost. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: F2 900**

### **ART 122 Two Dimensional Design (0-6) 3 Hours**

This course is a basic studio experience for those interested in fine arts, commercial arts or art education. Students will carry out a series of problems relating to the elements and principles of two-dimensional design. The course will develop the students' organizational abilities and technical skills, with the focus on verbal, written and visual definitions of terms and concepts of two-dimensional design used by artists and designers.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

### **ART 123 Color and Design Techniques (0-6) 3 Hours**

This studio course is a continuation of ART 122 that focuses on two dimensional design concepts, principles, and techniques. Use of color techniques and development will be focused on through a variety of mediums.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 122 (C or better)

### **ART 124 Drawing I (0-6) 3 Hours**

This course provides students with an introduction to drawing concepts and processes through freehand application. Throughout the course, in-class and out-of-class assignments will stress linear and tonal approaches to describe objects drawn from direct observation. The outline of class work is progressive and includes contour line drawing assignments, visual measuring and sighting, shape quality, composition, linear perspective, value drawing, master studies, and self-portraiture. Mediums employed will be graphite pencil, charcoal, and conte crayon.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

**ART 125 Art for Elementary Teachers I (0-4) 2 Hours**

A basic studio experience open to all students but designed for those majoring in general elementary education and those who are already teaching or working in some capacity with children at the elementary level. The student will be given practical experience in carrying out a series of techniques, teaching methods, and projects relating to the elements and principles of teaching art. (This course is primarily designed as a methods course for those people who would wish to add art to the elementary curriculum.)

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Course fee*

**ART 126 Art for Elementary Teachers II (0-4) 2 Hours**

Designed as a continuation of ART 125 to provide additional studio experiences in greater depth for students who want additional experience in the methods and techniques of art and teaching art to children.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 125

*Course fee*

**ART 127 Drawing II (0-6) 3 Hours**

This is a second level drawing course in which freehand linear, tonal, and color approaches will be used to describe the relationships of objects and spaces drawn from direct observation. All work will build off of basic drawing principles. Composition, application of media, concept development, and finished quality of each work will be stressed. Mediums employed will be graphite pencil, charcoal, conte crayon, and chalk pastel.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 124

**ART 128 Watercolor I (0-4) 2 Hours**

This course explores the methods and techniques of water-soluble painting media with an emphasis on developing knowledge of compositional elements in watercolor.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

**ART 129 Photography I (2-2) 3 Hours**

This course introduces students to the principles of the photographic process from picture taking to printing. Emphasis is placed on historical photographs to illustrate these principles. The course includes the use of cameras, darkroom equipment, film processing, printing, and elements of photographic composition. It is designed for students with little or no background in photography.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Course fee*

**ART 149 Digital Photography I (2-2) 3 Hours**

This course covers the capture, processing, and output of digital images. Digital camera and scanner input technology, as well as inkjet and electronic media output are explored. Technical instruction in Adobe Photoshop image processing software will also be covered.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Course fee*

**ART 220 Watercolor II (0-4) 2 Hours**

This course is a continuation of Watercolor I with emphasis on advanced investigation of aesthetic concerns of water-based media. The course covers development of sophisticated ideas and techniques through directed experimentation. Various aqueous media will be explored through lecture, demonstrations and projects. Illustrated lectures examining the history of watercolor as a viable expression in the visual arts will be included.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART128

**ART 221 Three Dimensional Design (0-6) 3 Hours**

This course is a studio experience intended to introduce students to three-dimensional design through the use of a variety of materials, processes and concepts. The course stresses the technical aspects of design, construction, problem solving, and presentation, as well as concept development.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

**ART 222 Computer Art I (0-6) 3 Hours**

This course presents a computer software-based approach to produce art. Visual image manipulation and generation will be stressed, including the integration of computer hardware, software, and peripheral devices as tools to manufacture, capture, and combine traditional and contemporary visual ideas as applied to art and design.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Course fee*

**ART 223 Sculpture I (0-6) 3 Hours**

This course is an introduction to the processes of creating three-dimensional sculptural art forms. Students will be exposed to a variety of techniques, materials, and equipment used by artists to create sculpture.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Course fee*

## Course Information and Descriptions

### **ART 224 Painting I (0-6) 3 Hours**

This course will expose students to the methods and techniques of various painting media to develop knowledge of composition. The course will concentrate on the basic techniques of the direct and indirect methods of oil painting.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

### **ART 225 Figure Drawing (0-6) 3 Hours**

Continuation of basic drawing with the application of drawing techniques and concepts as related to the figure.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 124

*Course fee*

*Typically offered fall only*

### **ART 226 Ceramics I (0-6) 3 Hours**

This beginning ceramics course covers basic handbuilding (pinching, coiling, and slab building), wheel throwing (basic cylinder and bowl forms), and glaze techniques. Emphasis is placed on the understanding of the ceramic process and ceramics as a fine art medium.

*Note:* Students are required to provide their own clay tools, which are available in the bookstore. Clay and glazes will be supplied. Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Course fee*

### **ART 227 Painting II (0-6) 3 Hours**

This course is an advanced study of the methods and techniques of the various painting media, as well as problems of composition. Emphasis is on the development of ideas, content and technique.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 224

### **ART 228 Sculpture II (0-6) 3 Hours**

This is an advanced course designed to help students understand the development of materials and processes necessary to transform ideas and concepts into three dimensional forms. Technical information in materials and processes of forming, attaching, and manipulating materials, as well as welding, casting, and carving will be included.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Course fee*

### **ART 229 Photography II (2-2) 3 Hours**

This course provides an advanced technical and artistic approach to photography which includes camera use, darkroom techniques, and references to the history of photography. Students will develop skills through the development of a portfolio.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 129

*Course fee*

*Typically offered spring only*

### **ART 240 History of Art I (3-0) 3 Hours**

A survey of the history of the civilizations of the prehistoric era and the ancient world before 1400 by examination of specific works of art and architecture including artifacts and monuments from Mesopotamia, Egypt, Greece, Rome, India, Japan, Africa, Amerindian/Mesoamerica, Early Christian/Byzantine, the Middle Ages, and the Middle East.

*Note:* A museum visit will be required during the semester at student expense. See course syllabus for approximate cost. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: F2 901**

### **ART 241 History of Art II (3-0) 3 Hours**

This course is a survey of the history of the civilizations, countries, and culture areas from the dawn of the Renaissance tradition in Italy through the present day in Western Europe, Asia, India, Africa, Amerindian/Mesoamerica and the Middle East by means of exposure to specific works of art and architecture.

*Note:* A museum visit will be required during the semester at student expense. See course syllabus for approximate cost. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

*Typically offered spring only*

**IAI: F2 902**

### **ART 244 Color Photography (2-2) 3 Hours**

This color photography course covers color theory, color darkroom procedures, color filtration, and the historical and technical developments of color photography. Students must provide a camera and color darkroom materials for use in completing course assignments.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 129

*Course fee*

### **ART 245 Jewelry I (0-6) 3 Hours**

This is a beginning course in the design and fabrication of small three dimensional objects. Emphasis is placed on gaining an understanding of the aesthetic concerns of small scale metal work and the skills and techniques of producing jewelry as art. Students will design and learn processes, while developing sensitivity to techniques and ideas, and producing works that stress craftsmanship. This course is fundamentally an extension of Sculpture and Design in the third dimension in a utilitarian form: the balance between aesthetics and technique.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate cost. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Course fee*

**ART 246 Ceramics II (0-6) 3 Hours**

This course is a continuation of Ceramics I with further exploration of wheel throwing, handbuilding, glaze techniques, and kiln firing. Students will learn how to throw plates, fit lids, pull handles, and create spouts. Students will also learn the ceramic process by participating in clay mixing, glaze mixing, kiln loading, and kiln firing. Functional form and how it relates to sculpture will also be explored.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 226 (C or better)

*Course fee*

**ART 247 Ceramics III (0-6) 3 Hours**

This third ceramics course is a continuation of Ceramics II. Students will continue to develop their personal artistic direction with more independence, while being introduced to other forming and firing methods on a rotating basis. Students will continue to learn the ceramic process by participating in clay mixing, glaze mixing, and kiln loading. They will further their understanding of firing by participating in kiln firings.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 246 (C or better)

*Course fee*

**ART 248 Individual Art Projects (0-6) 3 Hours**

This course is designed to provide opportunities for students to pursue interests in specific areas of art with instructor supervision in such cases where the student has already completed the course offerings in that area.

*Note:* Must have successfully completed all possible courses in a discipline, e.g., Painting, Sculpture, Design, Drawing, Photography, Computer Art, or Art History. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR Instructor Consent. Must have successfully completed all possible courses in a discipline, e.g., painting, sculpture, design, drawing, Photography, Computer Art, or Art History.

*Course fee*

*May be taken four times for credit toward degree*

**ART 249 Digital Photography II (2-2) 3 Hours**

Digital Photography II is a continuation of Digital Photography I and expands upon the skills and techniques learned in the beginning course. Course work includes instruction in color management, raster image processor (RIP) output routines, hybrid digital and traditional processes, multi-channel imaging, and other advanced techniques. Adobe's Photoshop image processing software comprises the bulk of the course work. This course is for students with moderate to advanced experience in digital photography.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 149

*Course fee*

**ART 260 History of Photography (3-0) 3 Hours**

This course traces the historical development of photography as an art form from 1839 to the present. Discussions will begin with the pre-history of the camera obscura through the discoveries of the inventors of photography as an art form. Discussions will include critical analysis of types of photographs and aesthetic movements in photography. Multicultural/intercultural aspects, as well as contributions of women to the photographic arts, will be discussed.

Contributions of photography to the other arts also will be included.

*Note:* A museum visit will be required during the semester at student expense. See course syllabus for approximate cost. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: F2 904**

**ART 261 Non-Western Art History (3-0) 3 Hours**

This course introduces non-Western cultural perspectives. Emphasis will be placed on, but not limited to, African, Latin American, Middle Eastern, Indian, Asian, and Oceanic art forms throughout history. Students should be able to demonstrate an historical understanding of art as a product reflective of non-Western social and cultural development. This course will discuss the art with an emphasis on the perspectives of third world countries and underrepresented and minority groups. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: F2 903N**

**ART 262 Commercial Photography (2-2) 3 Hours**

This is a course designed to instruct the photography student in specialized techniques used in the creation of saleable photographs, and use of photographic equipment for revealing the form and demonstration of products. Students will also learn techniques of documentary and journalistic photography. Students will explore the use of photographic lighting as a creative tool for product enhancement. Students will explore use of tungsten light and electronic flash in a studio setting.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 129

**ART 263 2D Computer Animation (0-6) 3 Hours**

This is a hands-on intermediate level course in the creation and development of 2D animations. Through various assigned projects the student will be exposed to the history of animation, theory, image manipulation, drawing, video, audio and other various animation techniques. This intermediate level course will provide the student with knowledge of computer animation on a simple and complex level. The course will explore the incorporation of different mediums within computer animation, and the student will gain an understanding of professional technical skills within their lessons and independent projects.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 122 and ART 222

*Course fee*

**ART 264 3D Computer Animation (0-6) 3 Hours**

This is a hands-on intermediate level course in the creation and development of 3D animations. Through various assigned projects the student will be exposed to the history of animation, theory, image manipulation, lighting, wire frames, vector points, drawing, video, audio and other various animation techniques. This course will provide the student with the knowledge of computer animation on a simple and complex level. The course will explore the incorporation of different mediums within computer animation, and the student will gain an understanding of professional technical skills from their lessons and independent projects.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 263

*Course fee*

## Course Information and Descriptions

### **ART 267 Wood and Soda Fired Ceramics (0-6) 3 Hours**

This course will investigate the technical and aesthetic possibilities of firing with wood and soda. Students are introduced to and participate in the entire firing process including: the preparation of the kilns and ceramic pieces for firing, firing speed, atmospheric changes, introduction of ash or sodium, cooling processes, unloading of the kilns and clean up of the artwork. Assigned and self-directed projects will be made using a variety of hand building and wheel throwing techniques. Various clay bodies, slips and glazes will also be explored in order to achieve the most desirable results. (1.1)

*Prerequisite:* ART 246 (C or better)

*May be taken four times for credit toward degree*

### **ART 271 Introduction to Electronic Graphic Publishing (0-6) 3 Hours**

This is an introductory art course in the creation and development of computer graphic designed images. Through assignments and projects, the student will learn the history of graphic design, theory, image manipulation, logo creation, art, typography, and page layout. The student will also develop professional technical skills, as well as experience in their application. This course will provide the student with a foundation for future computer graphics courses.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Prerequisite:* ART 222

*Course fee*

### **ART 272 Introduction to Video Production (0-6) 3 Hours**

Students are introduced to the concepts and processes of visual storytelling with an emphasis on motion pictures. Students will learn file theory and techniques in all phases of production, which will give them a foundation for future production classes. Narrative skills will be strengthened through using still photography for storyboards, computers and video equipment to produce various individual and group projects.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.2)

*Prerequisite:* ART 149 or ART 249

*Course fee*

### **ART 274 Video Production II (0-6) 3 Hours**

Video Production II is an intermediate level class that will take the basic skills from the Introduction to Video Production course and move the student into a more technological and advanced area of video production. This course will focus on the concepts and process of documentary production, with a strong emphasis on film style video production. Students will become introduced to digital video and non-linear editing. The exploration of documentary theory and script writing will be studied. Students will become exposed to a wide variety of foreign and domestic films to develop a critical eye for the production process, technique, and critiques.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.2)

*Prerequisite:* ART 272 and ART 280

*Course fee*

### **ART 275 Digital Illustration (0-6) 3 Hours**

This course will introduce students to illustration styles from diverse cultures and convey how these different artistic styles can be applied to a contemporary digital art medium. Critical examination of illustration artists and their artistic expressions will be taught, as will industry standard techniques and perspectives. Students will develop skills in two dimensional design, color, and strategic use of line weight, along with balance and positioning of graphic elements. (1.1)

*Prerequisite:* ART 222

### **ART 280 Audio Production (0-6) 3 Hours**

The Exploration of Audio Production is a unique application of field and studio production techniques, lecturing in sound theory, recording live audio, utilizing and learning how microphones are used for certain situations, operating studio and field mixers, learning the proper way to handle equipment and utilizing contemporary audio software. Altering sound waves, audio sync with video, and other various techniques will be explored. In addition to classroom lectures and lab assignments, students will be organized into production units. As skills are developed each production group will be responsible for producing studio and field audio recordings. The class projects will be brought back to the sound studio for critiquing purposes.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Course fee*

### **ART 299 Special Topics in Art (Variable) 1-3 Hours**

Special topics in the field of art, which are outside of the existing curriculum, will be developed. Courses will provide an opportunity for in-depth study of topics pertinent to both traditional and contemporary mediums and themes.

*Note:* Additional materials beyond those covered by course or lab fees will be required. See course syllabus for a list of materials and approximate costs. (1.1)

*Course fee*

*May be taken four times for credit toward degree*

## Asian/Asian American Studies (ASI)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

### **ASI 121 Introduction to Asian American Studies (3-0) 3 Hours**

This interdisciplinary course will introduce students to key ideas and issues in the study of Asian American histories, cultures, and racial formation including, but not limited to, matters of migration, social/cultural/legal citizenship, social movements, and cultural politics. Materials will include films, literature, historical and sociological texts, and media and popular culture texts and productions. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

## Automation, Robotics and Mechatronics (ARM)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

### New Courses

(Effective Spring 2018) See Addendum.

**ARM 222 Manufacturing Process Design 3 Hours**

**ARM 242 Reverse Engineering of Mechanical Systems 3 Hours**

**ARM 288 Process Control Technologies 3 Hours**

**ARM 111 Fundamentals of High Tech Manufacturing I (1-0) 1 Hour**

This course will cover Occupational Safety and Health Administration (OSHA) safety standards, industrial hazards, personal protective equipment, fire and emergency response, Lockout/Tagout (LOTO), and ergonomics. (1.2)

*Prerequisite:* ELI Accuplacer score of 221 or higher, APT score of 80 or higher, ELI 103 (C or better), ELI 104 (C or better), ELI 110 (C or better), or College Reading and Writing Readiness AND Basic Algebra Readiness.

**ARM 112 Fundamentals of High Tech Manufacturing II (1-0) 1 Hour**

This course will cover basic manufacturing and production, basic measurement devices, manufacturing efficiency techniques and industrial supply chain systems. (1.2)

*Corequisite:* ARM 111 (C or better) or consent of department

**ARM 113 Fundamentals of High Tech Manufacturing III (1-0) 1 Hour**

This course will cover simple machines, basic electrical and fluid power systems, basic troubleshooting and problem solving techniques, and basic preventive and total productive maintenance. (1.2)

*Corequisite:* ARM 112 (C or better) or consent of department

**ARM 114 Fundamentals of High Tech Manufacturing IV (1-0) 1 Hour**

This course will cover troubleshooting and problem solving techniques specific to quality control in manufacturing environments. (1.2)

*Corequisite:* ARM 113 (C or better) or consent of department

**ARM 116 Mechatronics Graphics I (.5-1) 1 Hour**

This course covers the role of technical drawings in industry, examples of different types of technical drawings, measurements using rulers, calipers and micrometers, and introduction to sketching techniques and to 3-view drawings. (1.2)

*Prerequisite:* ELI Accuplacer score of 221 or higher, APT score of 80 or higher, ELI 103 (C or better), ELI 104 (C or better), ELI 110 (C or better), or College Reading and Writing Readiness AND Basic Algebra Readiness.

*Course fee*

**ARM 117 Mechatronics Graphics II (.5-1) 1 Hour**

This course continues coverage of 3-view visualization and sketching techniques. It also covers introduction to special views, dimensioning techniques and drawing layout. (1.2)

*Corequisite:* ARM 116 (C or better) or consent of department

*Course fee*

**ARM 118 Mechatronics Graphics III (.5-1) 1 Hour**

This course will cover tolerancing, Computer Aided Design (CAD) terminology and basic object drawing, modification of existing CAD drawings and CAD dimensioning. (1.2)

*Corequisite:* ARM 117 (C or better) or consent of department

*Course fee*

**ARM 119 Mechatronics Graphics IV (.5-1) 1 Hour**

This course will cover drafting standards, basic electrical symbols and schematics, basic fluids symbols and schematics, technical documentation and the use of embedded Computer Aided Design (CAD) package objects to create schematic drawings. (1.2)

*Corequisite:* ARM 118 (C or better) or consent of department

*Course fee*

**ARM 131 Robot Design and Construction I (.5-1) 1 Hour**

This course will cover the history and development of robots, types of robots, robot components, and basic robot physics. The course will also touch on technical sketching as applied to robot design. (1.2)

*Prerequisite:* ELI Accuplacer score of 221 or higher, APT score of 80 or higher, ELI 103 (C or better), ELI 104 (C or better), ELI 110 (C or better), or College Reading and Writing Readiness AND Basic Algebra Readiness.

*Course fee*

**ARM 132 Robot Design and Construction II (.5-1) 1 Hour**

This course will cover spur, bevel and worm gears, gear trains, mobile chassis design, wheel configurations, DC and AC motors, servo and stepper motors, and power supplies as applied to mobile robots. (1.2)

*Corequisite:* ARM 131 (C or better) or consent of department

*Course fee*

**ARM 133 Robot Design and Construction III (.5-1) 1 Hour**

This course will cover microcontrollers, digital and analog signals, sensors, friction and bearings as applied to mobile robots along with the design and construction of robotic arms. (1.2)

*Corequisite:* ARM 132 (C or better) or consent of department

*Course fee*

**ARM 134 Robot Design and Construction IV (.5-1) 1 Hour**

This course will cover robot programming in "C" to include variables, basic programming structures, for and while loops, if-else statements. A final robot project will be required. (1.2)

*Corequisite:* ARM 133 (C or better) or consent of department

*Course fee*

## Course Information and Descriptions

### **ARM 151 Mechanical Systems I (.5-1) 1 Hour**

This course covers basic safety protocol, the role of mechanical components in complex mechatronic systems, the flow of energy in a mechatronic system, calculation of force, accelerations, speed, torque, etc. and basic maintenance and systems-level troubleshooting. (1.2)

*Prerequisite:* ELI Accuplacer score of 221 or higher, APT score of 80 or higher, ELI 103 (C or better), ELI 104 (C or better), ELI 110 (C or better), or College Reading and Writing Readiness AND Basic Algebra Readiness.

*Course fee*

### **ARM 152 Mechanical Systems II (.5-1) 1 Hour**

This course covers gears and gear drives, chain and sprocket systems, power transmission, pulley drives, synchronous drives, lubrication requirements of mechanical components, analyzing technical data sheets, and basic troubleshooting. (1.2)

*Corequisite:* ARM 151 (C or better) or consent of department

*Course fee*

### **ARM 153 Mechanical Systems III (.5-1) 1 Hour**

This course will cover mechanical shafts, couplings and bearings, lubrication, preventative and predictive maintenance of shafts, couplings, bushings, seals and bearings, alignment and troubleshooting. (1.2)

*Corequisite:* ARM 152 (C or better) or consent of department

*Course fee*

### **ARM 154 Mechanical Systems IV (.5-1) 1 Hour**

This course will cover clutches and brakes, linear motion technology, flexible elements and troubleshooting the mechanical components in a complete mechatronic system. (1.2)

*Corequisite:* ARM 153 (C or better) or consent of department

*Course fee*

### **ARM 155 STEM Workplace Professional Skills (1-0) 1 Hour**

This course introduces students to principles of professional behavior in the industrial workplace. It covers the individual attitude and behavioral skills that are important to a person's success in an industrial environment. Students are typically enrolled in STEM technical career areas such as mechatronics, environmental technology, machine tool trades and other similar career areas. (1.2)

### **ARM 156 Electrical Systems I (.5-1) 1 Hour**

This course will cover the basic electrical components in a mechatronic system. Topics covered will include electrical safety; current, voltage, resistance and power in AC and DC circuits; principles of resistance, inductance, capacitance, impedance, frequency, magnetism and transformers; basic function of AC/DC power supplies; operation of multimeters, oscilloscopes, frequency counters, wiggys, logic probes and amp clamps. (1.2)

*Prerequisite:* ELI Accuplacer score of 221 or higher, APT score of 80 or higher, ELI 103 (C or better), ELI 104 (C or better), ELI 110 (C or better), or College Reading and Writing Readiness AND Basic Algebra Readiness.

*Course fee*

### **ARM 157 Electrical Systems II (.5-1) 1 Hour**

This course will cover fundamentals of parallel circuits, balancing bridges, reed switches, current dividers, voltage dividers, relays, indicators, solenoids and troubleshooting. (1.2)

*Corequisite:* ARM 156 (C or better) or consent of department

*Course fee*

### **ARM 158 Electrical Systems III (.5-1) 1 Hour**

This course will cover electromagnetism; switches; photoelectric, capacitive, and inductive sensors; DC motor and generator introduction; AC motor and circuitry introduction; waveforms; instrumentation, and troubleshooting techniques. (1.2)

*Corequisite:* ARM 157 (C or better) or consent of department

*Course fee*

### **ARM 159 Electrical Systems IV (.5-1) 1 Hour**

This course will cover capacitors, inductors, diodes, transistors, wiring diagrams, DC power supplies, transformers, complete mechatronic systems and systems troubleshooting. (1.2)

*Corequisite:* ARM 158 (C or better) or consent of department

*Course fee*

### **ARM 171 Automation I (.5-1) 1 Hour**

This course will cover electrical safety, fundamentals of DC motor operations, starting methods for DC motors, speed control, and troubleshooting DC motors, introduction to Programmable Logic Controllers (PLCs) and PLC terminology, hardware components and general classification of PLCs. (1.2)

*Prerequisite:* ELI Accuplacer score of 221 or higher, APT score of 80 or higher, ELI 103 (C or better), ELI 104 (C or better), ELI 110 (C or better), or College Reading and Writing Readiness AND Basic Algebra Readiness.

*Course fee*

### **ARM 172 Automation II (.5-1) 1 Hour**

This course will cover fundamentals of AC motors, intro to 3-phase distribution, transformers, PLC architecture, peripheral support devices, analog and digital circuit structures, and Boolean algebra. (1.2)

*Corequisite:* ARM 171 (C or better) or consent of department

*Course fee*

### **ARM 173 Automation III (.5-1) 1 Hour**

This course covers AC induction motors, AC motor starting methods, AC motor speed control, and PLC input/output module devices and symbols. (1.2)

*Corequisite:* ARM 172 (C or better) or consent of department

*Course fee*

### **ARM 174 Automation IV (.5-1) 1 Hour**

This course will cover regenerative braking, National Electrical code (NEC) standards for installation and overload protection of motors, relay logic and ladder logic diagrams, circuit diagrams, scan time, and fundamentals of PLC programming. (1.2)

*Corequisite:* ARM 173 (C or better) or consent of department

*Course fee*

### **ARM 175 Automation V (.5-1) 1 Hour**

This course will cover entering and editing a PLC program, monitoring a program, component addressing, analog to digital conversions, PLC program troubleshooting and troubleshooting codes. (1.2)

*Corequisite:* ARM 174 or consent of department

*Course fee*

### **ARM 176 Automation VI (.5-1) 1 Hour**

This is course will cover PLC data manipulation instruction, closed loop systems, arithmetic functions, and technical limits in implementation and how to overcome and improve them. (1.2)

*Corequisite:* ARM 175 (C or better) or consent of department

*Course fee*

**ARM 177 Automation VII (.5-1) 1 Hour**

This course will cover PLC timers, counters, and subroutines. (1.2)  
*Corequisite:* ARM 176 (C or better) or consent of department  
*Course fee*

**ARM 178 Automation VIII (.5-1) 1 Hour**

This course will cover identification of PLC logic and hardware faults and symptoms, isolating and correcting a fault, and troubleshooting procedures for closed loop systems. (1.2)  
*Corequisite:* ARM 177 (C or better) or consent of instructor  
*Course fee*

**ARM 191 Pneumatics and Hydraulics I (.5-1) 1 Hour**

This course will cover basic safety rules and standards when working with mechatronic systems, introduction to fluid power, basic principles of hydraulics, fluid power components, hydraulic fluids and basic principles of pneumatics. (1.2)  
*Prerequisite:* ELI Accuplacer score of 221 or higher, APT score of 80 or higher, ELI 103 (C or better), ELI 104 (C or better), ELI 110 (C or better), or College Reading and Writing Readiness AND Basic Algebra Readiness.  
*Course fee*

**ARM 192 Pneumatics and Hydraulics II (.5-1) 1 Hour**

This course will continue coverage of basic pneumatics and will also cover power supplies, vacuum pumps, circuit diagrams and system tracing, pneumatic components, and system operation and troubleshooting. (1.2)  
*Corequisite:* ARM 191 (C or better) or consent of department  
*Course fee*

**ARM 193 Pneumatics and Hydraulics III (.5-1) 1 Hour**

This course will cover electronic controls, hydraulic cylinders and directional control valves, technical documentation, measurements and adjustments on a fluid system, troubleshooting and predictive/preventative maintenance. (1.2)  
*Corequisite:* ARM 192 (C or better) or consent of department  
*Course fee*

**ARM 194 Pneumatics and Hydraulics IV (.5-1) 1 Hour**

This course covers pressure control valves, flow control, speed control, mobile hydraulic systems and complete fluids troubleshooting in a mechatronics system. (1.2)  
*Corequisite:* ARM 193 (C or better) or consent of department  
*Course fee*

**ARM 196 Electrical Systems Capstone (.5-1) 1 Hour**

This is the second module of a four module, one credit hour capstone course which will provide students with the skills and knowledge to repair, operate and troubleshoot an entire mechatronics system. The emphasis in this module will be electric and electronic systems. (1.2)  
*Prerequisite:* ARM 153, ARM 158, and ARM 173 (all C or better)  
*Course fee*

**ARM 197 Pneumatic and Hydraulic Systems Capstone (.5-1) 1 Hour**

This is the third module of a four module, one credit hour capstone course which will provide students with the skills and knowledge to repair, operate and troubleshoot an entire mechatronics system. The emphasis in this module will be pneumatic and hydraulic systems. (1.2)  
 Concurrent Enrollment: ARM 196  
*Course fee*

**ARM 198 Complete Systems Integration (.5-1) 1 Hour**

This is the fourth module of a four module, one credit hour capstone course which will provide students with the skills and knowledge to repair, operate and troubleshoot an entire mechatronics system. The emphasis in this module will be PLC and whole mechatronic system diagnostics. (1.2)  
 Concurrent Enrollment: ARM 197  
*Course fee*

**ARM 226 Programmable Automation Technologies (2-2) 3 Hours**

*Approved by ICCB (effective Fall 2017)*  
 This course covers manufacturing technologies, including CNC, CAM, and the use of microcontrollers. The section on CNC includes an introduction to CNC design, commands, and general algorithms. The CAM section explains the use of NC, APT, parametric definitions, and tool geometry. The microcontroller section focuses on microcontroller integration with other electronic elements in a system. The course culminates with the instruction of Assembly Language programming. This course is one of the courses required for the Siemens Level 2 certification in mechatronics. (1.2)  
*Prerequisite:* ARM 133 (C or better)  
*Course fee*

**ARM 266 Advanced Motor Control (2-2) 3 Hours**

*Approved by ICCB (effective Fall 2017)*  
 This course covers advanced motor control as a continuation of Electrical Systems I, II, and III. The first part of the course covers general machine operations, types of braking and loads on a motor, and improving motor efficiency and power. The second part of the course covers control techniques, the role of different sensors in relation to motor operation, troubleshooting techniques and preventive measures that can be taken in order to protect motors. This course is one of the courses required for the Siemens Level 2 certification in mechatronics. (1.2)  
*Prerequisite:* ARM 153 and ARM 158 (both C or better)  
*Course fee*

**ARM 286 Automation Pyramid (2-2) 3 Hours**

*Approved by ICCB (effective Fall 2017)*  
 This course introduces the concept of Totally Integrated Automation by looking at the automation pyramid. Students will start at the field level with analogue sensors and actuators and go up to the control level with programming and networking PLCs. The course covers connecting analogue sensors to analogue modules, STEP 7 functions, and basics of MPI-Bus and PROFIBUS systems. Maintenance and troubleshooting of these bus systems will also be covered. This course is one of the courses required for the Siemens Level 2 certification in mechatronics. (1.2)  
*Prerequisite:* ARM 176, ARM 266, MTH 117 and MTH 123 OR MTH 144 OR MTH 145 (all C or better)  
*Course fee*

### Automotive Collision Repair (ACR)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

#### **ACR 110 Introduction to Automotive Collision Repair (2-2) 3 Hours**

This course provides the beginning automotive collision students with an introduction to careers in the Automotive Collision Repair (ACR) Industry, repair processes, collision shop equipment, tool safety and proper usage, personal protection equipment used in collision repair, and the design and construction of the modern automobile. Classroom discussions and hands-on labs utilizing live vehicles and training aids will be used to enhance proficiencies. *Recommended:* ENG 109 or ELI 109 (1.2)

#### **ACR 112 Non-Structural Repair I (3-4) 5 Hours**

(Formerly ABR 110) This course will focus on the design and construction of the modern automobile. Students are introduced to theory and the fundamentals commonly used in sheet metal repair processes, chemical and plastic welding repair processes, along with removal, installation, and adjustment of moveable vehicle glass. Replacement of exterior bolted vehicle body panels including proper fitment and adjustment, and replacement of exterior lights and trim will also be covered. Classroom discussions and hands-on labs utilizing live vehicles and training aids will be used to enhance proficiencies. (1.2)

*Corequisite:* ACR 110 (C or better)

*Course fee*

#### **ACR 115 Automotive Welding (3-4) 5 Hours**

(Formerly ABR 115) This course will introduce the students to theory and the fundamentals of common ferrous and non-ferrous metal welding processes used in the collision repair industry. The course will focus on welding safety, gas welding and cutting, electrical arc welding and cutting, both flat and out-of-position welding techniques, and the five most common weld joints used in automotive collision repair. Classroom discussions and in-lab hands-on welding will prepare the student to take the I-CAR Welding Qualification Exams. (1.2)

*Corequisite:* ACR 110 (C or better)

*Course fee*

#### **ACR 119 Paintless Dent Removal (2-2) 3 Hours**

This course will introduce the students to theory and the fundamentals of common Paintless Dent Removal (PDR) processes, along with tools and equipment used in the collision repair industry. The course will focus on: dent theory, vehicle inspection, dent identification, PDR tool identification and recommended application, PDR vocabulary, hand and eye coordination, dent access and repair set-up, and final clean up of vehicle finish. Classroom discussions and hands-on labs utilizing live vehicles and training aids will be used to enhance proficiencies. (1.2)

*Prerequisite:* ACR 110 and ACR 112 (formerly ABR 110) (both C or better)

#### **ACR 131 Automotive Refinishing I (2-2) 3 Hours**

(Formerly ABR 130) This course will introduce the students to theory and basic fundamentals of vehicle finishing processes. The course will focus on paint and finishing safety, environmental practices, vehicle masking and protection, and surface preparation for the first coat of the finishing process. The course will also cover identification, set-up, and break down of finishing equipment, proper mixing and application of primers, sealers, and single stage paints. Classroom discussions and hands-on labs utilizing live vehicles and training aids will be used to enhance proficiencies. (1.2)

*Corequisite:* ACR 110 (C or better)

*Course fee*

#### **ACR 132 Automotive Refinishing II (3-4) 5 Hours**

(Formerly ABR 131) This course will introduce the students to theory and the fundamentals of base coat and clear coat finishes, identification, set-up, and break down of finishing equipment, along with proper mixing and application of solvent base finishes. Application techniques of automotive color and clear finishes on metal, fiberglass, and automotive plastics will be covered. Classroom discussions and hands-on labs utilizing live vehicles and training aids will be used to enhance proficiencies. (1.2)

*Prerequisite:* ACR 110 and ACR 131 (formerly ABR 130) (both C or better)

*Corequisite:* ACR 215 (ABR 215) (C or better)

*Course fee*

#### **ACR 137 Automotive Mechanical Systems (3-4) 5 Hours**

(Formerly ABR 137) This course will introduce the students to theory and the fundamentals of the steering and suspension systems, drive trains, and braking systems as they apply to a collision repair technician. The course will focus on identification, theories of operation, diagnosis, and repair procedures of the vehicle's mechanical systems as a direct result of a vehicle collision.

Classroom discussions and hands-on labs utilizing live vehicles and training aids will be used to enhance proficiencies. (1.2)

*Corequisite:* ACR 110 (C or better)

*Course fee*

#### **ACR 138 Automotive Electrical Systems (3-4) 5 Hours**

(Formerly ABR 138) This course will introduce the students to theory and the fundamentals of the air conditioning systems, cooling systems, fuel and exhaust systems, and automotive electronic systems as they apply to a collision repair technician. The course will focus on identification, theories of operation, diagnosis, and repair procedures of vehicle electrical systems as a direct result of a vehicle collision. Classroom discussions and hands-on labs utilizing live vehicles and training aids will be used to enhance proficiencies. (1.2)

*Corequisite:* ACR 110 (C or better)

*Course fee*

#### **ACR 212 Non-Structural Repair II (3-4) 5 Hours**

(Formerly ABR 111) This course will introduce the students to theory and the fundamentals of repairing non-bolted vehicle body panels. The course will focus on the removal of interior and exterior trim, hardware, removing and installing stationary glass, non-bolted body panel replacement using both chemical adhesion and fusion processes, proper alignment methods, and application of body seam sealers and foams. Classroom discussions and hands-on labs utilizing live vehicles and training aids will be used to enhance proficiencies. *Note:* Work Experience may be considered to meet the prerequisite. (1.2)

*Prerequisite:* ACR 110, ACR 112 (ABR 110), and ACR 115 (ABR 115) (all C or better)

*Corequisite:* ACR 138 (ABR 138) (C or better)

*Course fee*

**ACR 215 Automotive Detailing (2-2) 3 Hours**

(Formerly ABR 215) This course will introduce students to theory and the fundamentals of interior and exterior vehicle cleaning, and vehicle finish defect correction. The course will focus on: vehicle interior trim identification, soiled/stains identification, interior odor removal/neutralizing and interior cleaning processes. Exterior cleaning and correction processes including identification of vehicle finish defects and finish correction will be discussed. Classroom discussions and hands-on labs utilizing live vehicles and training aids will be used to enhance proficiencies. (1.2)

*Corequisite:* ACR 110 (C or better)

*Course fee*

**ACR 230 Structural Repair (3-4) 5 Hours**

(Formerly ABR 230) This course will introduce the students to theory and the fundamentals of the vehicle's structural system. The course will focus on the identification and analysis of structural damage using both manual and computer measuring systems, determining correct repair procedures, and straightening of structural panels. Replacement or sectioning of structural panels, panel corrosion protection, and restraint system will also be covered. Classroom discussions and hands-on labs utilizing live vehicles and training aids will be used to enhance proficiencies. (1.2)

*Prerequisite:* ACR 110, ACR 112 (formerly ABR 110), and ACR 115 (formerly ABR 115) (all C or better)

*Corequisite:* ACR 137 (C or better)

*Course fee*

**ACR 233 Automotive Refinishing III (3-4) 5 Hours**

(Formerly ABR 133) This course will introduce the students to theory and the fundamentals of color hue, saturation, and brightness and the tinting of automotive finishes. The course will focus on color matching, application of automotive finishes during the blending processes, and spray techniques. Students will also be introduced to waterborne base automotive finishes. Classroom discussions and hands-on labs utilizing live vehicles and training aids will be used to enhance proficiencies. (1.2)

*Prerequisite:* ACR 132 (formerly ABR 131) and ACR 215 (formerly ABR 215) (both C or better)

*Course fee*

**ACR 234 Refinishing IV - Custom Painting (2-2) 3 Hours**

This course will introduce the students to theory and the fundamentals of flames, pin-stripping, wood grains, texture finishes, mural design, gold leafing, air brushing, and graphic design for automotive applications. The course will focus on the design, set-up, and application of custom finishes. Application techniques using air-brushes, mini-jet spray guns, pin stripping brushes, and other non-conventional equipment will also be covered. Classroom discussions and hands-on labs utilizing live vehicles and training aids will be used to enhance proficiencies. (1.2)

*Prerequisite:* ACR 233 (formerly ABR 133) (C or better)

**ACR 235 Damage Analysis and Shop Procedures (2-2) 3 Hours**

(Formerly ABR 235) This course will introduce students to theory and the fundamentals of identifying types of vehicle damages post collision. The course will focus on the preparation of written damage analysis, computerized analysis systems, and training on body shop management and operation systems. The course is designed for students who are interested in pursuing a career within the insurance

industry as a damage analyzer, or a career as a collision shop manager/estimator. Customer relation skills and issues will be discussed. Classroom discussions and hands-on labs utilizing live vehicles and training aids will be used to enhance proficiencies. (1.2)

*Prerequisite:* ACR 110 and ACR 112 (formerly ABR 110) (both C or better)

*Course fee*

## Automotive Technology (AUT)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

**AUT 110 Introduction to Automotive Technology (2-3) 3 Hours**

(Formerly AUT 174) This course provides the beginning automotive technician the opportunity to increase his or her knowledge of certain mechanical actions and reactions related to the automobile. Proper and safe use of hand and precision tools, and use of common automotive supplies, such as bolts, gaskets, will be covered. (1.2)

*Course fee*

**AUT 111 Engine Repair (3-3) 4 Hours**

(Formerly AUT 171) This course covers repair of engines, including theory, diagnosis, measurement, light machining, and correct reassembly procedures. The lubrication, cooling, and fuel support systems are included.

*Note:* The students will be required to provide their own basic tools. (1.2)

*Corequisite:* AUT 110 (formerly AUT 174)

*Course fee*

**AUT 112 Braking Systems (3-3) 4 Hours**

(Formerly AUT 175) This course provides instruction in the theory of operation, diagnosis, and servicing of automotive drum and disc brake systems. Students will perform complete brake service including the proper machining of drums and rotors. Diagonally split brakes, four wheel discs, anti-lock systems will be covered.

*Note:* The students will be required to provide their own basic tools. (1.2)

*Corequisite:* AUT 110 (formerly AUT 174)

*Course fee*

**AUT 113 Suspension and Alignment (3-3) 4 Hours**

(Formerly AUT 176) This course covers theory of operation, diagnosis, maintenance, repair and adjustment procedures pertaining to steering gears, steering linkages, wheels and tires, and suspensions.

*Note:* The students will be required to provide their own basic tools. (1.2)

*Corequisite:* AUT 110 (formerly AUT 174)

*Course fee*

**AUT 131 Auto Electrical I (3-3) 4 Hours**

(Formerly AUT 172) This course offers the beginning automotive technician an opportunity to gain understanding of the theory, operation, and testing of basic electricity, the automotive battery, starting systems, charging systems, and lighting systems.

*Note:* Students will be required to provide their own basic tools. (1.2)

*Corequisite:* AUT 110 (formerly AUT 174)

*Course fee*

## Course Information and Descriptions

### **AUT 132 Manual Drive Train and Axles (3-3) 4 Hours**

(Formerly AUT 273) This introductory course focuses on the repair and overhaul of manual transmissions, transaxles and drive line components. Theories of operation, diagnosis, maintenance, and repair procedures pertaining to manual transmissions, transaxle and drive line components are covered.

*Note:* The students will be required to provide their own basic tools. (1.2)

*Corequisite:* AUT 110 (formerly AUT 174)

*Course fee*

### **AUT 217 Automotive Service Consulting (3-0) 3 Hours**

In this course the student will study the principles and procedures involved in operation of an automotive service facility as a service consultant. Communication both in terms of customer relations and internal relations with service facility personnel is discussed. In addition, computerized databases, written communication with respect to estimates, repair orders, and invoices is covered as well as communication with customers by telephone. Service/Maintenance intervals, warranty, service contracts, service bulletins, and campaign recalls relative the vehicle identified is explained. Sales skills relative to service needs and shop operations relative to efficient workflow and industry procedures are presented. (1.2)

### **AUT 231 Auto Electrical II (3-3) 4 Hours**

(Formerly AUT 173) This course covers the theory of operation, diagnosis, and repair of body wiring, lighting circuits, accessories, gauges, and networks.

*Note:* The students will be required to provide their own basic tools. (1.2)

*Prerequisite:* AUT 131 (formerly AUT 172) (C or better)

*Course fee*

### **AUT 232 Automatic Transmission and Transaxle (3-3) 4 Hours**

(Formerly AUT 274) This course focuses on the repair and overhaul of automatic transmissions. Theories of operation, diagnosis, maintenance, and repair procedures pertaining to automatic transmissions, automatic transaxles, and torque converters are covered.

*Note:* The students will be required to provide their own basic tools. (1.2)

*Prerequisite:* AUT 131 (formerly AUT 172) (C or better)

*Course fee*

### **AUT 233 Advanced Driveline Systems (2-3) 3 Hours**

(Formerly AUT 280) This course covers advanced topics in design and diagnosis for manual transmission, automatic transmission, coupling devices, four wheel drive (4WD) systems, and all wheel drive (AWD) systems. In addition current trends and future technologies in driveline systems will be examined. This course is designed for students and professionals specializing in driveline technologies.

*Note:* Students will be required to provide their own basic tools. (1.2)

*Prerequisite:* AUT 232 (formerly AUT 274) and AUT 132 (formerly AUT 273) (all C or better) or Consent of Instructor with current A2 and A3 Automotive Service Excellence (ASE) certifications or approved work experience

### **AUT 251 Powertrain Controls (3-3) 4 Hours**

(Formerly AUT 272) This course focuses on the diagnosis, testing, and service of computerized powertrain control systems. Topics will include diagnosis and repair of computer and network operation, sensors and inputs, advanced charging, starting and ignition system. Advanced electronic test equipment including Scan Tools, DMM's and Oscilloscopes will be emphasized.

*Note:* Students will be required to bring their own tools (1.2)

*Prerequisite:* AUT 111 (formerly AUT 171), AUT 131 (formerly AUT 172) (all C or better)

*Course fee*

### **AUT 252 Powertrain Management (3-3) 4 Hours**

(Formerly AUT 276) This course provides students with the opportunity to review and enhance their theory and service skills in automotive electrical systems, fuel systems, engine mechanical diagnosis, emission control systems, and electronic engine control systems. Students will work with engine analyzers and hand-held test equipment common to the automotive service industry.

*Note:* The students will be required to provide their own basic tools. (1.2)

*Prerequisite:* AUT 111 (formerly AUT 171), AUT 131 (formerly AUT 172), AUT 231 (formerly AUT 173) and AUT 251 (formerly AUT 272) (all C or better)

*Course fee*

### **AUT 275 Air Conditioning and Heating (3-3) 4 Hours**

This course gives the automotive technician the opportunity to gain an understanding of the theory of automotive air conditioning, heating and ventilation systems and the related service procedures. Students may also gain certification in recycling and recovery of refrigerants.

*Note:* The students will be required to provide their own basic tools. (1.2)

*Prerequisite:* AUT 131 (formerly AUT 172) (C or better)

*Course fee*

*Typically offered spring and summer only*

### **AUT 290 Advanced Specialization (1-7) 4 Hours**

(Formerly AUT 277) This is the capstone course in the automotive program. It gives the student the opportunity to practice operations in a shop environment and situation similar to the repair industry. All areas of the automobile are covered including engines, brakes, suspension, transmissions, electrical systems, and climate control.

*Note:* The students will be required to provide their own basic tools. (1.2)

*Prerequisite:* 20 Credits in AUT courses and Consent of Instructor. Students must have earned a grade of C or better in all previous automotive courses.

*Course fee*

### **AUT 299 Special Topics in the Automotive Industry (Variable) 0.5-5 Hours**

This course is designed to provide automotive students with opportunities to explore the diversity of topics, businesses, and products within the automotive industry not specifically addressed by existing courses in the catalog. This course may be taken up to four times, any topic only once, for a maximum of 6 hours towards degree completion. (1.2)

*May be taken four times, but any topic only once*

*Typically offered fall only*

## Biology (BIO)

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

### **BIO 111 Human Form and Function (3-2) 4 Hours**

This course is intended to provide students with a preliminary, non-transfer level introduction to human anatomy and physiology. It is designed to prepare students requiring only a technical level of familiarity with human anatomy, providing the background required for fields such as surgical technology and Emergency Medical Technology - Paramedic. (1.2)

*Prerequisite:* College Reading and Writing Readiness  
*Course fee*

### **BIO 120 Environmental Biology (3-2) 4 Hours**

This course focuses on the relationships between humans and the environment. Topics include ecology, population biology, modification of our environment, resource use, land use planning, pollution, and energy. The goal is to better understand the biological and social problems that human use and misuse of the environment cause. Students may not receive credit for both BIO 120 and BIO 140.

*Note:* Required, local field trips are scheduled during several (approximate 1/2) of the lab periods. Students are responsible for their own transportation to and from field sites. This course is recommended for non-science majors needing a one-semester lab science course. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 -AND- Basic Algebra Readiness  
*Course fee*

**IAI: L1 905L**

### **BIO 123 Principles of Biology (3-2) 4 Hours**

This course introduces basic biological principles of life processes held in common by all organisms. Topics covered include the chemical and physical basis of life, cell structure and function, concepts of heredity, population genetics, and evolution.

*Note:* Though this course will provide a general understanding of the basics of cellular biology qualifying it as general education course it will also provide a foundation for those students potentially entering an allied health program (dental hygiene, nursing, medical images, etc.). (1.1)

*Prerequisites:* MTH 102 or MTH 105 (both C or better) or an appropriate score on the Math Placement Test or Math ACT of 22 or higher - AND - College Reading and Writing Readiness  
*Course fee*

**IAI: L1 900L**

### **BIO 126 Local Flora (1-2) 2 Hours**

Introduces lab and field identification of plants of northeastern Illinois. Students use taxonomic keys and make useful collections of plants from various habitats.

*Note:* Field trips during scheduled class time are an essential part of this course and are, therefore, required. The cost of travel to the site of the field work will be borne by the student. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness  
*Course fee*

*May be taken three times, but any topic only once*

### **BIO 127 Introduction to Evolution (3-0) 3 Hours**

This course examines the concept of evolution and mechanisms by which evolution proceeds. An analysis of the evidence for evolution, a section on basic genetics, and a brief treatment of challenges to evolution are included. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

**IAI: L1 907**

### **BIO 128 Natural History of Selected Areas (2-2) 3 Hours**

This course examines a specific biogeographical area that has been selected for its unique biological communities. Organisms and ecological relationships are considered, and the effects of human activity are emphasized. Some of the areas that have been studied include the American Tropics, the Everglades, and the Appalachian Mountains.

*Note:* This course is taught as a field course and should be considered a general education elective; it will NOT meet the CLC laboratory science requirement. Camping, backpacking, and/or canoeing may be included. Travel expenses are paid by the student. (1.1)

*May be taken twice, but any topic only once*

### **BIO 140 Environmental Biology without Lab (3-0) 3 Hours**

This non-lab course studies environmental issues that arise from the interaction of humans and the environment. Topics include ecology, population biology, modification of our environment, resource use, land use planning, and energy. The goal is to better understand both the problems brought about by human use and misuse of the environment and potential solutions for those problems. Students may not receive credit for both BIO 140 and BIO 120. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 -AND- Basic Algebra Readiness

**IAI: L1 905**

### **BIO 141 Concepts in Biology (3-2) 4 Hours**

This course emphasizes scientific inquiry through selected concepts of biology, such as organization, function, heredity, evolution and ecology. Biological issues with personal and social implications will be introduced to enable students to make informed decisions. A laboratory component will reinforce concepts introduced in the lecture portion of class.

*Note:* This course is recommended for non-science majors needing a one-semester lab science course and is not intended for students wishing to enter an allied health or pre-professional field. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 -AND- Basic Algebra Readiness

*Course fee*

**IAI: L1 900L**

### **BIO 143 Biology Laboratory (0-3 hours) 1 Hour**

This laboratory course is designed for students who have taken the lecture component of a general biology course at another institution and are seeking credit for BIO 123 - Principles of Biology in order to meet a prerequisite for BIO 244 - Anatomy & Physiology or BIO 246 - Microbiology. Students will participate in labs that reinforce concepts such as scientific method, biomolecules, respiration, enzymes, and natural selection. Department consent required. (1.1)

*Course fee*

## Course Information and Descriptions

### **BIO 149 Genetics and Society (3-0) 3 Hours**

This course examines cell structure and function, the nature of the gene, cell division (mitosis vs. meiosis), Mendelian genetics, hereditary disorders, recombinant DNA technology, the genetic evidence supporting evolution, and ethical issues that arise due to our increased knowledge and technology as it relates to genetics. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*  
**IAI: L1 906**

### **BIO 161 General Biology I (3-3) 4 Hours**

This course introduces general biological principles of life processes common to all organisms. Topics covered include the nature of life, unifying themes underlying biology, chemical basis of life, cell structure and function, energetics, cell reproduction, concepts of genetics and inheritance patterns, molecular genetics, and biotechnology. This course is the first semester of a two semester sequence intended for biology majors and students seeking careers in medicine, pharmacy, dentistry, occupational therapy, physical therapy, or veterinary medicine.

*Note:* Knowledge of chemistry is helpful. (1.1)

*Prerequisites:* MTH 108 or MTH 107 (both C or better) or appropriate score on the Math Placement Test or Math ACT of 25 or higher AND College Reading and Writing Readiness

*Course fee*

**IAI: L1910L, BIO910**

### **BIO 162 General Biology II (3-3) 4 Hours**

This course examines the following areas of biology: ecology, evolution, systematics, biological diversity, and various systems. Laboratory work includes field and laboratory experiments and computer simulations. This course is the second semester of a two semester sequence intended for biology majors and students seeking careers in medicine, pharmacy, dentistry, occupational therapy, physical therapy, or veterinary medicine. (1.1)

*Prerequisite:* BIO 161(C or better)

*Course fee*

**IAI: L1910L, BIO910**

### **BIO 221 General Zoology (2-4) 4 Hours**

This course examines the structure, function, natural history, and phylogeny of animals. Basic principles of evolution, origins and content of major phyla, and vertebrate phylogeny are included. The evolution of the vertebrates is emphasized. (1.1)

*Prerequisite:* BIO 161(C or better)

*Course fee*

### **BIO 222 General Botany (2-4) 4 Hours**

This course is a comparative study of organisms including photosynthetic protists, fungi, and plants. Morphology, both microscopic and macroscopic, and lifecycle are emphasized with a focus on evolutionary advancements within the taxa. Identification includes representative species of each taxa in addition to plant family characteristics. Ecology with an emphasis on plant conservation is included. (1.1)

*Prerequisite:* BIO 120, BIO 123, BIO 161 or HRT 121 (C or better in any one)

*Course fee*

### **BIO 225 Environmental Problems (2-4) 4 Hours**

This course is a continuation of the study of ecology and current environmental problems that were introduced in BIO 120. Topics include hazardous wastes and chemicals, species extinction and management, and pollution of Lake Michigan. The emphasis in lab will be to study various types of pollution and ecological processes. (1.1)

*Prerequisite:* BIO 120 (C or better)

*Course fee*

### **BIO 226 Field Biology (2-2) 3 Hours**

This course provides students with the opportunity to study plant and animal communities in various biomes. Topics include life histories and interdependence of organisms within the communities, and collection, identification, and preservation of specimens. Department consent required.

*Note:* This course is taught as a field course and should be considered a general education elective; it will NOT meet the CLC laboratory science requirement. Camping, backpacking, and/or canoeing may be included. Travel expenses are paid by the student. (1.1)

*May be taken twice, but any topic only once*

### **BIO 244 Anatomy and Physiology I (3-2) 4 Hours**

This course is the first of a two semester Anatomy and Physiology sequence that begins with an introduction to homeostasis and feedback loops. The structure and function of the following body systems will be explored: the integumentary system, skeletal system, muscular system and nervous system. Within each body system, students learn the normal anatomy and physiology of the system as well as some diseases associated with each system. Human skeletons, human models, preserved sheep organs, and preserved cats are used in labs as representatives of human anatomy. (1.1)

*Prerequisite:* BIO 123 (formerly BIO 121) or BIO 161 (all C or better)

*Course fee*

### **BIO 245 Anatomy and Physiology II (3-2) 4 Hours**

This course is a continuation of BIO 244. It builds on the general information about homeostasis and the specific body systems covered in BIO 244. Within each body system, students learn the normal anatomy and physiology of the system as well as some diseases associated with each system. This course begins with the endocrine system, followed by the cardiovascular system, lymphatic and immune systems, respiratory system, digestive system (including metabolism), urinary system (including fluid and electrolyte regulation), and the reproductive system. Human skeletons, human models, preserved sheep organs, and preserved cats are used in labs as representatives of human anatomy. (1.1)

*Prerequisite:* BIO 124 or BIO 244 (C or better)

*Course fee*

### **BIO 246 Microbiology (2-4) 4 Hours**

This course examines microorganisms with an emphasis on the bacterial groups. Morphology, principal activities and properties of bacteria, yeasts, molds, viruses, selected algae, and protozoan will be discussed. The role of microorganisms in natural systems, infection, immunity, foods, and industry will be covered. Laboratory techniques in handling, culturing, and identifying microorganisms will be emphasized. (1.1)

*Prerequisite:* BIO 123 (formerly BIO 121) or BIO 161 (all C or better)

*Course fee*

**BIO 299 Special Topics in Biology (Variable) 1-3 Hours**

This course addresses the in-depth study of special topics in biology that do not have specific courses in the catalog. Course content will vary depending on the topic being studied. Topics may include environmental issues, risks to human health, implications of recent research in Biology, etc. This course is repeatable up to three times, any topic only once, for a maximum of 6 hours towards degree completion. (1.1)

*Course fee*

*May be taken four times for credit toward degree*

## Business Administration (BUS)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

**BUS 111 Fundamentals of Finance (3-0) 3 Hours**

Study of basic methods and quantitative tools of Business Finance. Short and long term investment decision making for businesses and individuals. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND ACC 112 or higher ACC course

*Typically offered fall only*

**BUS 113 Human Resource Management (3-0) 3 Hours**

***Course Modification effective Fall 2017. For details, refer to addendum.***

Personnel functions, wage systems, incentives, fringe benefits, cost budgeting, policy implementation, leadership styles, and disciplinary procedures. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Typically offered spring only*

**BUS 115 Elements of Supervision (3-0) 3 Hours**

This course introduces the role of the supervisor and how it fits in the overall management of an organization. Emphasis is on how the supervisor can impact a department's productivity. Topics will include: supervisory planning, time management, organizing and delegating tasks, training and coaching employees, Equal Employment Opportunity guidelines, labor relations, managing conflict and stress in the work environment, creating a safe and healthy work environment, and productivity improvement. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Typically offered spring only*

**BUS 119 Personal Finance (3-0) 3 Hours**

This course covers the basics of financial planning, including budgeting, managing expenses, investments, insurance, estate planning, retirement planning and tax planning. Basic investment principles, such as forms of risk, historical returns, and risk/return tradeoff are explored. The major investment alternatives, stocks, bonds, mutual funds, and real estate, are examined. (1.2)

*Prerequisite:* College Reading and Writing Readiness

**BUS 121 Introduction to Business (3-0) 3 Hours**

This course provides a broad overview of the principles, functions and careers in business. Topics included are: economics, global business, ethics, business structures, entrepreneurship, management, marketing, accounting, finance and operations management. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**BUS 122 Principles of Marketing (3-0) 3 Hours**

Introduction to marketing fundamentals, nature of competition, basic marketing problems, policies of business enterprises, and marketing operation planning.

*Note:* Prior or concurrent enrollment in BUS 121 is strongly recommended. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

**BUS 131 Entrepreneurship (3-0) 3 Hours**

This course focuses on the entrepreneurial process and prepares students for developing a mindset for thinking creatively. The course examines the concepts and tools related to the development of new entrepreneurial ventures, including developing an idea, starting a new venture, growing the venture, successfully harvesting (selling) it and starting again. In a pragmatic way, students are engaged to discover critical aspects of entrepreneurship and what level of competencies, experience, attitudes, resources, and networks are required to pursue entrepreneurial opportunities. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* BUS 121

*Typically offered spring only*

**BUS 132 Business Ethics (3-0) 3 Hours**

This course introduces students to the principal ethical theories and concepts of human conduct and character and will provide a critical evaluation of these theories and concepts as they apply to particular moral problems and business decision making and policy. The class will evaluate the principles, values and standards that guide behavior in the business world. Students will study and analyze various business scenarios to determine ethical and non-ethical behavior.

This course will include a large amount of case study work to aid students in identifying ethical behavior in the current business environment and provide opportunities to practice sound ethical decision making. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* BUS 121

**BUS 212 Business to Business Marketing (3-0) 3 Hours**

Business to Business (B2B) Marketing provides students with an understanding of how to market products and services to organizations rather than consumers. Market development, market mix concepts and target market planning are studied. (1.2)

*Prerequisite:* BUS 121 or BUS 122

*Typically offered fall only*

**BUS 213 Principles of Professional Selling (3-0) 3 Hours**

An efficient, skilled sales force can positively impact every organization. Principles of Professional Selling provides students with the skills to efficiently and effectively communicate value and develop long-term relationships with customers and prospects. Students will see how a win-win customer relationship develops. They will learn to recognize a problem, develop solutions, and provide the important post-sale service and support. (1.2)

*Prerequisite:* BUS 121

*Typically offered spring only*

## Course Information and Descriptions

### **BUS 214 Advertising (3-0) 3 Hours**

This course provides an understanding of advertising within the integrated marketing communications of the firm. Principles and practical applications of promotional research, consumer behavior, media identification and selection, creative strategy, copywriting, layout, budgeting and legal aspects of advertising and promotion will be covered. Students will develop an advertising campaign for a single product, service or small business. (1.2)

*Prerequisite:* BUS 121

*Typically offered spring only*

**IAI: MC 912**

### **BUS 215 Operations Management (3-0) 3 Hours**

This class will give students a broad, practical perspective towards the field of Operations Management, a core business function. Students will examine concepts and problems encountered in planning, operating and controlling the production of goods and services. Topics include scheduling, inventory management, logistics, quality assurance, supply chain management, facility location and the use of state of the art computer systems to better manage operations. (1.2)

*Prerequisite:* Basic Algebra Readiness and BUS 121

*Typically offered spring only*

### **BUS 219 Small Business Management (3-0) 3 Hours**

This course is focused on the role of small business in our society, the problems and opportunities connected with starting a new venture, and the management skills required to successfully operate the on-going business. Students will explore the strategic and organizational factors that lead to profitability and growth. The course is intended to meet the needs of those now managing a small business, those considering the possibilities of entrepreneurship and those who wish to learn more about how small businesses operate. (1.2)

*Prerequisite:* BUS 121 (C or better) or Department Consent

*Typically offered fall and spring only*

### **BUS 221 Business Law I (3-0) 3 Hours**

This course introduces principles of American law governing business and personal transactions. Areas covered include contracts and agency. The course also introduces the American legal environment: the court system, administrative agency procedures, and government regulation in the areas of antitrust, employment and consumer transactions. (1.1)

*Prerequisite:* BUS 121 or PLS 110

### **BUS 222 Business Law II/Corporate and Securities Law (3-0) 3 Hours**

This course provides an overview of various forms of business structures; including sole proprietorships, partnerships and corporations as well as other forms of business. Additional topics covered include the Uniform Commercial Code (UCC), leases, secured transactions and the laws administered by the Securities and Exchange Commission. The student will learn how to draft documents that are important to these fields of law. BUS 222 and PLS 212 are cross-listed. (1.1)

*Prerequisite:* PLS 110 (C or better) or BUS 221

*Typically offered spring and summer only*

### **BUS 223 Principles of Management (3-0) 3 Hours**

This course is a study of management theories, emphasizing the management functions of planning, decision-making, organizing, leading and controlling which are relevant in a variety of organizations. Emphasis is on theories, concepts, and models related to these key management functions with the intent to better understand the manager's role in contributing to an organization's desired objectives. (1.2)

*Prerequisite:* BUS 121

### **BUS 233 Management Skills (3-0) 3 Hours**

This course focuses on the actions of managers as they perform their planning/leading/organizing/controlling responsibilities. Students in this course will both study and practice critical management competencies. These competencies include problem-solving, relationship building, motivating, leading teams, performance management, conflict resolution, delegating, and change management.

AOS 233 and BUS 233 are cross-listed. (1.2)

*Prerequisite:* BUS 121 or AOS 214 or Department Consent.

*Typically offered spring only*

### **BUS 234 Principles of Retailing (3-0) 3 Hours**

This course is focused on the world of retailing from a managerial viewpoint. Students will explore the different types of retailers, multichannel retailing, consumer buying behavior, retail marketing strategies, selecting retail site locations, supply chain management, effective merchandising, pricing, store layout/design, store management and customer service. The course is intended to meet the needs of those now working in a retail environment and those wishing to learn more about how retail businesses operate. (1.2)

*Prerequisite:* BUS 121 (C or better) or Department Consent

### **BUS 237 Managerial Communication (3-0) 3 Hours**

This course will guide students in developing the communication skills needed to be successful as a manager. The course is organized in a workshop format, in which students develop, refine and practice communication skills used by successful managers. The course includes a focus on both oral and written skills used in business at a management level. The content of the course will also include a focus on organization, non-verbal (both delivery and listening) and presentation skills. At the conclusion of the course, students will be able to prepare written business documents such as proposals, memos, and emails; organize and conduct meetings and write meeting minutes; and make formal and informal business presentations. Students will have developed communication skills that effectively inform and persuade their audience in addition to enhancing their credibility as managers.

AOS 237 and BUS 237 are cross-listed. (1.2)

*Prerequisite:* AOS 111 or ENG 121

*Typically offered fall and spring only*

### **BUS 238 Project Management (3-0) 3 Hours**

This course will focus on the concepts and tools related to the management of projects within organizations. Students will examine all phases of project management including planning, scheduling, control, and termination. Topics include writing project plans, developing work breakdown structures, project scheduling, resource management, earned value analysis, and project risk management. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Recommended:* BUS 121

*Typically offered fall and spring only*

**BUS 239 Social Media/Social Networking in Business (3-0)****3 Hours**

This course provides an introduction to the use of social media and social networking within a business context. The course provides an overview of the role of social media and networking in building and managing customer relationships as a component of the marketing program. Students will develop the tools to communicate with customers using the major social network platforms such as Facebook, LinkedIn, Twitter and blogs.

AOS 239 and BUS 239 are cross-listed. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

*Typically offered spring only*

**BUS 253 Leadership (3-0)****3 Hours**

This course will focus on the elements and concepts related to leadership. Various levels of leadership concepts will be examined including self-leadership, entrepreneurial leadership, team leadership, strategic leadership, and organizational leadership. Topics include leadership vision, culture and values, and strategy development and execution. Personal leadership competencies such as emotional intelligence, cross-cultural competencies, and leveraging via delegation and talent development will also be covered.

AOS 253 and BUS 253 are cross-listed. (1.2)

*Prerequisite:* BUS 121 or Department Consent.

*Recommended:* BUS 223 or BUS 233 or AOS 233

*Typically offered fall only*

**BUS 290 Business Plan Development (3-0)****3 Hours**

This course is focused on the development of a comprehensive business plan to serve as a “blueprint” for running a small business, written in a format suitable for presentation to stakeholders and potential investors. Students will conduct industry/market research, assess feasibility, and analyze strategic business models as part of the business plan development process. Additional material on taxes, interpersonal skills, customer service, Small Business Administration services, and related issues will be presented to ready the student to enter the world of small business. (1.2)

*Prerequisite:* BUS 121 (C or better) or Department Consent

*Typically offered fall only*

**BUS 299 Selected Topics in Business (Variable) 1-3 Hours**

This course is designed to provide students with more information about specialized areas of business. These areas may be current issues that are of a career or management development nature.

*Note:* Topics will be identified for each section of the course;

*prerequisite depends upon the selected topic. (1.2)*

*May be taken four times for credit toward degree*

**Chemistry (CHM)**

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

**CHM 120 Chemical Concepts (3-2)****4 Hours**

A survey course that includes the fundamentals of chemical composition, chemical calculations, solutions, states of matter, the periodic table, acids, bases and pH, radioactivity and nuclear processes, and a brief overview of organic and biochemistry.

*Note:* Recommended for non-science majors. (1.1)

*Prerequisites:* MTH 102 or MTH 105 (both C or better) or an appropriate score on the Math Placement Test or Math ACT of 22 or higher - AND - College Reading and Writing Readiness

*Course fee*

**IAI: P1 902L**

**CHM 121 General Chemistry I (3-4)****5 Hours**

This course develops an analytical approach to solving chemical problems. The student is provided with principles that relate chemical structure, energy and reactivity and is introduced to the following topics: composition and properties of matter, nomenclature, stoichiometry, solutions, gas laws, thermochemistry, atomic structure and periodic trends, bonding, molecular geometries, and properties of liquids, solids and gases. This course is the first semester of a two semester sequence intended for chemistry majors, science majors, engineering majors, and students seeking careers in pre-professional health related fields. (1.1)

*Prerequisite:* One year of High School Chemistry (C or better) or CHM 120 (C or better) AND MTH 108 or MTH 107 (both C or better) or appropriate score on the Math Placement Test or Math ACT of 25 or higher AND College Reading and Writing Readiness

*Course fee*

**IAI: P1 902L, CHM 911**

**CHM 123 General Chemistry II (3-4)****5 Hours**

This course is the second semester of a two semester sequence intended for chemistry majors, and students seeking careers in pre-professional health-related fields. It continues some of the topics presented in CHM 121, General Chemistry I, in more detail. The student is also introduced to the following topics: dynamics of solution formation, various ways to express solution concentrations, colligative properties, chemical kinetics, reaction mechanisms, chemical equilibrium, acids, bases, hydrolysis, buffers, titration, solubility, thermodynamics, and electrochemistry. The course also includes introductory work in qualitative analysis. (1.1)

*Prerequisite:* CHM 121 (C or better)

*Course fee*

**IAI: CHM 912**

**CHM 125 Elementary Organic Chemistry (3-4)****5 Hours**

Survey of organic chemistry. Provides a basic understanding of nomenclature, structure, stereochemistry, and reactivity. Introduces spectroscopy and biochemistry. (1.1)

*Prerequisite:* CHM 121 (C or better)

*Course fee*

## Course Information and Descriptions

### CHM 140 Chemistry for a Changing World (3-0) 3 Hours

This course emphasizes some basic principles of chemistry and their relationship to the modern world. This course will foster an interest in science by preparing students to make effective decisions by developing thinking skills that can be applied to challenges in a changing world.

*Note:* students may not receive credit towards a degree for both CHM 140 and CHM 142. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: P1 903**

### CHM 142 Chemistry for a Changing World-LAB (3-2) 4 Hours

This course emphasizes basic principles of chemistry and their relationship to the modern world. This course will foster an interest in science by preparing students to make effective decisions by developing thinking skills that can be applied to challenges in a changing world. Topics include air and water pollution, energy resources, basic biochemistry, and current scientific developments involving chemistry.

*Note:* students may not receive credit towards a degree for both CHM 140 and CHM 142. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

**IAI: P1 903L**

### CHM 161 Chemistry Laboratory (0-4) 2 Hours

This laboratory course is intended for students who have taken a lecture component of a general chemistry course at another institution and are seeking credit for CHM 121 – General Chemistry I so as to meet a prerequisite for CHM 123 – General Chemistry II. Students will participate in labs that emphasize concepts such as safety, scientific method, physical and chemical properties, gases, thermochemistry, measurements and calculations, chemical reactions, titration, molecular models, and spectrophotometry. Department consent required. (1.1)

*Course fee*

### CHM 222 Organic Chemistry I (3-4) 5 Hours

This course introduces students to theoretical concepts and experimental techniques related to the chemistry of carbon compounds. Topics will include nomenclature, acid-base systems, alkanes, alkenes, alkynes, alkyl halides, alcohols, ethers, stereochemistry, and major substitution, addition, and elimination reaction mechanisms. The laboratory experiments will include basic techniques of separation and purification of organic compounds and synthesis of compounds using reactions presented in the lectures. This course is the first of a two-semester sequence and is intended for chemistry majors and students seeking careers in pre-professional medical-related fields. (1.1)

*Prerequisite:* CHM 123 (C or better)

*Course fee*

**IAI: CHM 913**

### CHM 223 Organic Chemistry II (3-4) 5 Hours

This course presents the fundamental principles of organic chemistry with an emphasis on the syntheses, reactions, mechanisms, structures and identification of organic compounds. Topics include nomenclature, instrumental analyses, aromatic compounds, carboxylic acids and their derivatives, aldehydes, ketones, condensation reactions, amines, and an introduction to biochemical molecules. Laboratory includes preparation and separation of organic

compounds, analyses of properties and identification of organic compounds. This course is the second semester of a two semester organic chemistry sequence (CHM 222 followed by CHM 223) and is intended for chemistry majors and students seeking careers in other sciences and pre-professional medical-related fields. (1.1)

*Prerequisite:* CHM 222 (C or better)

*Course fee*

**IAI: CHM 914**

## Chinese (CHI)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

### CHI 121 Beginning Chinese I (4-0) 4 Hours

This course is the first semester of a one year introduction to Mandarin Chinese, the official standard language of Mainland China and Taiwan. Emphasis will be on developing basic listening, speaking, reading and writing skills within the context of the modern Chinese culture. (1.1)

### CHI 122 Beginning Chinese II (4-0) 4 Hours

This course is the second semester of a one year introduction to Mandarin Chinese, the official standard language of Mainland China and Taiwan. Listening, speaking, reading and writing skills will be further developed within the context of Chinese culture. (1.1)

*Prerequisite:* CHI 121

### CHI 221 Intermediate Chinese I (4-0) 4 Hours

This course is the first semester of one year of continuing study for beginning Chinese learners who have studied Book I and II, Elementary Chinese Reader, or have equivalent mastery of the Chinese language. Grammar and character writing review with continuation of development of listening, speaking, reading, and writing skills. (1.1)

### CHI 222 Intermediate Chinese II (4-0) 4 Hours

This course continues to expand the knowledge of Chinese grammar, with emphasis in verbal and written communication. Films, short videos, readings and materials from newspapers, magazines, and media are utilized so students explore the Chinese speaking world and cultures based on authentic materials. (1.1)

*Prerequisite:* CHI 221

*Fulfills the CLC I/M Education Requirement.*

**IAI: H1 900**

## Cisco Networking

Cisco Networking courses are listed under Computer  
Information Technology.

## Civil and Environmental Technology (CIV)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

### **CIV 111 Basic Surveying (2-4) 4 Hours**

This course introduces the principles, theory, and equipment of surveying for surveying technicians and surveying transfer students. The course includes development of survey field practices and related computations including steel tape corrections, traverse adjustment, horizontal curves, and area calculations, and introduction to GPS positioning. (1.2)

*Prerequisite:* MTH 117 (MTH 118 recommended) OR MTH 123 (C or better) OR MTH 144 (C or better) OR 28 or higher on the math portion of the ACT OR consent of instructor

*Course fee*

*Typically offered fall only*

### **CIV 113 Construction Inspection and Safety (3-0) 3 Hours**

This course introduces Civil Technology and Construction Management students to the principles of construction inspection and safety, including safety practices, Occupational, Safety, and Health Administration (OSHA) requirements, legal aspects, and applicable specifications, codes and standards. The duties of a project inspector, resident engineer, and building inspector (building official) are discussed. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Typically offered fall only*

### **CIV 214 Civil Materials and Testing (2-2) 3 Hours**

Investigation of properties and testing of materials used in civil and heavy construction with the major focus on concrete, fine-grained soil, and aggregates. Emphasis is on basic material properties and testing methodology, both lab and field.

*Note:* Completion of MTH 117 and CMT 113 is highly recommended. (1.2)

*Course fee*

*Typically offered spring only*

### **CIV 215 Special Problems (2-3) 3 Hours**

Problems of individual interest in civil technology. Advanced study in one or more technical areas such as highway design, pollution control, and surveying may be approved.

*Note:* Student must furnish basic required equipment. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

## Communication (CMM)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

### **CMM 111 Communication Skills (3-0) 3 Hours**

For students in career programs or individuals interested in improving communication skills. Acquaints students with a variety of interpersonal communication concepts and theories designed to improve communication competence. The focus is on interpersonal communication but intrapersonal communication is also addressed. Topics include the communication process and factors influencing it, cultural influences, verbal and non-verbal messages, relational maintenance, and productive conflict strategies. (1.2)

### **CMM 121 Fundamentals of Speech (3-0) 3 Hours**

For students interested in improving their oral communication competency. This course combines a theoretical basis with practical verbal and nonverbal skills to enhance public speaking effectiveness. Students learn how to develop, research, organize, adapt, deliver and critique messages. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: C2 900**

### **CMM 122 Business and Professional Speaking (3-0) 3 Hours**

For students desiring additional and concentrated experience in public speaking. A workshop oriented course covering informative, demonstrative, persuasive and argumentative speaking. Basic goal is for student to think and speak comfortably and effectively before an audience. (1.1)

*Prerequisite:* College Reading and Writing Readiness

### **CMM 123 Dynamics of Small Group Discussion (3-0) 3 Hours**

The study of small groups with an emphasis on decision making and problem solving. A behavioral approach to group communication that includes leadership, interpersonal relationships, communication barriers, conflict resolution, etc. Although of general interest, course should be of special interest to students in business, teaching or psychology programs. (1.1)

*Prerequisite:* College Reading and Writing Readiness

### **CMM 124 Oral Interpretation (3-0) 3 Hours**

Understanding and appreciation of literature through performing it orally in class, both individually and in groups. For students who desire more familiarity with literature and/or students interested in developing their speaking voice. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: TA 916**

### **CMM 125 Communication and Gender (3-0) 3 Hours**

This course explores how gender influences the communications process. Components of male and female, male and male, female and female, interactions and how each affects our ability to communicate across and within the sexes are reviewed. Major theories of gender communication, and practical approaches to communicating more effectively with persons from the other and same genders will also be examined. (1.1)

*Prerequisite:* College Reading and Writing Readiness

## Course Information and Descriptions

### **CMM 127 Intercultural Communication (3-0) 3 Hours**

This course will examine the complex relationships between communication and culture by using social, psychological, interpretive and critical perspectives. Additionally, this course will allow one to consider the role that communication has in creating, maintaining, or challenging cultural assumptions, norms, rules and power structures and will also encourage one to consider the importance of social, historical, and cultural contexts in intercultural interactions. Students of CMM127 will explore how diverse underlying cultural orientations and patterns influence communication within and between cultures and will learn to evaluate their own and other's communicative behaviors from a culturally sensitive perspective. Throughout the semester, students will build communication skills with a particular emphasis on bridging cultural barriers through in class and out of class activities. Theoretical and practical aspects of intercultural communication will be addressed with a focus on building culturally competent communication skills. (1.1)

*Prerequisite:* College Reading and Writing Readiness  
*Fulfills the CLC I/M Education Requirement.*

### **CMM 128 Interviewing Practices (3-0) 3 Hours**

Techniques and skills to improve fluency, accuracy, and persuasiveness in one-to-one communication. Covers all types of interviewing and process of dyadic communication. (1.1)

*Prerequisite:* College Reading and Writing Readiness

### **CMM 129 Argumentation and Debate (3-0) 3 Hours**

This course provides an overview of the theory and practice of argumentation and debate including burdens of proof, stock issues, evidence, reasoning, and debate strategies and procedures. Students participate in debates on fact, value, and policy issues. (1.1)

*Prerequisite:* College Reading and Writing Readiness

### **CMM 221 Applied Forensics (Variable) 1-3 Hours**

This course provides practical experience in the preparation of public speeches, oral interpretation programs, group performances, and preparation of speaking situations for public presentations in forensic/speech competition. The student may take the course up to three times but for a maximum of three credit hours. (1.1)

*May be taken four times, but any topic only once*

### **CMM 299 Special Topics in Communication (Variable) 1-3 Hours**

This course addresses the in-depth study of special topics in communication that do not have specific courses in the catalog. Course content will vary depending on the topic being studied. Topics may include campaign or presidential rhetoric, nonverbal communication, listening, or health, family or religious communication. This course is repeatable up to three times, any topic only once, for a maximum of 6 hours toward degree completion. (1.2)

*May be taken three times, but any topic only once*

## Computer Aided Design (CAD)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

### **CAD 110 CAD/CAM Concepts (2-2) 3 Hours**

This course will introduce the student to how computers are used in Computer Aided Design. The course will cover basic functions of Windows operating system, as well as computer hardware and software and how the operating system relates to the use of both. Extensive use of the internet will be used to download software and information. CAD software will be introduced including AutoCAD (for 2D drawings), Inventor (for 3D mechanical parts), and Revit (for 3D architectural models). (1.2)

*Prerequisite:* College Reading and Writing Readiness or consent of instructor  
*Course fee*

### **CAD 111 CAD Drafting Application I (3-2) 4 Hours**

This course is designed to introduce the student to the tools and techniques of the CAD-drafting profession. CAD-drafting skills are learned through intensive classroom practice using AutoCAD Computer Aided Design Software and through discussions and demonstrations using professionally prepared materials. Topics include geometric constructions, sketching, threads and fasteners, scales, multiviews, dimensioning and tolerancing, sectional views, auxiliary views, and pictorial views. (1.2)

*Course fee*  
*Typically offered summer only*

### **CAD 117 Introduction to AutoCAD (2-2) 3 Hours**

The course is designed to introduce students to the use of AutoCAD for computer-aided design and drafting. 2D drawing, modifying and dimensioning is emphasized.

*Note:* Completion of CAD 110 is recommended. (1.2)  
*Course fee*

### **CAD 170 Introduction to SolidWorks (2-2) 3 Hours**

(Formerly CAD 173) This course is designed as an introduction to the SolidWorks Computer Aided Design software. Topics will include part creation, use of features, assembly modeling, and drawing creation.

*Note:* Completion of CAD 117 or a strong working knowledge of another CAD software is recommended prior to taking this course. (1.2)  
*Course fee*

### **CAD 171 Introduction to Inventor (2-2) 3 Hours**

The course is designed as an introduction to the Inventor Computer Aided Design software. Topics will include part creation, use of features, assembly modeling and drawing management.

*Note:* Completion of CAD 117 or a strong working knowledge of another CAD software is recommended prior to taking this course. (1.2)  
*Course fee*

### **CAD 176 Introduction to Creo (2-2) 3 Hours**

This course is designed as an introduction to the Creo Computer Aided Design software. Topics will range from 3-dimensional solid modeling to detail drawing creation and assembly.

*Note:* Completion of CAD 117, equivalent industrial experience, or strong working knowledge of another CAD software is recommended prior to taking this course (1.2)  
*Course fee*

**CAD 177 Civil Drafting (2-2) 3 Hours**

This course will introduce students to software used in the preparation of civil and surveying drawings. Software studied includes AutoCAD and advanced applications such as Land Development Desktop and Civil 3D. (1.2)  
*Prerequisites:* CAD 117 or EGR 121 or ARC 121 or consent of instructor  
*Course fee*  
*Typically offered spring only*

**CAD 178 Introduction to Revit (2-2) 3 Hours**

(Formerly CAD 214) This course is designed as an introduction to the Revit Computer Aided Design software. Topics will include building 3D architectural project models with walls, window, doors, floors, roofs, stairs; creating schedules; adding views and annotation to the sheets to create construction documents.  
*Note:* Completion of ARC 121 or equivalent industrial experience recommended. (1.2)  
*Course fee*

**CAD 179 Introduction to Autodesk 3ds Max (2-2) 3 Hours**

Animation and rendering of 3 dimensional objects for architects, graphic illustrators and product designers. Software emphasized is Autodesk 3ds Max. (1.2)  
*Course fee*

**CAD 211 Mechanical Detailing with GD&T (2-2) 3 Hours**

This course will help students interested in CAD to advance their knowledge and skills of mechanical drafting operations utilizing an industrial CAD system. Emphasis is on the principles and applications of geometric dimensioning and tolerancing techniques, using the ASME 14.5-2009 Standard. (1.2)  
*Prerequisite:* CAD 170 (previously CAD 173) or CAD 171 or CAD 176  
*Course fee*  
*Typically offered spring only*

**CAD 217 AutoCAD II (2-2) 3 Hours**

Discussion and lab work are presented dealing with advanced drawing and dimensioning techniques, attributes, and individualized customization of AutoCAD menus and files. (1.2)  
*Prerequisite:* CAD 117 or EGR 121 or ARC 121  
*Course fee*  
*Typically offered spring only*

**CAD 270 SolidWorks II (2-2) 3 Hours**

(Formerly CAD 174) This course is designed as a continuation of CAD 170 Introduction to SolidWorks. It expands the topics started in CAD 170. It also covers sheet metal part creation, basic mold design, and importing files from other CAD programs. (1.2)  
*Prerequisite:* CAD 170 (previously CAD 173)  
*Course fee*  
*Typically offered fall only*

**CAD 271 Inventor II (2-2) 3 Hours**

This course is a continuation of CAD 171. It further explores the Inventor Computer Aided Design software. Topics include but are not limited to advanced part modeling, sheet metal parts, iParts, advanced assemblies, “Design Center”, border and titleblock creation, toolbar and command customization. (1.2)  
*Prerequisite:* CAD 171 (C or better)  
*Course fee*  
*Typically offered fall only*

**CAD 273 Advanced CAD Specialization (Variable) 1-3 Hours**

The course is of a project nature where the student will select and complete one or more projects throughout the semester. There will be periodic reports to the instructor in the form of a formal written progress report. Specific prerequisite will be determined by the instructor. (1.2)  
*Course fee*

**CAD 276 Creo II (2-2) 3 Hours**

This course builds upon CAD176 and further explores the Creo Computer Aided Design software. Topics include but are not limited to advanced part modeling, advanced assemblies, and an introduction to Creo Simulate (formerly Mechanica) as a design tool. (1.2)  
*Prerequisite:* CAD 176  
*Course fee*  
*Typically offered spring only*

**CAD 278 Revit II (2-2) 3 Hours**

This course is designed as a continuation of CAD178, Introduction to Revit. It expands the topics started in CAD178. It also covers more advanced concepts such as Conceptual Massing, Family Creation, Site and Structural Tools, Design Options, Phasing and Rendering. (1.2)  
*Prerequisite:* CAD 178 (previously CAD 214) with a grade of C or better  
*Typically offered fall only*

**CAD 279 Design Visualization Using 3ds Max Design (2-2) 3 Hours**

This course is designed for students who are interested in using Autodesk 3ds Max Design software to enhance their 3D designs. Students will use the software to create 3D illustrations and rendering of products, interiors/exterior of buildings to produce professional presentation quality drawings. The topics include advanced modeling and modifiers, advanced materials, animation, and the use of mental ray rendering software.  
*Note:* Completion of CAD179, or familiarity with Autodesk 3ds Max Design, is recommended prior to taking this course.  
*Note:* This course is cross listed with ARC 216. (1.2)  
*Course fee*  
*Typically offered spring only*

## Computer Information Technology (CIT)

Business and Social Sciences Division,  
 Room T302, (847) 543-2047

**CIT 111 Comprehensive Spreadsheets (3-0) 3 Hours**

Covers the advanced features of spreadsheet use and design. File building techniques, the creation of high-quality graphics, database features including query and table handling are also covered. Use of financial, date, and time functions will be included. Use of macros will cover automating operations, building and customizing spreadsheets with interactive macros, and improving macro performance including Visual Basic macros. (1.2)  
*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness  
*Course fee*

## Course Information and Descriptions

### **CIT 112 Comprehensive Database (3-0) 3 Hours**

This course introduces the concepts and features of a PC-based relational database using Microsoft™ Access. Students will learn to create and modify tables, customized queries, forms and reports. Other topics include: embedding objects, creating macros, using Visual Basic for Applications (VBA), and database administrative tasks. Students will need to have basic knowledge of Windows and familiarity of basic application software functions to be successful in this course. (1.2)

*Prerequisite:* College Reading and Writing Readiness  
*Course fee*

### **CIT 113 Introduction to SQL (3-0) 3 Hours**

This course will cover the essential concepts of relational databases using SQL (Structured Query Language). Students will develop skills necessary to effectively interact with an SQL database. Emphasis is on the SQL commands required for designing, accessing and manipulating databases. Students will gain practical hands-on experience using lab exercises and lab experiences. (1.2)

*Prerequisite:* CIT 112 (Previously CIS 230) - AND - a CIT programming course or a passing score on the Programming Placement Test

*Course fee*

*Typically offered fall and spring only*

### **CIT 114 Introduction to Networking for Programmers (3-0) 3 Hours**

This course introduces students to the fundamentals of networking and the Internet, and how they apply to application development. Students will learn about networking hardware and software, especially the standard protocols used to communicate data over a network. Students will also learn about the services available on the Internet and how they can be used in application development. Students will examine how to build secure applications and protect data in a network environment. (1.2)

*Prerequisite:* CIT 120 (Previously CIS 120) or passing score on the Introduction to Computers Placement Test

*Course fee*

*Typically not offered every term*

### **CIT 119 Introduction to Office Software (2-2) 3 Hours**

This course is a hands-on course for students wanting to learn the basics of productivity software including: word processing, spreadsheets, databases, and presentation software. Basic operating system tasks will also be presented. Software used for this class includes a current version of Windows, Word, Excel, Access, and PowerPoint.

*Note:* This course is not intended for CIT majors and does not apply towards any CIT degree or certificate. (1.2)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 or ELI 110 AND Basic Algebra Readiness or concurrent enrollment in MTH 114

*Course fee*

### **CIT 120 Introduction to Computers (3-0) 3 Hours**

In this course students will learn about the significant role of computers in business and society. Students will be introduced to concepts addressing computer hardware and software, networking, multimedia, telecommunications, careers in the Information Technology field, and current computer-related issues. This course

has a computer lab component where students get hands-on experience using a current integrated software package (Microsoft™ Office®) to better understand how computers are used in a business environment. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

**IAI: BUS 902**

### **CIT 130 Operating Systems for A+ Certificate (3-0) 3 Hours**

This course covers the essential elements of Operating Systems. Specific features along with general concepts of the selected operating system will be addressed. System optimization, memory management, identity management, installation, and software/hardware management will be an integral part of this course. This course covers the objectives for the latest A+ Operating System technologies test. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

*Typically offered fall and spring only*

### **CIT 131 Windows Operating System (3-0) 3 Hours**

This course covers the essential elements of the latest Client Windows Operating System. Specific features along with general concepts of the Windows operating system will be addressed. System optimization, memory management, installation, and software/hardware management will be an integral part of this course. The course prepares a student for Microsoft Certified Professional (MCP) test. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

### **CIT 132 Linux Operating System (3-0) 3 Hours**

This course introduces students to the Linux operating system and the skills they need to effectively use and administer the Linux operating system. The course includes Linux installation and configuration, shell commands and scripts, Linux file system and processes management, and basic system administration tasks. By the end of the course, students will be familiar with the Linux command-line environment, utilities, applications, as well as the graphical X Window environment. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

### **CIT 133 Network Automation (3-0) 3 Hours**

This course introduces students to basic shell scripting concepts used in automating administrative tasks in the Windows and Linux operating systems. Students will learn how to run commands in the command-line interface, write and debug scripts, handle errors, employ script parameters, and establish script security. (1.2)

*Prerequisite:* CIT 130 or CIT 131

*Corequisite:* CIT 132

*Course fee*

**CIT 134 Introduction to Programming Concepts (3-0) 3 Hours**

This course introduces students to programming logic constructs used in structured programming. Problem solving and structure types (sequence, decision, and repetition) will be presented. Other programming concepts presented in this course include: numeric and string variables, data input and output techniques, functions and procedures, arrays, and processing sequential files.

*Note:* This course is a CIT core prerequisite and is required before taking a second level programming course. (1.2)

*Corequisite:* CIT 120 or passing score on the Introduction to Computers Placement Test

*Course fee*

**CIT 137 Object Oriented Programming using Java (3-0) 3 Hours**

Encapsulation, inheritance and polymorphism, as implemented in the unique Java way, will be an important basis for study. Students will write Java programs for business applications and applets for the Internet. There will be special emphasis on C and C++ differences such as multithreading, graphics, multimedia, Java classes, and the larger Java environment. Basic GUI components from the Abstract Windowing Toolkit (AWT) and Java Foundation classes (Swing) will be covered. (1.2)

*Prerequisite:* CIT 134 or equivalent or a passing score on the Programming Placement Test

*Course fee*

*Typically offered spring only*

**CIT 138 Introduction to C# Programming (3-0) 3 Hours**

This course introduces students to the C# programming language. Students will create console-based and Graphical User Interfaces (GUI) applications. For the GUI applications, the student will build window-based and web-based forms, adding controls and setting properties for these controls. Design ideas for menus and the use of graphics, color, and layout will be explored. Classes and objects are introduced along with encapsulation, implementation and interface inheritance, and polymorphism as implemented in C#. The classes and objects of the .NET framework will be integrated into the building of the students' C# applications. A number of simple application examples will be used to gain debugging experience in addition to developing original applications. (1.2)

*Prerequisite:* CIT 134 or equivalent or a passing score on the Programming Placement Test

*Course fee*

*Typically offered fall and spring only*

**CIT 139 Cisco: Introduction to Networks (2-2) 3 Hours**

(Formerly CNA 111) This course covers the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of Internet Protocol (IP) addressing and the fundamentals of Ethernet concepts, media, and basic network operations are introduced. Students will build simple local area networks, perform basic configurations for routers and switches, and implement IP addressing schemes.

*Recommended:* CIT 120 (1.2)

*Course fee*

**CIT 141 Programming in C++ (4-0) 4 Hours**

Extends the knowledge of programming by demonstrating how C++ implements the basic constructs of Object Oriented Programming (OOP). Encapsulation, inheritance and polymorphism, the three fundamental criteria for OOP, will be examined closely. Students

will implement C++ programs organized as a cooperative collection of objects, each of which represents an instance of some class, and whose classes are all members of a hierarchy of classes united via different kinds of class relationships. In addition, exception handling and object persistence will be deployed in these classes. (1.1)

*Prerequisite:* CIT 134 or equivalent or a passing score on the Programming Placement Test

*Course fee*

**IAI: CS 911**

**CIT 151 Windows Server Administration (2-2) 3 Hours**

This course covers the implementation, management, maintenance, and provisioning services essential to the administration of Windows Server across multiple network infrastructure platforms. Major topics include installing and configuring servers, configuring server roles and features, administering print, storage and network services, configuring and managing server and group policies, implementing business continuity and disaster recovery, including managing high availability server configurations. Students will develop skills to qualify for a position as a network systems administrator or a computer support specialist. (1.2)

*Prerequisite:* CIT 131 AND CIT 139 or CIT 150 (all C or better)

*Corequisite:* CIT 133

*Course fee*

*Typically offered spring only*

**CIT 152 Network Security Fundamentals (3-0) 3 Hours**

This course is designed for administrators who are responsible for the day-to-day administration and security of Microsoft Windows. Students should have general knowledge of networking concepts and Windows OS to be successful in this course. This course will prepare the student for Security+ certification. (1.2)

*Prerequisite:* CIT 130 or CIT 131 AND CIT 139 or CIT 150 (all C or better)

*Course fee*

*Typically offered fall and spring only*

**CIT 155 Introduction to Computer Forensics (3-0) 3 Hours**

This course is designed to introduce students to crime scene investigation and processing, forensic science and computer forensics topics. Areas addressed in this course include: crime scene procedures and documentation, collecting and preserving evidence, computer forensic science, locating digital evidence, and basic legal principles related to computer forensics. Emphasis will be placed on the role of computer forensics with the other forensic sciences. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Typically offered fall and spring only*

**CIT 156 Digital Evidence Recovery (2-2) 3 Hours**

This course is designed to provide students with the knowledge and skills to master first-level Computer Forensics topics. Areas addressed in this course include hardware, software, ethics, examination standards, preparing and verifying forensically sterile examination media, note taking, and report writing. Special emphasis will be given to the Windows and Linux operating systems as they pertain to Computer Forensics investigations. Practical exercises on preparing and verifying forensically sterile examination media will be included as part of the class curriculum. (1.2)

*Prerequisites:* CIT 130 or CIT 131 (both C or better)

*Course fee*

*Typically not offered every term*

## Course Information and Descriptions

### **CIT 157 Enterprise Desktop Support (2-2) 3 Hours**

This course concentrates on help desk issues for the current Windows operating system desktop and examines installation, configuration, networking, wireless, and security problems and their resolution. The course also addresses performance issues for both software and hardware, details how to improve the overall system's performance, covers communication, teamwork, and listening abilities, and prepares students for both the Microsoft Certified IT Professional Enterprise Desktop Support Technician and Enterprise Desktop Administrator certification tests. (1.2)

*Corequisite:* CIT 130

*Course fee*

*Typically offered fall and spring only*

### **CIT 159 Cisco: Routing and Switching (2-2) 3 Hours**

(Formerly CNA 112) This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with Routing Information Protocol (RIPv1), RIPv2, single-area and multi-area Open Shortest Path First (OSPF) protocol, Virtual Local Area Networks (VLANs), and Inter-VLAN routing in both IPv4 and IPv6 networks. (1.2)

*Prerequisite:* CIT 139

*Recommended:* CIT 131

*Course fee*

### **CIT 170 Creating Web Pages (3-0) 3 Hours**

In this course students are introduced to technical aspects of Web page creation. Topics presented in this course include: beginning through advanced concepts of programming in Web markup languages HTML and XHTML; formatting Web pages using Cascading Style Sheets (CSS); Web page interactivity using the Web browser scripting language JavaScript; adding graphics, sound, video, and Java applets into Web pages; and how data is exchanged on the Web using XML. Students will also gain the skills required to publish and maintain Web sites. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

### **CIT 171 Web Page Scripting (3-0) 3 Hours**

This course is designed as an introduction to creating dynamic interactive Web pages and sites using client-side scripting, code embedded directly into a Web page. Topics presented in this course include: beginning through advanced concepts of Web page client-side scripting, browser object model (BOM), validating and submitting user input, passing user input data between Web pages during navigation, cookies, security issues, animation, document object model (DOM), dynamic HTML (DHTML), and updating Web pages with AJAX. Debugging techniques will be covered extensively. Students will also gain the skills required to publish and maintain Web sites. (1.2)

*Prerequisite:* CIT 170 or DMD 116

*Course fee*

*Typically offered fall only*

### **CIT 173 PHP Programming (3-0) 3 Hours**

This course is designed as an introduction to PHP, an open source, interpretive, cross-platform, HTML embedded server-side scripting language used to create dynamic Web sites. The main objective of this course is to provide students with the knowledge and skills necessary to design and develop dynamic database-driven Web pages using PHP. (1.2)

*Prerequisite:* CIT 170 or DMD 116

*Course fee*

*Typically offered spring only*

### **CIT 174 Adobe Dreamweaver (3-0) 3 Hours**

This course introduces students to the fundamentals of Adobe Dreamweaver, the industry's leading application for developing websites. Students will gain the knowledge and hands-on skills they need to plan, build, and manage commercial websites using Dreamweaver's intuitive visual interface. Topics covered in this course include Cascading Style Sheets (CSS) templates, images, links, tables, forms, frameworks, media objects, publishing, mobile websites, and accessibility. Best practices and current web standards are emphasized throughout the course. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Typically offered spring only*

### **CIT 175 Game Development & Design Strategies (3-0) 3 Hours**

This course will examine the cultural and social aspects of games from early man to current computer games, and study games from the perspective of the narrative, mathematical, statistical and developmental points of view. Students will examine the key principles of the game creation process and apply them to the creation of an original game design document.

In this course, students will design key components for an original game including character designs, back story, obstacles, strategies, rules, scoring systems, and level designs. In class reviews, discussions, and demonstrations will assist in refining and focusing the game design document. A finalized game design document will be compiled from the various weekly written assignments. Students will present the design in a pitch style setting and defend their design choices. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Typically not offered every term*

### **CIT 176 2D Game Development (3-0) 3 Hours**

This course provides students with skills to create their own computer games utilizing game development tools. Through hands-on work students learn how to use a typical game engine and its scripts to design, implement, and test interactive computer games. This course does not require prior computer programming skills. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

*Typically not offered every term*

### **CIT 177 3D Game Development (3-0) 3 Hours**

This course provides students with skills to develop computer games utilizing 3D game development tools. Through hands-on work students apply 3D game design concepts and principles to complete deliverables for a 3D game conversion. Students will also learn and practice the process of game development while working on their projects. This course does not require prior computer programming skills. (1.2)

*Prerequisite:* CIT 176

*Course fee*

*Typically not offered every term*

**CIT 210 Programming for Office Applications (3-0) 3 Hours**

This course is designed to provide students with the skills to automate and extend Office applications by learning macros, Visual Basic for Applications (VBA) programming, and XML data interfacing. This course will cover manipulating the underlying objects of the different office applications. It will explain how event handling within VBA can be used to automate the handling of office documents. It will show how to use XML to transfer information between applications on both the local and remote computers flexibly.

*Note:* Familiarity with MS Word and MS Access is recommended. (1.2)

*Prerequisite:* CIT 111

*Course fee*

*Typically not offered every term*

**CIT 215 Microsoft .NET Web Programming (4-0) 4 Hours**

This course provides students with experience in creating, configuring, and deploying web applications using Visual Basic or Visual C# and the Microsoft .NET Framework. The course includes building web applications and web services employing custom controls, authentication, authorization, and personalization services. This course provides the student experience with integrating data with web applications by using several different database management systems such as SQL Server, Oracle, and Access. (1.2)

*Prerequisite:* CIT 138 (C or better)

*Course fee*

*Typically offered fall only*

**CIT 216 Microsoft .NET Framework Programming (4-0) 4 Hours**

This course provides students with in-depth coverage of the Microsoft .NET Framework components using Visual C#. Topics include system types and collections, services, threading, application configuration, input/output, security, interoperability, globalization, drawing and text manipulation. This course also covers Microsoft .NET Presentation Foundation, Windows Communication Foundation, and Windows Workflow Foundation application development. (1.2)

*Prerequisite:* CIT 138

*Course fee*

*Typically offered spring only*

**CIT 218 Cisco: Scaling Networks (2-2) 3 Hours**

(Formerly CNA 113) This course describes the architecture, components, and operations of routers and switches in a larger and more complex network. Students learn how to configure routers and switches for advanced functionality and resolve common issues with Open Shortest Path First (OSPF) protocol, Enhanced Interior Gateway Routing Protocol (EIGRP), Spanning-Tree Protocol (STP), and VLAN Trunking Protocol (VTP) in both IPv4 and IPv6 networks. In addition, students develop the knowledge and skills needed to implement Dynamic Host Configuration Protocol (DHCP) and Domain Name System (DNS) operations in a network. (1.2)

*Prerequisite:* CIT 159 or Department Consent

*Course fee*

*Typically not offered every term*

**CIT 219 Cisco: Connecting WAN Networks (2-2) 3 Hours**

(Formerly CNA 114) This course discusses the wide area networks (WAN) technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common

issues with data link protocols. In addition, students develop the knowledge and skills needed to implement Internet Protocol Security (IPSec) and Virtual Private Network (VPN) operations in a complex network. (1.2)

*Prerequisite:* CIT 218

*Course fee*

*Typically not offered every term*

**CIT 230 Linux System Administration (3-0) 3 Hours**

This course introduces students to the Linux administration, networking, and security. The course covers administration techniques, networking and network service configurations, and security measures on the user, file, and network. By the end of the course, students will be able to perform common administration tasks, configure and maintain secure networking and common network services. (1.2)

*Prerequisites:* CIT 132

*Corequisite:* CIT 133

*Course fee*

*Typically not offered every term*

**CIT 239 Systems Analysis (3-0) 3 Hours**

This course will examine different software development methodologies for developing and implementing information systems. It discusses the use of Computer Aided Software Engineering (CASE) tools used to increase developers' productivity. The student will capture the requirements, analyze the needs of these requirements and design a solution for satisfying the requirements for a project of their choice. The system concentrates on object-oriented techniques for representing the solution and uses the Unified Modeling Language (UML) to describe the requirements, analysis and design models for the student's project. The design phase will examine the impact of user interfaces, database designs, and program and transaction control. Concepts of the systems development life cycle are presented along with support activities such as project management, configuration management and risk management, conversion and final evaluation. Business needs and the human aspects of EDP are stressed. (1.2)

*Prerequisite:* CIT 135 or CIT 137 or CIT 138 or CIT 141 or higher level object oriented programming language

*Course fee*

*Typically offered fall only*

**CIT 241 Advanced C++ (3-0) 3 Hours**

Extends the students' knowledge of C++ through the study of the application of data structures and an introduction to frameworks. The student will learn the basic concepts and the application of the normal data structures of vectors, linked lists, stacks, queues, and trees. These concepts will be examined through discussion on the implementation of these data structures in The Standard Template Library components. These studies will be based on C++ templates and C++ exception handling. The course will examine searching and sorting algorithms especially in relation to the data structures studied above. The course will also study the concepts and use of frameworks emphasizing the C++ Stream I/O classes and their relationships. With this knowledge, students will be able to apply appropriate data structures to solve programming problems. The student will understand the use of frameworks as a basis to solving a class of problems. SOFTWARE: MS-Windows and a recent C++ compiler with a supporting STL. (1.1)

*Prerequisite:* CIT 141

*Course fee*

*Typically offered fall only*

**IAI: CS 912**

## Course Information and Descriptions

### **CIT 252 Hardening the Infrastructure (3-0) 3 Hours**

This course provides students with hands-on experience in hardening a variety of networking systems. Topics include Linux and Windows operating systems, routers, wireless networks, auditing and contingency planning. This is one of the courses in a two-course series to prepare students for the industry-recognized Security Certified Network Professional Certification (SCNP). (1.2)

*Prerequisites:* CIT 151 or CIT 230 (C or better), and CIT 152 (C or better) or instructor consent.

*Course fee*

*Typically offered fall only*

### **CIT 253 Network Defense and Countermeasures (3-0) 3 Hours**

In this capstone course students will use knowledge from previous courses to design a secure network infrastructure as a member of a project team. Topics introduced in this course will include managing and installing firewalls, implementing IPsec and VPNs, designing intrusion detection systems, routing fundamentals including the use of ACL's, and the fundamentals of wireless network infrastructures. This capstone course provides students with the practical skills necessary to enhance their network security background and prepare for Professional Security Certifications. (1.2)

*Prerequisite:* CIT 252 (C or better) or Consent of Instructor

*Course fee*

*Typically offered spring only*

### **CIT 254 Windows Directory Services (3-0) 3 Hours**

This course covers the essential elements in implementing and administering Windows Active Directory security in medium to very large computing environments. This course uses the current Windows Server product and students learn how to deploy, upgrade, configure, and maintain Active Directory services. This course prepares the student for one of the exams that leads to Server Administration Certification. (1.2)

*Prerequisite:* CIT 151 (C or better) or Consent of Instructor

*Course fee*

*Typically offered spring only*

### **CIT 255 Server Virtualization Technologies (3-0) 3 Hours**

This course covers the fundamentals of enterprise class server virtualization, which forms the basis for private and public cloud technologies, as well as drastically reduces the data center footprint. Students will learn to install, configure and maintain a virtualization environment, including both server virtualization (ESX / Hyper-V) and virtual desktop infrastructure (VDI). Best practices will be covered for the leading virtualization vendors. (1.2)

*Prerequisite:* CIT 151 or CIT 230 (either C or better) or Consent of Instructor

*Course fee*

*Typically offered fall only*

### **CIT 256 Windows Forensic Analysis (2-2) 3 Hours**

This course provides students with the knowledge and skills needed to master Windows forensic analysis topics using industry standard forensic tools. Areas addressed in this course include the New Technology File System (NTFS), steganography, case management, data acquisition and verification, bookmarking, search methodologies, signature and hash analysis, recovering data in unallocated space, examining Windows artifacts, parsing compound files, decoding encrypted data, and case reporting. (1.2)

*Prerequisite:* CIT 130 or CIT 131 (either C or better)

*Course fee*

*Typically offered fall only*

### **CIT 258 Network Forensics (3-2) 4 Hours**

This course expands the Computer Forensics curriculum by presenting the science of forensic analysis of data commonly transmitted via modern computer networks. It extends the forensic topics presented in the computer evidence recovery courses (CIT156 and CIT256) by introducing and detailing the impact of modern networking to computer investigations. In addition to re-enforcing the knowledge of "passive" evidence collection as taught in the course's prerequisites, the course aims to introduce forensic topics related to "active" evidence collection techniques including network data tapping and safely examining malicious software. The student who satisfactorily completes this course will be ready to participate in formal evidence collection and analysis for a non-law enforcement organization. Further studies in law enforcement may be required for the student to leverage these skills as part of a criminal investigation. (1.2)

*Prerequisite:* CIT 150 or CIT 139 AND CIT 256

*Course fee*

*Typically offered spring only*

### **CIT 259 Topics in Computer Forensics (Variable) 1-3 Hours**

This course is designed to meet the needs of students for specialized instruction in current Computer Forensics topics. Topics and course credit hours will be identified by individual section. This course is repeatable up to three times, any topic only once, for a maximum of 6 hours towards degree completion. (1.2)

*Prerequisite:* To be determined relative to topic

*Course fee*

*May be taken four times for credit toward degree*

*Typically not offered every term*

### **CIT 270 Server-Side Programming (3-0) 3 Hours**

This course is designed to emphasize server-side programming for the Internet. Topics include the fundamentals of server-side programming using server-side objects to create dynamic web pages and build an e-commerce site with shopping cart and server-side database connections. Students will gain an overall understanding of building a dynamic business based website for today's corporations and small businesses. A major project will be required for students to program their own dynamic website including a fully functional shopping cart. (1.2)

*Prerequisites:* CIT 171 and CIT 113

*Course fee*

*Typically offered spring only*

### **CIT 271 Markup Language Programming (3-0) 3 Hours**

This course is designed to present the fundamentals of Extended Markup Language (XML). The key capabilities, limitations, and differences between SGML, HTML, XHTML, and XML will be covered. Incorporation of XML technologies and how to use them for data exchange applications on the web, e-commerce, and non-web applications will be emphasized. (1.2)

*Prerequisites:* CIT 170 and CIT 112

*Course fee*

*Typically offered fall only*

### **CIT 272 Enterprise Messaging Administration (3-0) 3 Hours**

This course provides students with the knowledge and skills needed to configure and manage an enterprise messaging environment. It also provides guidelines, best practices, and considerations for optimizing mail server deployment. Major topics include managing users, mailboxes, servers, and security as well as monitoring and troubleshooting the mail server. (1.2)

*Prerequisite:* CIT 151 (C or better) or Consent of Instructor

*Course fee*

*Typically offered spring only*

**CIT 275 Mathematics for Game Development (3-0) 3 Hours**

This course provides students with fundamental math and physics concepts, principles, and formulas that are crucial to developing successful games. Topics such as trigonometry snippets, vector and matrix operations, transformations, momentum and collision, and 1D/2D/3D motion show students step by step how to use math and physics to improve their levels of game development. (1.2)

*Prerequisite:* CIT 177 and MTH 122

*Recommended:* CIT 141 or other programming class

*Course fee*

*Typically not offered every term*

**CIT 276 Game Development Projects (3-0) 3 Hours**

This course provides students with special programming skills on a major 3D game engine. Students build their profiles in this game development capstone course with major projects utilizing not only game engine functionalities but also associated engine scripts and coding. The primary outcome of this capstone course is for the student to create a video game demo to show potential employers. (1.2)

*Prerequisite:* CIT 177 and CIT 241

*Course fee*

*Typically not offered every term*

**CIT 277 MS .NET Software Development Capstone (3-0) 3 Hours**

This course provides hands-on experience analyzing, designing, developing, and implementing a .NET software project which will include both window-based and web-based components spread across multiple nodes. The course projects will also cover quality assurance, project management basics, and documentation. The course uses case studies to demonstrate the various components of .NET Framework development. Students will carry a project through all phases from feasibility study to implementation. (1.2)

*Corequisite:* CIT 216 and CIT 239

*Course fee*

*Typically offered spring only*

**CIT 295 CIT Internship (1-10) 3 Hours**

This internship course provides students an opportunity to apply skills gained from previously taken CIT and supporting courses in a real-time work environment. Students will obtain direct industry experience while exploring various aspects of employment within the field of professional computing and information technology. They will gain practical work experience under the supervision of an Information Technology professional in day-to-day, on-site technical work. Student must complete 150 hours of work at the internship site, as well as attend a one-hour/week internship seminar. (1.2)

*Prerequisite:* Any 200 level CIT course (3 credit hours or more) with C or better and Consent of Instructor

*Typically offered fall and spring only*

**CIT 299 Selected Topics in Computer Information Technology (Variable) 1-4 Hours**

A course designed to meet the needs of students for specialized instruction in current computer information technology topics.

*Note:* Topics will be identified for each section of the course. (1.2)

*Course fee*

*May be taken four times, but any topic only once*

## Computerized Numerical Control (CNC)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

**CNC 110 CNC Operations I (2-2) 3 Hours**

Set-up and operation of CNC FANUC and HAAS controlled industrial vertical milling machines and turning centers.

*Note:* Machine shop experience or MTT 111 or MTT 112 is recommended. (1.2)

*Course fee*

*Typically offered fall and spring only*

**CNC 111 Geometric Dimensioning and Tolerancing (1-0) 1 Hour**

This course will assist Machine Tool students to advance their knowledge and skills on the principles and applications of Geometric Dimensioning and Tolerancing techniques using the ASME Y14.5-2009 standard. (1.2)

*Prerequisite:* Basic Algebra Readiness

*Typically offered summer only*

**CNC 115 CNC Programming I (2-2) 3 Hours**

Provides students with the basic principles and practices of numerical control machining. Manual parts programming will be performed for CNC lathes and milling machines.

*Note:* It is recommended that either CNC 110, MTT 112 or machine tool industrial experience should precede this course. Shop math skills or MTH 115 are also recommended. (1.2)

*Course fee*

*Typically offered fall and spring only*

**CNC 210 CNC Operations II (2-2) 3 Hours**

Advanced set-ups, operations, and features of FANUC controlled CNC machine tools are covered including the use of a vertical machining center, and turning center and Wire EDM. (1.2)

*Prerequisite:* CNC 110

*Course fee*

*Typically offered summer only*

**CNC 215 Advanced Mill Programming (2-2) 3 Hours**

A continuation of CNC 115 including advanced manual part programming on a FANUC and HAAS controlled CNC mill and 4 weeks of CNC Wire EDM. Sub programs, macros, threadmilling rotation and other transformations are also included.

*Note:* Industrial shop math or MTH 115 is strongly recommended. (1.2)

*Prerequisite:* CNC 115

*Course fee*

*Typically offered spring only*

**CNC 216 Advanced Lathe Programming (2-2) 3 Hours**

Designed as a continuation of Computerized Numerical Control Lathe manual programming. The nature of the material will range from lathe G&M codes to advanced level conversational programming, sub programs, macro and other advanced techniques.

*Note:* Industrial shop math or MTH 115 is strongly recommended. (1.2)

*Prerequisite:* CNC 115

*Course fee*

*Typically offered fall only*

## Course Information and Descriptions

### **CNC 217 Introduction to Wire EDM Machining (2-2) 3 Hours**

Designed as an introduction to the concepts of Operation and Programming of a FANUC CNC Wire Electrical Discharge Machine. The nature of the material will range from basic operation to G&M codes for programming.

*Note:* Students with Machine Shop or CNC Programming experience may contact the department chair if interested in alternative methods of meeting the prerequisite. (1.2)

*Prerequisites:* CNC 110 and CNC 115

*Course fee*

*Typically offered spring only*

### **CNC 218 Introduction to Master CAM (2-2) 3 Hours**

Computer Aided Design and Manufacturing processes are discussed and implemented utilizing Master Cam software. Parts will initially be drawn in the CAD environment. The NC instructions necessary to drive a CNC machine tool to manufacture these parts will then be generated in the CAM environment. (1.2)

*Prerequisites:* CNC 115 or MTT 112 -AND - CAD 117

*Course fee*

*Typically offered fall only*

### **CNC 219 CNC Specialization (1-6) 4 Hours**

An advanced CNC course in which the student chooses a topic of specialization. Topics may include areas such as programming 4 and 5 axis machines, NC tooling, conversational programming, robotics and CNC, digitizing, etc. Course work may be completed at an arranged industrial site.

*Note:* Manual Part Programming experience is strongly recommended. (1.2)

*Prerequisites:* CNC 215 or CNC 216 and MTH 117

*Course fee*

### **CNC 230 Master CAM II (2-3) 3 Hours**

Computer Aided Design and manufacturing processes are discussed and implemented utilizing Master Cam 3D software for the Mill, Lathe and Wire EDM machines. Parts will initially be drawn or imported from a CAD environment. The NC instructions necessary to drive a CNC machine tool to manufacture these parts will then be generated in the CAM environment. This is not a course to be taken without previous Mastercam, CNC, and CAD experience. (1.2)

*Prerequisite:* CNC 218 or Instructor Consent

*Typically offered spring only*

### **CNC 250 Advanced Manufacturing (2-2) 3 Hours**

This capstone course will apply the knowledge and skills used in Computer Aided Design and manufacturing processes. The course will utilize Mastercam software, a CNC machining center and the student's choice in CAD software. Students will learn the knowledge and skills necessary to import files from a CAD environment into Mastercam to create tool paths and generate a "G" code program, download the program to the CNC machine tool and setup the CNC machine to manufacture the part. (1.2)

*Prerequisite:* CNC 110 and CNC 218 (both with C or better); AND CAD 117 or CAD 170 (previously CAD 173) or CAD 171 or CAD 176 (C or better); OR Consent of Instructor

### **CNC 299 Special Topics: CNC Machining Technology (Variable) 1-4 Hours**

This course provides students with additional information about specialized areas in CNC machining technology. Topics will be identified for each section of the course. This course is repeatable up to two times, any topic only once, for a maximum of 6 hours towards degree completion. (1.2)

*Prerequisite:* To be determined relative to topic  
*May be taken twice for credit toward degree*

## Construction Management Technology (CMT)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

### **CMT 110 Introduction to the Built Environment (1-0) 1 Hour**

This course provides an introduction to the fields of architecture, construction contracting, and civil technology, including surveying. Case studies and guest speakers are used to expose students to various professions and careers in the field. The course also provides students with resources for academic success. (1.2)

### **CMT 111 Construction Layout (2-3) 3 Hours**

Theory, principles and techniques of construction layout. Includes field procedures in fundamental surveying as well as site, foundation and frame layout.

*Note:* MTH 117 or equivalent is highly recommended. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

*Typically offered summer only*

### **CMT 112 Construction Blueprint Reading (3-0) 3 Hours**

This course provides an overview of construction methods with an emphasis on the development of skills in reading, interpreting, and gathering information from residential and commercial working drawings.

*Note:* Students enrolled in the CMT program should take this course in their first semester of study. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

**CMT 113 Construction Materials (3-0) 3 Hours**

This course provides an overview and analysis of the properties, application, and testing methods of conventional construction materials. Emphasis is placed on the structural materials: wood, concrete, masonry and steel. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

*Typically offered fall only*

**CMT 115 Carpentry I (2-2) 3 Hours**

This course covers the essential details of frame dwelling construction, such as footings, girders, floor joists, floor openings, subflooring, balloon and platform types of framing, and rough framing of window and door openings are covered. The proper and safe usage of power and hand tools will also be covered. (1.2)

*Prerequisite:* Basic Algebra Readiness

*Course fee*

**CMT 116 Carpentry II (2-2) 3 Hours**

This course covers roof framing and interior and exterior trim. Related work includes instruction in the building of cornices; applying exterior wall coverings; the construction of door and window frames; the application of baseboards, casings, and jambs; hanging and fitting doors; and the installation of hardware. (1.2)

*Prerequisite:* CMT 115

*Course fee*

**CMT 117 Construction Methods (3-0) 3 Hours**

This course provides an overview and analysis of conventional construction methods with a focus on concrete, soils, steel, masonry, wood, and overall construction safety. The application of building materials in various construction systems is emphasized, including basic design of temporary structures such as formwork. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

*Typically offered spring only*

**CMT 118 Mechanical and Electrical Equipment (3-0) 3 Hours**

This course reviews the equipment and materials used in the electrical, mechanical, plumbing, and environmental systems of buildings. Students perform basic design calculations. (1.2)

*Prerequisite:* College Reading and Writing Readiness and Basic Algebra Readiness

*Recommended:* MTH 117 (C or better)

*Typically offered spring only*

**CMT 119 Specifications and Building Codes (3-0) 3 Hours**

This course reviews construction specifications and how they relate to national, state, and local building codes. Topics related to job safety and Occupational, Safety, and Health Administration (OSHA) regulations will also be discussed. (1.2)

*Prerequisite:* College Reading and Writing Readiness and Basic Algebra Readiness

*Recommended:* ENG 120 as a co-requisite; completion of CMT 112 or equivalent experience is highly recommended prior to taking this course.

*Typically offered spring only*

**CMT 211 Job Scheduling and Control (3-0) 3 Hours**

This course provides the student with fundamental knowledge and skill in job planning and scheduling. Students will be involved in all phases of planning and scheduling from the simple process of listing

and sequencing to the development of the more complicated critical path network. (1.2)

*Prerequisite:* College Reading and Writing Readiness and Basic Algebra Readiness

*Recommended:* At least 30 hours completed in CMT curriculum and completion of CMT 112 and 114 (both C or better) OR equivalent construction experience.

*Course fee*

*Typically offered spring only*

**CMT 212 Principles of Heavy Construction (3-0) 3 Hours**

Various principles and practices employed in heavy construction. Equipment and materials necessary for a particular construction technique are emphasized. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Typically offered fall only*

**CMT 213 Construction Law and Documents (3-0) 3 Hours**

This course examines the legal aspects of construction law and contract documents. State and federal construction related documents are also discussed. (1.2)

*Prerequisite:* College Reading and Writing Readiness and Basic Algebra Readiness

*Recommended:* CMT 112 or equivalent construction experience as well as completion of 30 hours or more in the CMT curriculum

*Typically offered fall only*

**CMT 214 Construction Estimating (3-0) 3 Hours**

This course examines the theory, principles and techniques of construction estimating, including take-offs. The analysis of labor, overhead and profit is also introduced. (1.2)

*Prerequisite:* College Reading and Writing Readiness and Basic Algebra Readiness

*Recommended:* At least 30 hours completed in CMT curriculum and completion of CMT 114 C or better OR equivalent skills using MS Excel

*Course fee*

*Typically offered fall only*

**CMT 215 Construction Management (3-0) 3 Hours**

Students use basic construction management tools in a practical project management setting. The importance of positive relationships between office and field activities is stressed. Students execute a simulated project from start to finish.

*Note:* Degree-seeking students should take this course at the end of their course of study. (1.2)

*Prerequisite:* CMT 113, CMT 114, and CMT 117 (all C or better), College Reading and Writing Readiness and Basic Algebra Readiness

*Recommended:* At least 30 hours completed in CMT curriculum and CMT 211 (C or better) OR equivalent construction experience

*Typically offered spring only*

**CMT 299 Special Topics in Construction Management Technology (Variable) 1-3 Hours**

This course is expected to serve students in the CMT and CIV programs and members of the Lake County Construction community. The course is proposed to provide an opportunity to offer courses on special topics that are not part of the regular curriculum. These topics may be advanced topics that will not be repeated, or an offering made on a trial basis that may be added to the A.A.S. or certificate curriculum. (1.2)

*May be taken four times for credit toward degree*

## Criminal Justice (CRJ)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### **CRJ 118 Evidence Technology (2-2) 3 Hours**

This course is an introduction to the scientific methods involved in the recognition, collection, and preservation of physical evidence at crime scenes. The value of physical evidence will be demonstrated. Problems and procedures in handling evidence are examined. The use of scientific methods, techniques, and instrumentation will be explored. (1.2)

*Prerequisite:* CRJ 219

### **CRJ 119 Principles of Direct Supervision (3-0) 3 Hours**

This course is designed to provide the student with the knowledge and skills necessary for the supervision of inmates in the direct supervision environment. An emphasis will be placed on the evolution of direct supervision jails, as well as the management styles, interpersonal skills, policies and procedures, and day-to-day operations of direct supervision facilities. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **CRJ 121 Introduction to Criminal Justice (3-0) 3 Hours**

This course examines the legal process and the administration of justice in American society. Students will be exposed to the criminal process from the police function through adjudication, sentencing, and corrections, as well as the social, moral, and political issues involved in the administration of justice in a free society. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: CRJ 901**

### **CRJ 122 Introduction to Policing (3-0) 3 Hours**

This course examines the history, structure, and behavior of police in America. Students will be exposed to various topics, such as: the heritage of American policing; police systems including federal, state and local policing; the patrol function; police discretion; police-community relations; police accountability; and police and the Constitution. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* CRJ 121

### **CRJ 123 Introduction to Criminology (3-0) 3 Hours**

This course is designed to familiarize the student with the social and legal aspects of crime in American society. An emphasis is placed on the definition of crime and deviance, the nature and extent of the crime problem, the history of criminology, criminological theory, violent crime, economic crime, public-order crime, and victimology. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: CRJ 912**

### **CRJ 124 Introduction to Corrections (3-0) 3 Hours**

This course examines the history, philosophy, and administration of corrections in America. An emphasis will be placed on philosophies of punishment, sentencing strategies, the prison community, alternatives to incarceration, and various reform efforts. Critical issues facing corrections will be examined. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Typically offered fall and spring only*

**IAI: CRJ 911**

### **CRJ 212 Traffic Law Enforcement (3-0) 3 Hours**

This course is a survey of traffic law enforcement problems and responses. An emphasis will be on the history and growth of traffic problems, organization for traffic control, accident investigation, and the analysis and interpretation of accidents. Traffic laws in the Illinois Vehicle Code will also be covered. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* CRJ 121

*Typically offered spring only*

### **CRJ 213 Community Policing (3-0) 3 Hours**

This course is a survey of community policing in the law enforcement field. An emphasis is placed on police-community relations, interpersonal skills, dealing with diversity, interacting with special populations in the citizenry, victims of crime, criminal offenders, and coordinated crime prevention efforts in the community. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* CRJ 121

*Typically offered fall only*

### **CRJ 214 Substance Abuse and Criminal Justice (3-0) 3 Hours**

This course examines drugs in American society from a criminal justice perspective, including the nature and extent of drug-taking behavior, the history and theories of drug use and abuse, the relationship between drugs and crime, drugs and the criminal justice system, the specific legally-restricted drugs in our society, drug prevention and treatment, and drug policy. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* CRJ 121

### **CRJ 215 Issues in Criminal Justice (3-0) 3 Hours**

This course explores critical issues related to the criminal justice system. An in-depth study of a specific current issue in criminal justice will be offered. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*May be taken twice, but any topic only once*

### **CRJ 216 Police Management and Supervision (3-0) 3 Hours**

This course analyzes the administration and management of police operations. An emphasis is placed on the distribution of personnel, specialized units, communication models, leadership principles, budgetary issues, management theory, and supervisory techniques appropriate to law enforcement. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **CRJ 218 Criminal Justice Internship (0-15) 3 Hours**

This course is designed to broaden educational experience of students through appropriate observation of selected criminal justice agencies to correlate theory with actual practice. Students assigned to local criminal justice agencies and/or related agencies for a maximum of 16 hours per week. (1.2)

*Prerequisite:* Criminal Justice major with minimum of 30 semester hours completed and approval of criminal internship coordinator.

### **CRJ 219 Principles of Criminal Investigation (3-0) 3 Hours**

This course is an introduction of criminal investigation procedures; theory and practice of investigations. An emphasis is placed on methods of investigation for different types of criminal activity. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* CRJ 121

*Typically offered fall and spring only*

**CRJ 220 Independent Research (Variable) 1-3 Hours**

This course involves independent research and study under the direct supervision of a faculty member. Subject must be approved by the assigned faculty member. (1.2)

*Prerequisite:* Criminal Justice major and consent of the Criminal Justice department chair

**CRJ 221 Criminal Law (3-0) 3 Hours**

This course explores the history and development of the criminal law as a system of social control. An emphasis is placed on legal principles and substantive law. Elements of a crime, specific statutes, and various affirmative defenses are analyzed. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* CRJ 121

**CRJ 222 Criminal Procedural Law (3-0) 3 Hours**

This course exposes the student to the field of criminal procedural law. The course will examine certain civil liberties guaranteed in the Bill of Rights to the U.S. and Illinois Constitutions and how they relate to law enforcement procedures of arrest, search and seizure, and interrogation. An emphasis will be placed on the rulings of the U.S. Supreme and Federal Appellate Courts as well as on the rulings of the Illinois Supreme and Appellate Courts. Basic rules of evidence and formal charging will also be discussed. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* CRJ 121

**CRJ 223 Ethics in Criminal Justice (3-0) 3 Hours**

This course offers a thorough study of ethical philosophies and their application to criminal justice practitioners. Aspects of morality, leadership, ethical reasoning, professional standards, and codes of ethics will be addressed. Resolution of ethical dilemmas will also be considered. The practical focus of ethical decision making topics will center on law enforcement and correctional ethics and will include scenarios. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* CRJ 121

*Typically offered fall and spring only*

**CRJ 224 Institutional Corrections (3-0) 3 Hours**

This course will provide students with exposure to a variety of perspectives about the operations of the largest and most expensive component of the American criminal justice system, Institutional Corrections. Jails and prisons in the United States house more than two million Americans and continue to grow. This course will help students gain an understanding of how these systems operate as well as how they attempt to control the rapid growth in inmate populations, institutions, staff and expenses. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* CRJ 124

*Typically offered fall only*

**CRJ 227 Community-Based Corrections (3-0) 3 Hours**

This course examines the use of the community in the treatment and control of individuals in the correctional process. Students are exposed to such topics as probation, parole, restitution, community service, deferred prosecution, work release, halfway houses, group homes, and other strategies designed for community corrections. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Typically offered spring only*

**CRJ 229 Juvenile Delinquency (3-0) 3 Hours**

This course examines juvenile delinquency in American society, including the historical, behavioral, legal, and correctional aspects of delinquency. Emphasis is placed on the nature and extent of delinquency in the United States, the traditional theories of delinquent behavior, and the legal processing of juvenile offenders. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* CRJ 121

**IAI: CRJ 914**

**CRJ 230 Principles of Courtroom Testimony (3-0) 3 Hours**

This course offers an in-depth study of evidence and courtroom testimony for professionals. It will cover the ethical philosophies of courtroom and administrative hearing testimony and their application to practitioners in the field. Students will work toward mastering an understanding of basic courtroom evidence and testifying from scenarios. Upon completion of this course the student will be prepared to offer competent testimony at any trial or hearing. (1.2)

*Prerequisite:* College Reading and Writing Readiness

**CRJ 248 Psychology of the Criminal Mind (3-0) 3 Hours**

This course exposes the student to the field of Criminal Psychology. The purpose of this course is to develop an understanding as to the origins of criminal behavior and the clinical and social implications of violent crime. The course will examine the etiology, nature, assessment, and behavior of individuals who commit crime with an emphasis on violent crimes. Included in this examination will be the role of the family and other social factors, media violence, and genetics. The basic rules of crime scene analysis and processing will also be discussed.

CRJ 248 and PSY 248 are cross-listed. (1.1)

*Prerequisite:* PSY 121 C or better,

*Recommended:* CRJ 219

**CRJ 270 Criminal Justice Assessment Seminar (3-0) 3 Hours**

This course is required of all the students completing the associate in applied science degree (A.A.S) in Criminal Justice. Students will be assessed as to the knowledge and foundational skills they have attained in the criminal justice program. Basic skills, thinking skills, and personal qualities will be evaluated as they relate to criminal justice occupations. Career development exercises will be conducted. A comprehensive examination is required. (1.2)

*Prerequisite:* Sophomore Standing

## Dance (DNC)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

**DNC 121 Introduction to Ballet I (3-0) 3 Hours**

This course is designed for students interested in the fundamentals of ballet, whether they are beginning ballet dancers, teachers of theater movement, returning dancers, or persons interested in dance as a fine art. It is also designed so that any college student will develop his/her kinesthetic intelligence (literacy) at the place and experience of his or her technical background. (1.1)

## Course Information and Descriptions

### **DNC 122 Modern Dance Technique I (3-0) 3 Hours**

This course is designed for students interested in the fundamentals of modern dance, whether they are beginning dancers, teachers of theater movement, athletes, or persons interested in dance as a fine art. It is also designed so that a student will develop his/her kinesthetic intelligence (literacy) at the place and experience of his/her technical background. Modern Dance Technique I will develop physical proficiency in variable movements that apply to all dance genres. (1.1)

### **DNC 123 Jazz Technique I (3-0) 3 Hours**

This course is designed for students interested in the fundamentals of jazz dance, whether they are beginning dancers, teachers of theater movement, athletes, returning dancers or persons interested in dance as a fine art. It is also designed so that any student will develop his/her kinesthetic intelligence (literacy) at the place and experience of his/her technical background. (1.1)

### **DNC 124 Beginning Yoga (3-0) 3 Hours**

In this course students will study the physical and philosophical foundations of Yoga, the ancient art of unifying the body and mind. Students will learn and practice physical postures (asanas), as well as techniques for proper breathing, relaxation and concentration. An introduction to the philosophy and history of Yoga are included in this study, which students will explore through readings and written assignments. Special attention will be paid to anatomy and kinesiology as it applies to the dancer. By the end of the course, students will demonstrate a kinesthetic awareness of the body, and the ability to use yoga as a tool for enhancing dance training, performance and daily living. This course is repeatable up to four times but will only count for graduation once. (1.1)

### **DNC 125 Elements of Dance Composition I (3-0) 3 Hours**

This course will explore the basic concepts of dance composition (i.e. space, time, gravity, energy), and aesthetic theories of choreography of dance, through variable choreographic assignments and exercises. This course will also include selected studies of acclaimed choreographers and their works in the history of dance. (1.1)

### **DNC 126 Dance Forms I (3-0) 3 Hours**

This course explores specific movements, styles, and social and cultural backgrounds of various dance forms. It will increase students' technical abilities as well as broaden their understanding of the history of selected dance traditions and practices throughout the world. Each semester, one to three various dance forms will be introduced. The students will be immersed in the physical characteristics of the movement aesthetics as well as the cultural context in which each dance form exists. Examples of dance forms include African, Indian, Native American, Tap, Irish, Flamenco, Kabuki, etc. (1.1)

*May be taken twice for credit; any form/level once*

### **DNC 129 Dance Practicum I (Variable) 1-3 Hours**

This course provides students with supervised practical experience in dance performance, technique studies, and/or production. Course can be tailored to various aspects of dance production including performance, choreography, teaching, directing, costume design, and lighting.

*Note:* This course is repeatable for a maximum of 12 hours, but only 6 credits may be applied toward degree completion.

*Prerequisite:* Consent of Instructor

*Recommended:* Strong verbal communication skills (1.1)

*May be taken twice for credit toward degree*

### **DNC 141 Beginning Hip Hop (3-0) 3 Hours**

This course is designed for students interested in the fundamentals of hip hop dance. The course will introduce students to the basic movement skills as well as develop an understanding of the historical and artistic aspects of hip hop culture. (1.1)

### **DNC 142 Beginning Capoeira (3-0) 3 Hours**

This course is designed for students interested in the fundamentals of Capoeira, an Afro-Brazilian martial art form that incorporates elements of dance, martial arts, music, and acrobatics. Students will be introduced to the basic movement skills, musical instruments and songs inherent in Capoeira, as well as engage students in developing an understanding of the historical and cultural aspects of Capoeira culture. (1.1)

### **DNC 143 Beginning Tap (3-0) 3 Hours**

This course is designed for students interested in the fundamentals of tap technique. Students will learn basic movement skills, rhythmic variations, tempo and musical phrasing through a series of tap combinations. Students will also develop an understanding of the historical and cultural aspects of tap as an American art form. (1.1)

### **DNC 160 Teaching Methods I (3-0) 3 Hours**

This course offers a philosophical and practical foundation for teaching movement-based arts across a variety of genres and ages. Students will be introduced to different educational philosophies while gaining practical skills for effective and safe teaching practices. Course topics include the development of a teaching philosophy, creating lesson plans with goals and objectives, classroom organization and management, basic alignment & kinesiology, technological modifications & enhancements for learning, as well as the impact of social, cultural, and psychological theories in relation to learning. Practical classroom teaching skills will also be studied & practiced; including verbal and hands-on cueing for correcting misalignment, teaching to different communities, the use of live and recorded music, and other topics that develop the confidence and wisdom of the movement teacher. *Recommended:* Completion of advanced technique level. (1.1)

### **DNC 221 Intermediate Ballet Technique (3-0) 3 Hours**

This course is designed for students continuing beyond the fundamentals of ballet, and wishing to develop his/her ballet technique. Intermediate Ballet will particularly stress strength, flexibility, musical ability and endurance; as such barre exercises will progress to relevé, and turns and batterie work will be doubled. Center work will also be extended, and if possible, some introductory pointe work will occur at mid-semester, (to be done only 15 minutes at the end of a class period). (1.1)

*Prerequisite:* DNC 121

### **DNC 222 Intermediate Modern Dance Technique (3-0) 3 Hours**

This course is designed for students continuing beyond the fundamentals of modern dance and wishing to develop their modern dance technique. Intermediate Modern Dance Technique is for beginning dancers, teachers of theater movement, athletes, or persons interested in dance as a fine art. Great choreographers will also be explored and imitated through various class sessions. (1.1)

*Prerequisite:* DNC 122

### **DNC 223 Intermediate Jazz Technique (3-0) 3 Hours**

Intermediate Jazz Technique is designed for students continuing beyond the fundamentals of jazz technique to further develop their dance skills. The course is for intermediate dancers, teachers of

theatre movement, returning dancers, athletes, or persons interested in dance as a fine art. Students will develop their kinesthetic literacy at the places and experiences of their technical backgrounds. Various great choreographers will be explored and imitated. (1.1)

*Prerequisite:* DNC 123

*May be taken twice for credit toward degree*

**DNC 224 Intermediate Yoga (3-0) 3 Hours**

In this course students will deepen their study and practice of yoga. Students will master the basic knowledge learned in Beginning Yoga, while studying advanced poses and breathing techniques. The course will look more deeply into Indian philosophy, responding in writing to portions of India's classic text, the Bhagavad-Gita. Special attention will be paid to anatomy and kinesiology as it applies to the dancer. By the end of the course, students will demonstrate an advanced kinesthetic awareness of the body, the ability to perform advanced poses, and a deeper understanding of the philosophy and science of yoga. This course may be taken up to four times, but will only count one time towards graduation. (1.1)

*Prerequisite:* DNC 124

**DNC 240 The Art of Dance (3-0) 3 Hours**

This course introduces students to an interdisciplinary, multicultural study of the art of dance. Combining an historical framework with various dance genres and a study of stylistic movement, the course introduces ancient and modern trends; a variety of genres, including ballet, modern, jazz, kabuki, court, and video; psychological and philosophical aspects of movement; and the work of selected choreographers. Students will examine cross-cultural and historical views of a variety of theatrical and non-theatrical dance forms and investigate the numerous ways that dance functions in different societies. Students will attend live dance performances and demonstrate the ability to contextualize their views within the framework of the course content. Students will also move from the study of history and the creative process of dance to the role of a member of the dance audience and dance critic. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: F1 906**

**DNC 241 Intermediate Hip Hop (3-0) 3 Hours**

This course is designed for students continuing beyond the fundamentals of hip hop dance, and with an interest in developing more advanced skills in hip hop technique. Intermediate hip hop is designed to expand the kinesthetic intelligence and cultural knowledge of hip hop as an art form. The course will introduce students to theories of how commercialization and globalization have impacted the evolution of hip hop across the world. (1.1)

*Prerequisite:* DNC 141 (C or better)

**DNC 242 Intermediate Capoeira (3-0) 3 Hours**

This course is designed for students continuing beyond the fundamentals of beginning Capoeira, and with an interest in developing more advanced skills in Capoeira technique. Intermediate Capoeira is designed to expand the kinesthetic intelligence and cultural knowledge of Capoeira as an art form. The course will introduce students to the developments of contemporary Capoeira and Capoeiristas who have made significant contributions to the development of Capoeira world-wide. (1.1)

*Prerequisite:* DNC 142 (C or better)

## Dental Hygiene (DHY)

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

**DHY 111 Preclinic Theory and Practice of Dental Hygiene (2-0) 2 Hours**

This course provides students with an introduction to the knowledge and skills to control and prevent dental disease. Principles of disease transmission, infection control, patient assessment, treatment planning and fundamental instrumentation will be presented. (1.2)

*Prerequisites:* BIO 244 and BIO 245 (both C or better) AND Admission to the Dental Hygiene Program

*Course fee*

**DHY 112 Theory and Practice of Dental Hygiene I (2-0) 2 Hours**

This course is a continuation of DHY 111. The principles and procedures will be systematically presented through lectures, reading assignments and case-based activities. Emphasis will be placed on infectious diseases, patient assessment and treatment planning through case studies, instrument sharpening, ultrasonic scaling, fluoride supplements, advanced instrumentation and medical emergencies. (1.2)

*Prerequisites:* BIO 246, DHY 113, DHY 115, DHY 117, DHY 171 (all C or better)

*Course fee*

**DHY 113 Pre-Clinical Dental Hygiene (0-6) 2 Hours**

This course provides clinical practice in fundamental dental hygiene and instrumentation skills on manikin (typodont) models and student partners. (1.2)

*Corequisite:* DHY 111

*Course fee*

**DHY 114 Clinical Dental Hygiene I (0-8) 2 Hours**

This course is a transition from the pre-clinic setting to beginning dental hygiene patient care. It is an orientation to clinic policies, procedures, and protocols as well as an opportunity to apply pre-clinical skills to patient care. (1.2)

*Corequisite:* DHY 112

*Course fee*

**DHY 115 Head and Neck Anatomy (2-0) 2 Hours**

This course includes detailed study of the anatomy of the head and neck with special emphasis on the human skeletal, muscular, glandular, circulatory, nervous and epithelial structures of the head and neck. (1.2)

*Corequisite:* DHY 111

*Course fee*

**DHY 116 Dental Radiology I (2-3) 3 Hours**

This course provides the basic fundamentals of radiology. Theory in radiation physics, safety and biological effects of ionizing radiation will be introduced. The laboratory portion of the course introduces intraoral and extraoral exposure techniques, processing, mounting, edentulous radiography, digital radiography and fundamental interpretation of dental radiographs. (1.2)

*Corequisite:* DHY 112

*Course fee*

## Course Information and Descriptions

### **DHY 117 Dental Anatomy (1-2) 2 Hours**

This course introduces the students to terminology relating to anatomic structures of the oral cavity. Special emphasis is placed on the teeth and root morphology of both primary and permanent teeth and occlusal classification. (1.2)

*Corequisite:* DHY 111

*Course fee*

### **DHY 119 Nutrition and Biochemistry (2-0) 2 Hours**

The course provides the students with a foundation of the fundamental principles of oral biochemistry, and biochemistry. Emphasis will be placed on nutrition and the effects of nutrition on the oral cavity and supporting structures of the teeth, and assessment of patient's nutritional needs. (1.2)

*Corequisite:* DHY 112

*Course fee*

### **DHY 131 Oral Histology and Embryology (2-0) 2 Hours**

This course provides students with an introduction to the microscopic characteristics of the tissues of the oral cavity. Human histology and orofacial embryology will be introduced. (1.2)

*Corequisite:* DHY 111

*Course fee*

### **DHY 132 Theory and Practice of Dental Hygiene II (1-0) 1 Hour**

This course is a continuation of DHY 112. The fundamental theories necessary to perform oral prophylaxis treatment will be the focus.

The principles and procedures will be systematically presented through lectures, reading assignments and case-based activities. (1.2)

*Prerequisite:* DHY 112, DHY 114, DHY 116, DHY 119, DHY 174, and DHY 175 (all C or better)

*Course fee*

### **DHY 134 Pain Management (1-2) 2 Hours**

The course focuses on the safe and effective practice of local anesthesia in dentistry. Emphasis is on avoiding the complications that may result from hazards or errors in technique. (1.2)

*Corequisite:* DHY 179

*Course fee*

### **DHY 171 Preventive Dental Hygiene (2-0) 2 Hours**

This course provides students with a foundation of knowledge in the activities of preventive dental hygiene. Topics include plaque and calculus control, etiology and progression of dental disease, tooth brushing and flossing techniques, dental hygiene aids, and care of appliances. (1.2)

*Corequisite:* DHY 111

*Course fee*

### **DHY 174 Introduction to Periodontics (2-0) 2 Hours**

This course introduces the student to the fundamental theories of periodontics. The course focuses on macro and micro anatomy, biochemistry and physiology of the periodontium. Epidemiology, microbiology and the etiology of periodontal disease will also be included. (1.2)

*Corequisites:* DHY 112

*Course fee*

### **DHY 175 Dental Pharmacology and Anesthetic (2-0) 2 Hours**

This course is an introduction to the study of drugs, including their pharmacologic effects, adverse reactions, indications, and contraindications as they relate to the patient's medical history and dental hygiene treatment. (1.2)

*Corequisite:* DHY 112

*Course fee*

### **DHY 176 Dental Material and Expanded Function (2-2) 3 Hours**

This course provides fundamental information about the use and manipulation of materials used in dentistry and expanded functions performed by dental auxiliaries. Emphasis is placed on materials and functions utilized by the dental hygienist. (1.2)

*Corequisite:* DHY 179

*Course fee*

### **DHY 179 Clinical Dental Hygiene II (0-6) 2 Hours**

This course is a continuation of Clinical Dental Hygiene I. Analysis of assessment findings is emphasized in order to plan and implement individualized comprehensive dental hygiene patient care. (1.2)

*Prerequisite:* DHY 112, DHY 114, DHY 116, DHY 119, DHY 174 (all C or better)

*Corequisite:* DHY 132

*Course fee*

### **DHY 211 Theory and Practice of Dental Hygiene III (2-0) 2 Hours**

This course is a continuation of DHY 179. Emphasis is placed on medically compromised and special needs patients. (1.2)

*Prerequisite:* DHY 134, DHY 176, and DHY 179 (C or better in all)

*Course fee*

### **DHY 212 Theory and Practice of Dental Hygiene IV (2-0) 2 Hours**

This course is a continuation of DHY 211. Emphasis is placed on professional relationships and the various roles dental hygienists encounter in the various dental specialties and personal preparation for dental hygiene practice. Includes practice management. (1.2)

*Prerequisites:* DHY 211, DHY 213, DHY 215, DHY 219, DHY 232, and DHY 271 (C or better in each)

*Course fee*

### **DHY 213 Clinical Dental Hygiene III (0-12 hours) 4 Hours**

This course is a continuation of Clinical Dental Hygiene II. Problem solving, critical thinking, and self-evaluation are emphasized as well as timely dental hygiene patient care. (1.2)

*Prerequisite:* DHY 179 (C or better)

*Corequisite:* DHY 211

*Course fee*

### **DHY 214 Clinical Dental Hygiene IV (0-12 hours) 4 Hours**

This course is a continuation of Clinical Dental Hygiene III with advanced clinical treatment techniques and emphasis on the dental hygiene diagnosis and non-surgical periodontal therapy. (1.2)

*Prerequisite:* DHY 213 (C or better)

*Corequisite:* DHY 212

*Course fee*

### **DHY 215 Dental Radiology II (1-3) 2 Hours**

This course is a continuation of DHY 116 Dental Radiology I.

Emphasis is placed on oral maxillofacial radiographic interpretation in conjunction with analyzing case studies. (1.2)

*Corequisite:* DHY 211

*Course fee*

### **DHY 216 Ethics and Jurisprudence (1-0) 1 Hour**

This course focuses on the ethical and legal obligations of the dental professionals to the community and public they serve. (1.2)

*Corequisite:* DHY 212

*Course fee*

**DHY 219 Advanced Periodontics (2-0) 2 Hours**

Course content includes additional knowledge required to diagnose and treat periodontal diseases, clinical management of the periodontium and adjunctive therapies relevant to the maintenance of periodontal health. Emphasis is placed on the differential diagnosis and treatment of periodontal disease. Surgical and post-surgical topics will also be covered in this course. (1.2)

*Corequisite:* DHY 211

*Course fee*

**DHY 231 Board Review and Licensure (1-0) 1 Hour**

This course provides the students with a review of the fundamental knowledge needed to be successful on the National and Regional Board Exams.

Emphasis is on preparation for board exams and requirements for dental hygiene licensure. (1.2)

*Course fee*

**DHY 232 General and Oral Pathology (2-0) 2 Hours**

This course focuses on the fundamentals of the general and oral pathological processes. Emphasis is placed on the diseases and disease processes of the periodontal tissues and oral structures. Clinical manifestations of disease will be correlated with dental hygiene practice. (1.2)

*Corequisite:* DHY 211

*Course fee*

**DHY 271 Community Dentistry I (2-0) 2 Hours**

This course introduces the current concepts of community health. The course focuses on how community dental health issues relate to the delivery of dental care to society. Emphasis is placed on the value of the role of the dental hygienist in public health. Students will learn to review and interpret dental scientific literature. (1.2)

*Corequisite:* DHY 211

*Course fee*

**DHY 272 Community Dentistry II (0-4) 1 Hour**

This course focuses on implementation and evaluation of community outreach programs and the delivery of dental care to society. (1.2)

*Corequisite:* DHY 212

*Course fee*

## Digital Media and Design (DMD)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

**DMD 111 Introduction to Digital Media (3-0) 3 Hours**

This course will explore the variety of hardware and software now used to produce digital media, from simple audience-oriented presentations to highly interactive applications. Through lectures, demonstrations, and hands-on laboratory experience, we will examine the production techniques, application uses, trends, business and legal concerns, design elements, and the product evaluation standards currently used in the digital media industry. Students will develop the design, storyboards, and prototype for a project. (1.2)

*Course fee*

**DMD 113 History of Graphic Design (3-0) 3 Hours**

This course is a general survey of the history of graphic design from its origins to contemporary practice. The goals of this course are to provide the following: the visual vocabulary of the development of signs and symbols, insight into the continuity of design thinking, understanding the social/political context of the practice, foundation for pursuit of research in the field of design. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

*Typically offered fall and spring only*

**DMD 115 Internet Fundamentals (3-0) 3 Hours**

This course addresses in detail everything students need to know to access, explore, and use the world's richest information resource: the Internet. The course examines software, online provider options, costs, the telecommunication process, E-mail, FTP, Chat, Usenet, the World Wide Web and Web 2.0. Students will get step by step instructions on how to access, research, and retrieve academic, personal, and professional information. (1.2)

*Course fee*

**DMD 116 Web Design and Development (2-2) 3 Hours**

This course is an introduction to Web page design and creation using industry standard Web design software. Students will learn to use graphics, sound, video, animation, scripts, and Cascading Style Sheets (CSS) to enhance Web pages. The course will cover the basic concepts of Web design and color with an emphasis on designing for visual appeal and user-friendly navigation. Students will also gain a fundamental knowledge of HTML/XHTML and the skills to publish and maintain Web sites.

*Note:* Recommended DMD 111 or DMD 115 or student must possess basic computer/Internet skills which include creating, saving, and editing files in the Windows or MAC operating systems; performing basic editing (copy/paste); copying files; using folders and subfolders to organize and manage files; downloading files off the Internet; opening Web sites; and using search engines. (1.2)

*Course fee*

**DMD 117 Concepts in New Media (3-0) 3 Hours**

This course is an introductory evaluation of the critical concepts of new media, and their impact on our society and culture. Through readings, lectures, group discussions and hands-on experience, students will study the technical, economic, political, legal, aesthetic, and cultural implications of new media. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

*Typically offered fall and spring only*

**DMD 157 Introduction to Animation (2-2) 3 Hours**

This course will introduce students to 2D animation using state-of-the-art industry relevant software and hardware. Students will explore various animation concepts and techniques including history, drawing, rotoscoping, basic movement, timing, soundtrack/dialogue synchronization, and editing. Through lectures, discussions, demonstrations and screenings students will view and discuss animation that is currently used in television, film, interactive media and the Internet. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

*Typically offered fall and spring only*

## Course Information and Descriptions

### **DMD 173 Introduction to Digital Sound (3-0) 3 Hours**

This course introduces students to the exploration of digital sound for multimedia. Students will learn how to manipulate wave files, understand various sound file formats, compressions, history of digital sound, and the difference between analog and digital sound editing. Students will write and develop sound scripts and sound projects for multimedia. Students will explore the different job functions of audio production and learn to work together in a team environment. The course will also introduce students to the basics of producing audio for the Web and interactive applications. (1.2)

*Course fee*

*Typically offered fall and spring only*

### **DMD 174 Typography (2-2) 3 Hours**

This course introduces students to the use of typography within the design process. Major topics to cover include anatomy of letterforms, type history, classification systems, methods of typographic communication, critical comparisons of type styles, contemporary trends and typography as image. Students will learn both technical and creative ways type can be used through lectures, discussion, critiques, and hands-on projects. The course explores 2D communication and design solutions using typography. (1.2)

*Prerequisite:* DMD 113 or ART 122

*Course fee*

*Typically offered fall and spring only*

### **DMD 216 Interactive Scripting (2-2) 3 Hours**

This course is designed for digital media designers who need to integrate advanced control management and interactivity into their media applications. Students will gain a fundamental knowledge of a popular scripting language for making media applications that users can interact with. The focus of the course is on using pre-designed models and functions in industry-standard software that embed the scripting language to create interactivity involving graphics, audio, video, animation and other media elements. Students will use creative and logical thinking while completing three major projects concerning animation, game, and Web site design. The concepts, principles, and steps of interaction design will be introduced and applied to the projects. (1.2)

*Prerequisite:* DMD 116 or Consent of Instructor.

*Course fee*

*Typically offered fall and spring only*

### **DMD 217 Multimedia Authoring (3-0) 3 Hours**

This course is geared toward multimedia designers who will be creating kiosks, CD ROM software, marketing and educational software, and interactive sites. Students will use a popular authoring software package to create an interactive multimedia presentation. The design, storyboarding, prototyping, testing and production techniques for creating a multimedia package will be followed with the final project. (1.2)

*Typically not offered every term*

### **DMD 218 Advanced Web Design and Development (2-2) 3 Hours**

This course takes DMD 116 Web Design and Development to another level and has a two-fold focus. A state-of-the-art Web design program will be used to explore advanced Web production skills such as layers and table-free layouts, templates, re-usable elements, external Cascading Style Sheets, XML, automation of dynamic HTML, and site management. Through projects, the course will also cover more advanced design concepts in Web site creation, such as efficient navigation design, designing for portability and

accessibility, separating content from presentation for easy site updating and maintenance, planning interactivity, and search engine optimization. Throughout the course, students will also review how to adapt the basic principles of design to the Web environment, particular how to use color and typography creatively in Web design, and how to achieve effective Web page layout. (1.2)

*Prerequisite:* DMD 116 -OR- CIT 170

*Course fee*

*Typically offered fall and spring only*

### **DMD 219 Building Instructional Websites (3-0) 3 Hours**

Students will examine the application of instructional design to teaching through an Internet or Intranet. Students will be creating advanced web pages for use in a training or educational setting, examining methods of creating interactive learning experiences and examining methods to integrate learning strategies into online course material. (1.2)

*Prerequisite:* DMD 111, DMD 115, DMD 116 or consent of instructor.

*Typically not offered every term*

### **DMD 233 Digital Video Editing (2-2) 3 Hours**

This course introduces students to the basics of postproduction non-linear digital video editing for multimedia, video and web capabilities. Students will produce, edit, and optimize video using industry relevant editing software. Upon completion of the course students will be able to create and produce digital videos and incorporated compressed and rendered projects into CD ROMs, DVD and Web technologies. In addition to learning the technical capabilities of the software, students will discuss digital video theory, concepts of video art and design, and the role digital video plays in the world of film, animation, animation and Web interactivity. (1.2)

*Course fee*

*Typically offered fall and spring only*

### **DMD 251 Advanced 3D Modeling (2-2) 3 Hours**

This course is designed as an advanced modeling course for students who are experienced with basic 3D modeling concepts and technical practice. The course introduces more sophisticated concepts and techniques such as polygon modeling, texture mapping, lighting and rendering. Through hands-on practice students will focus on modeling concepts and development relating to character, environmental, materials and lighting design. (1.2)

*Prerequisite:* ART 264

*Course fee*

*Typically offered fall and spring only*

### **DMD 253 Advanced 3D Animation (2-2) 3 Hours**

This course is designed as an advanced animation course for students who are experienced with basic 3D animation concepts and technical practice. The course introduces more sophisticated concepts and techniques with an emphasis on animation development through hands-on practice. The course will focus on animation concepts and creative animation design expanding students' knowledge of topics, tools and techniques. (1.2)

*Prerequisite:* ART 264

*Course fee*

*Typically offered fall and spring only*

**DMD 256 Dynamic Web Design and Development (2-2) 3 Hours**

This project-based, advanced course is developed for digital media designers who will be creating Web sites with dynamic content and secure data transfer. Students will learn to use industry-standard software/applications to set up Web sites with dynamic content and professional-quality customizable pages. Emphasis will be on how to use the built-in features of the software/applications to complete desired tasks, such as form processing, retrieving data from a database and updating the database from a Web interface, and giving the user password-secured access to Web sites. Students will learn the basic syntax of a popular server-side language for dynamic page generation. The database query language SQL will also be introduced. (1.2)

*Prerequisite:* DMD 116 with a grade of C or better.

*Course fee*

*Typically offered fall and spring only*

**DMD 257 Interactive Animation (2-2) 3 Hours**

This course is an overview of developing and designing interactive presentations, animations and Web sites using an industry relevant, vector-based interactive animation program. Topics covered include storyboarding, 2D animation, scripting, navigational mapping and motion graphics. Upon completion of the course students should be able to design and create interactive presentations utilizing animations, audio, video, and navigational components incorporated into CD ROM, DVD and Web technologies. In addition to learning the technical capabilities of the software, students will discuss Multimedia theory, concepts of interactive art and design, and the role interactive animation plays in the world of Web interactivity. (1.2)

*Prerequisite:* DMD 116 or Consent of Instructor.

*Course fee*

*Typically offered fall and spring only*

**DMD 259 3D Special Effects (2-2) 3 Hours**

This course is designed as an advanced level computer course using state-of-the-art industry-relevant special effects 3D software. In conjunction with 3D modeling and animation, students will learn to create and produce special effects including: atmospheric effects, natural effects, smoke, explosions, motion blurs, and advanced texture and material generation. Concepts, theories and terms relating to special effects used in films, games, interactive media and the Internet will be discussed. (1.2)

*Prerequisite:* DMD 251 and DMD 253

*Course fee*

*Typically offered fall and spring only*

**DMD 273 Advanced Electronic Graphic Publishing (2-2) 3 Hours**

This course is designed as an advanced study of two dimensional design principles for creating page layout. The course will provide students the opportunity to develop a complete print identity design system in support of a marketing strategy including strategies of consumer decision-making. Students will develop all aspects including a fully functioning prototype for a variety of different client needs. The course will look into the mass production issues as well as specialty types of print packages. (1.2)

*Prerequisite:* ART 271 and Basic Algebra Readiness

*Course fee*

*Typically offered fall and spring only*

**DMD 277 Digital Media Delivery (2-2) 3 Hours**

This advanced-level course will examine various software programs and techniques for generating, delivering and managing streaming/live media content. Students will learn digital media data types, compression technologies and streaming technologies. Tools

and techniques for graphics and audio/video capture will be reviewed. Students will also explore applications for building content sharing in a networked environment. They will build a prototype Web application with streamed/live media as a final project. (1.2)

*Prerequisite:* DMD 116 and DMD 173 OR DMD 233 and College Reading and Writing Readiness OR Consent of Instructor

*Course fee*

*Typically offered fall and spring only*

**DMD 279 Packaging Design (2-2) 3 Hours**

This course is designed as an overview of two dimensional design principles for creating three-dimensional packaging. The history of design packaging and strategies of consumer decision-making will be explored. The course will provide students the opportunity to develop a complete package identity design system in support of a marketing strategy. Students will develop all aspects including a fully functioning prototype for a variety of different client needs. The course will look into the mass production issues as well as specialty types of packaging. (1.2)

*Prerequisite:* Basic Algebra Readiness, DMD 174, and DMD 273

*Course fee*

*Typically offered fall and spring only*

**DMD 299 Selected Topics in Digital Media and Design (Variable) 1-3 Hours**

This course addresses the in-depth study of special topics in digital media and design that explore cutting-edge knowledge, concepts and techniques, and new developments in the industry. Course content will vary depending on the topic being studied. (1.2)

*Course fee*

*May be taken four times, but any topic only once*

## Early Childhood Education (ECE)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

**ECE 116 Creative Activities (2-2) 3 Hours**

This course focuses on facilitating creative activities and environments for young children ages three through eight. Course includes experiences in art, music, language arts, science, mathematics, and dramatic/social play. Each class involves discussion of child development theory, hands-on experiences in planning and implementing appropriate activities, exchange of ideas, and collaborative strategies.

*Note:* Materials fee required. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

**ECE 117 Creative Activities for Infants and Toddlers (3-0) 3 Hours**

This course focuses on developing appropriate creative experiences and environments for children from birth through age three. Content includes choosing quality books, planning and implementing sensory activities, music and movement experiences, language play, exposure to the natural world, developing fine and gross motor skills, exploring art media, pretend play, and social interaction.

*Note:* Materials fee required. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

## Course Information and Descriptions

### **ECE 121 Introduction to Early Childhood Education (3-0) 3 Hours**

This survey course provides an overview of early childhood care and education including historical and cultural perspectives, organization, structure, programming, and evidence-based practices. Professional and evidence-based practices of highly-qualified early childhood educators are outlined with an emphasis on their ability to enhance development and learning of each and every child between the ages of birth and eight. Considerations for diversity of culture, language, race, socioeconomic status, gender, ethnicity, and ability will be included.

*Note:* Students are required to complete ten hours of field observations in diverse early childhood settings. Current Illinois State Police criminal background check may be required. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **ECE 124 Child Development for Educators (3-0) 3 Hours**

This course provides an overview of the theory and principles of human growth and development from conception through adolescence. Content includes an in-depth study of the inter-relatedness of physical, cognitive, social and emotional aspects of development. Development is studied in the context of family, gender, culture, language, ability, socioeconomics, diversity, and society. Special emphasis will be on the theories of Piaget, Vygotsky, Erikson, and Gardner with implications for applied classroom practice.

ECE 124 and EDU 124 are cross-listed. (1.1)

*Prerequisite:* College Reading and Writing Readiness

### **ECE 132 Professional Ethics in Early Childhood Education (1-0) 1 Hour**

This course acquaints the student with the importance of professional ethics in early childhood education as they apply to children, families, colleagues, community/society and administrators. Students will develop skill in making responsible professional judgments based on the Code of Ethical Conduct and Statement of Commitment set forth by the National Association for the Education of Young Children. (1.2)

*Prerequisite:* ECE 121 (C or better)

### **ECE 133 Family Child Care Management (3-0) 3 Hours**

This course focuses on the specialized knowledge and skills needed to provide high quality family-based child care for children 6 weeks to 12 years of age. Topics include Illinois Department of Children and Family Services regulations and other legal requirements related to physical environment and health, safety and nutrition; child development principles and best practices; appropriate guidance and curriculum for multi-age groups; relationships with culturally diverse families and coworkers. Skills needed to operate a small business are also discussed. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **ECE 141 Health, Safety, and Nutrition for Young Children (3-0) 3 Hours**

This course provides an overview of the health, safety and nutritional needs of young children and early childhood practices to ensure the health and well-being of each child in a group setting. Content includes roles and responsibilities of adults in meeting children's diverse needs, the promotion of healthy lifestyle practices, understanding common childhood illnesses and injuries, meeting health, nutrition and safety standards, and planning nutritious meals that are appropriate for each child. (1.1)

*Prerequisite:* College Reading and Writing Readiness

### **ECE 214 Group Care of Infants and Toddlers (3-0) 3 Hours**

This course is an overview of infant and toddler early care and education programs. Emphasis is on the care and protection of very young children; developmentally appropriate curriculum; working with diverse families; the impact and interaction of the physical environment and social climate on the young child. This course includes a required field experience of 20 daytime hours at a site determined by the Instructor. (1.2)

*Prerequisite:* ECE 121 and ECE 124 (both C or better), and current Illinois State Police criminal background check required. Current medical documentation may be required.

### **ECE 215 Music Activities for Young Children (2-2) 3 Hours**

(Formerly ECE 115) This course emphasizes the role of music in the early childhood program through descriptive lecture and experiential music activities. The sequence of children's musical development and the relationship between early music exposure and children's physical, social/emotional, and cognitive development will be covered. Skills in singing, listening, creative movement, and using rhythm instruments will be developed. Previous music experience is not required. (1.2)

*Prerequisite:* ECE 124 or EDU 124 (both C or better)

### **ECE 220 Observation and Assessment (3-0) 3 Hours**

This course prepares students to complete authentic, alternative, classroom-based assessments on young children, as well as manage standardized tests in an appropriate manner. The course will further provide the student with the knowledge and skills to interpret and use the information gained to plan curriculum that is responsive to and supportive of children's learning and development. Students will have the opportunity to engage in assessment processes through classroom observations, providing each student with a stronger understanding of child development skills. Students learn about and explore a variety of age, linguistically, individually, and culturally appropriate formal and informal assessments. Students will practice gathering and sharing information on each child's skills, abilities, interests and needs, birth through age 8. Includes required daytime field experience hours in diverse settings.

*Note:* Current Illinois State Police criminal background check required. (1.2)

*Prerequisite:* ECE 121 and ECE 124 (both C or better)

### **ECE 223 Child, Family, and Community (3-0) 3 Hours**

This course focuses on the diverse needs of the child within the context of family, school and community. The course will examine the interplay of diverse cultures, lifestyles, abilities, language and communication with the role of the early childhood environment and other community institutions. Students will gain an understanding of their professional role in supporting evidence-based practices that strengthen respectful, collaborative family/child partnerships through effective use of community and family resources. (1.2)

*Prerequisite:* ECE 121 and ECE 124 (both C or better)

### **ECE 229 Language Development and Early Literacy (3-0) 3 Hours**

This course focuses on the development of speech, language, and emergent literacy in the young child. Students will gain an understanding of how children progress through stages of language acquisition, as well as the influence of culture and diversity on language and literacy development. Students will explore and develop strategies for facilitating language development and emergent literacy, create integrated curriculum activities, and assess children's literature for developmental and cultural appropriateness. (1.2)

*Prerequisite:* ECE 121 and ECE 124 (both C or better)

**ECE 231 School-Age Programming (3-0) 3 Hours**

This course examines knowledge and skills needed to work effectively with school-age children from diverse cultural and socioeconomic backgrounds. It focuses on planning, organizing, and implementing appropriate curriculum for school-age children in organized childcare programs. (1.2)

*Prerequisite:* ECE 121 and ECE 124 (both C or better)

**ECE 233 Young Children with Special Needs (3-0) 3 Hours**

This course focuses on practical techniques for working with young children, from birth through age five, in inclusive early childhood settings. Characteristics of children with various types of special needs, as well as curriculum, routines, and classroom management strategies, are identified. The historical, philosophical, and legal basis for the importance of family involvement in early intervention services and programs is explored. (1.2)

*Prerequisite:* ECE 121 and ECE 124 (both C or better)

**ECE 241 Guidance and Social Development (3-0) 3 Hours**

This course introduces practical principles and techniques for providing a balanced, child-centered approach to addressing the developmental needs and abilities of children in the early childhood years. Course content includes review of general theories of child guidance and how guidance encourages autonomy and self-discipline while promoting development of positive self-concept and early social development. Emphasis is placed on encouraging self-esteem, activities to promote pro-social behaviors, the relationship between the classroom environment and behavior, and the importance of observation to understand the underlying causes of behavior. (1.2)

*Prerequisite:* ECE 121 and ECE 124 (both C or better)

**ECE 242 Math Activities for Young Children (3-0) 3 Hours**

This course incorporates theories, research, and pedagogy as it relates to the emergence and development of mathematical concepts, knowledge, and skill development in young children. Includes review of basic mathematical concepts and terminology for teacher preparation in early childhood education. Emphasis is on the exploration of principles, methods, and developmentally appropriate materials within the early childhood classroom. Students learn and demonstrate how to promote children's emerging math skills and concepts through hands-on discovery and play. Includes planning, preparation, and assessment techniques for relevant early childhood math curriculum. (1.1)

*Prerequisite:* ECE 121 AND ECE 124 or EDU 124 (all C or better)

*Recommended:* Basic Algebra Readiness

**ECE 250 Early Childhood Education Practicum - Infants and Toddlers (0-4) 2 Hours**

This course provides students with the opportunity to apply evidence-based practices based on early childhood education principles and theories and is focused on the unique needs of infants and toddlers. Students work with diverse young children and families in high-quality, culturally, linguistically, and ability diverse early childhood settings under the supervision of a site supervisor and a college course work supervisor. 10-12 hours of classroom work with infants and/or toddlers will be required each week for a total of 150 hours.

*Note:* Students taking this course must be enrolled in the Early Childhood Education A.A.S. Current Illinois State Police criminal background check required along with current medical documentation. (1.2)

*Prerequisite:* 30 cr hrs in ECE courses to include ECE 117, 132, 141, 214, 215, 220, 223, 229 and 241 (all C or better); CLC GPA 2.40 or above; Dept Chair approval 60 days prior to the first day of the semester.

Concurrent Enrollment: ECE 250 and 251

**ECE 251 Curriculum Development I (2-0) 2 Hours**

This course covers the principles involved in planning, implementing and evaluating developmentally appropriate, evidence-based curriculum to meet the unique needs of infants and toddlers. The course focuses on relationships among developmental theory, philosophy, practice, and development of curriculum based on the needs and interests of young children including those who are culturally, linguistically, and ability diverse. The analysis of a wide range of early childhood curriculum models is emphasized.

*Note:* Students taking this course must be enrolled in the Early Childhood Education A.A.S. (1.2)

*Prerequisite:* 30 cr hrs in ECE courses to include ECE 117, 132, 141, 214, 215, 220, 223, 229 and 241 (all C or better); CLC GPA 2.40 or above; Dept Chair approval 60 days prior to the first day of the semester.

Concurrent Enrollment: ECE 250 and 251

**ECE 252 Early Childhood Education Practicum - Preschool (0-4) 2 Hours**

This course provides students with the opportunity to apply evidence-based practices based on early childhood education principles and theories, focused on young children ages 3 - 5. Students work with diverse young children and families in high-quality, culturally, linguistically, and ability diverse early childhood settings under the supervision of a site supervisor and a college course work supervisor. 10-12 hours of classroom work with preschool-age children will be required each week for a total of 150 hours.

*Note:* Students taking this course must be enrolled in the Early Childhood Education A.A.S. Current Illinois State Police criminal background check required along with current medical documentation. (1.2)

*Prerequisite:* 30 cr hrs in ECE courses to include ECE 116, 121, 124, 132, 141, 215, 220, 229 and 241 (all C or better); CLC GPA 2.40 or above; Dept Chair approval 60 days prior to the first day of the semester.

Concurrent Enrollment: ECE 252 and 253

**ECE 253 Curriculum Development II (2-0) 2 Hours**

The principles involved in planning, implementing and evaluating developmentally appropriate, evidence-based curriculum for preschoolers are studied. The course focuses on relationships among developmental theory, philosophy, practice, and development of curriculum based on the needs and interests of young children including those who are culturally, linguistically, and ability diverse. The analysis of a wide range of early childhood curriculum models is emphasized.

*Note:* Students taking this course must be enrolled in the Early Childhood Education A.A.S. (1.2)

*Prerequisite:* 30 cr hrs in ECE courses to include ECE 116, 121, 124, 132, 141, 215, 220, 229 and 241 (all C or better); CLC GPA 2.40 or above; Dept Chair approval 60 days prior to the first day of the semester.

Concurrent Enrollment: ECE 252 and 253

**ECE 254 Early Childhood Education Practicum - Administrative (0-8) 4 Hours**

This course is a practicum designed for those individuals who are interested in serving as administrators or directors of early childhood programs. The focus of this practicum experience is the application of early childhood leadership strategies, administrative skills and knowledge. Students are supervised by a college instructor, while working closely with an assigned early childhood program administrator or director. Course assignments are focused on

## Course Information and Descriptions

program assessment and improvement, staff training, parent education, and fiscal and business management. The student will be supervised by a qualified director for 300 documented hours as mandated by the Illinois Gateways to Opportunity Director Credential - Level I. Other requirements for this Illinois Director Credential also apply. See Department Chair for further information. (1.2)

*Prerequisite:* Completion of all other course requirements for Administration and Leadership of Early Childhood Education Certificate 25EF; Overall G.P.A. of 2.5; and Consent of Department Chair 60 days prior to enrollment.

### **ECE 270 Organization and Administration of Early Childhood Programs (3-0) 3 Hours**

This course is intended for students who are interested in becoming or who are currently serving as leaders of early childhood programs (directors, assistant directors, program coordinators). The course will acquaint students with the organization, regulation, management, and evaluation of programs serving young children. Course content includes staff management including staff selection, mentoring, supervision, and evaluation; parent and community relationships; children's educational programming; safety, design, and arrangement of the physical environment; use of technology; advocacy. Issues of culture and diversity are explored, as well as strategies for respectful communication, problem-solving, and collaboration with families and the community. (1.2)

*Prerequisite:* ECE 121, ECE 124, and 9 additional credit hours in Early Childhood Education (all with grades C or better).

### **ECE 299 Special Topics in Early Childhood Education (Variable) 1-3 Hours**

These special topic courses will focus on a specific current issue in the area of early childhood care and education. A maximum of 6 credit hours of ECE 299 or EDU 299 may be used as elective toward an AAS or AA degree in early childhood education. (1.2)

*Prerequisite:* To be determined relative to topic  
*May be taken four times, but any topic only once*

## Earth Science (ESC)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

### **ESC 120 Earth Science (3-2) 4 Hours**

This course is designed for students of non-science or science major who are interested in physical features related to our dynamic earth. Topics of the course include some fundamental concepts and features in geology, meteorology and astronomy, such as earthquakes, volcanic activities weathering process, surface water, atmosphere components, weather, the universe, the solar system, etc. Course materials are organized to enable students to understand how different components of our dynamic earth are related to one another. Most topics are assisted with hands-on lab exercises. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

**IAI: P1 905L**

### **ESC 121 Physical Geology (3-2) 4 Hours**

For those who wish to explore an interest in geology, major in geology, or satisfy lab science requirements. Topics include igneous rocks and volcanism, sedimentary rocks and stratigraphy, metamorphic rocks and metamorphism, weathering, mass wasting, streams, deserts and glaciers. Lab studies concentrate on minerals, rocks and topographic maps. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

**IAI: P1 907L**

### **ESC 122 Historical Geology (3-2) 4 Hours**

Primarily for those majoring in geology or those who wish to understand the geologic evolution of North America. Combines a regional and topical approach to continental development, crustal structure, and mountain building. Regional stratigraphy is integrated with the origin and evolution of plants and animals. Lab topics include structural geology, geologic maps, fossils, and a mapping project. (1.1)

*Prerequisite:* ESC 121

*Course fee*

### **ESC 123 Introduction to Meteorology (3-0) 3 Hours**

For the non-science major or those who wish to gain a comprehensive overview of the science of meteorology without a laboratory component. The primary goal of this course is to help students become better educated consumers of the massive amount of weather information now available to them. Topics will include high and low pressure systems, fronts, clouds, the jet stream, winter precipitation, thunderstorms and severe weather, hurricanes, air-ocean interactions (El Nino and La Nina), weather analysis, an introduction to weather forecasting, and human impacts on weather and climate. The student should be comfortable with interpreting maps, charts, and diagrams.

*Note:* students may not receive credit toward a degree for both ESC 123 and ESC 127. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 -AND- Basic Algebra Readiness

**IAI: P1 905**

### **ESC 124 Oceanography (3-0) 3 Hours**

For the non-science major or those who wish to gain a comprehensive overview of the science of oceanography. Topics include a history of oceanographic investigations; topography, structure, and evolution of the ocean basin; chemical and physical properties of ocean water and water masses; waves; tides; oceanic circulation; shoreline processes; estuaries; marine sediments; hurricanes; resources; fisheries; and ecology. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

**IAI: P1 905**

### **ESC 125 Geology of the National Parks (3-0) 3 Hours**

This introductory course is designed for students and community members who are interested in learning basic geologic features of national parks. No previous Geology or Earth Science knowledge is necessary. Topics include basic geologic principles and concepts, such as the Earth's materials (minerals and rocks), plate tectonics and various dynamic features related to the plate interactions, and a brief history of the Earth. Various unique geologic features in national parks are introduced and discussed.

*Note:* This course is for students who are pursuing either non-science

or science degrees and should help students prepare for a field travel/study course (ESC226, Field Geology, 3 credits) to various national parks offered in summers. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

**IAI: P1 907**

**ESC 126 Geology of Illinois (2-0) 2 Hours**

A survey of the principle aspects of Illinois geology, with emphasis on the landforms, rocks, soil, structure and glacial history of Illinois and parts of adjacent states. Also active geologic processes today, resource development, land and water use and management. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Typically offered spring only, even years only*

**ESC 127 Introduction to Meteorology with Lab (3-2) 4 Hours**

This course is intended for the non-science major or those who wish to gain a comprehensive overview of the science of meteorology with a laboratory component. The primary goal of this course is to help students become better educated consumers of the massive amount of weather information now available to them. Topics will include high and low pressure systems, fronts, clouds, the jet stream, winter precipitation, thunderstorms and severe weather, hurricanes, air-ocean interactions (El Nino and La Nina), weather analysis, an introduction to weather forecasting, and human impacts on weather and climate. The student should be comfortable with interpreting maps, charts, and diagrams.

*Note:* students may not receive credit toward a degree for both ESC 123 and ESC 127. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 -AND- Basic Algebra Readiness

**IAI: P1 905L**

**ESC 128 Great Mysteries of the Earth (3-0) 3 Hours**

This course is for the non-science major or those pursuing an interest in the geosciences. This course will examine selected mysteries, myths, and pseudoscience of our world from the content areas of earthquake myths, volcano myths, flood myths, landform myths, and mass extinctions through the application of the scientific method. Major topic examples may include Atlantis, Piltdown Man, and Noah's Flood. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

**IAI: P1 905**

**ESC 129 Severe and Hazardous Weather (3-0) 3 Hours**

This course is designed for students who wish to gain a better understanding of the causes and impacts of various types of extreme weather. Meteorological concepts and processes that cause severe and hazardous weather will be presented in a non-technical manner during the first part of the course. Subsequently, specific types of severe and hazardous weather will be examined as well as an investigation of their historical, economic, and human consequences. Severe weather topics may include lightning, hail, tornadoes, floods, drought, cold and heat waves, blizzards, ice storms, wind storms, hurricanes, and El Nino/La Nina. Students should be comfortable interpreting maps, charts, and diagrams. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 AND Basic Algebra Readiness

**IAI: P1 905**

**ESC 140 Introduction to Astronomy with Lab (3-2) 4 Hours**

This course is for the non-science major or those who wish to gain a comprehensive overview of the science of astronomy with a lab component. This descriptive treatment of astronomy will include topics such as the history of astronomy, the solar system, stellar evolution, the Milky Way, and beyond. Students may not receive credit toward a degree for both ESC 140 and ESC 141. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

**IAI: P1 906L**

**ESC 141 Introduction to Astronomy (3-0) 3 Hours**

This course is for the non-science major or those who wish to gain a comprehensive overview of the science of astronomy. This descriptive treatment of astronomy will include topics such as the history of astronomy, the solar system, stellar evolution, the Milky Way, and beyond. Students may not receive credit toward a degree for both ESC 140 and ESC 141. (1.1)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 or ELI 110 AND Basic Algebra Readiness

**IAI: P1 906**

**ESC 224 Environmental Geology (3-0) 3 Hours**

For the non-science major or as a foundation course for those wishing to major in environmental sciences. A critical and objective approach is utilized to evaluate the human interrelationship with geological hazards and problems. Volcanoes, earthquakes, landslides and subsidence, surface and groundwater hydrology, waste disposal, mineral resources, and the energy situation are all included. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

**IAI: P1 908**

**ESC 226 Field Geology (2-2) 3 Hours**

Introduction to basic geological field methods and application of geological concepts through field studies of selected regions. May include camping, backpacking, canoeing, and/or hiking, occasionally under rigorous conditions. Travel expenses are paid by the student. Should be considered a general education elective; will NOT meet CLC laboratory science requirement. (1.1)

*Course fee*

*May be taken twice, but any topic only once*

**ESC 299 Special Topics in Earth Science (Variable) 1-4 Hours**

This course is designed to provide students with information about specialized areas in Earth Science including areas such as geology, meteorology, oceanography, astronomy or climatology. Topics will be identified by course section: see course schedule for specific information. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*May be taken four times, but any topic only once*

### Economics (ECO)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

#### **ECO 110 Economics for Business and Industry (3-0) 3 Hours**

This course is a brief survey of both microeconomic and macroeconomic principles to provide the student with the basic tools to understand current economic problems and policies. It is intended for students pursuing an AAS degree. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 AND Department Consent

*Recommended:* Basic Algebra Ready

#### **ECO 221 Principles of Macroeconomics (3-0) 3 Hours**

The course surveys basic economic concepts with an emphasis on macroeconomic analysis and fiscal and monetary policies. Current economic problems such as inflation, unemployment, and stagflation are explored and discussed from diverse economic models (e.g.: Classical, Neo-Keynesian, Neo-Classical, Monetarist, and Rational Expectations Models). The discussions also include an analysis and critique of macroeconomic policies. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND MTH 102 OR MTH 105 (C or better) OR higher level math course (C or better) OR AOS 122 (C or better) OR appropriate score on Math Placement Test OR Math ACT score of 22 or higher

**IAI: S3 901**

#### **ECO 222 Principles of Microeconomics (3-0) 3 Hours**

This course deals with economic decision making at the level of the individual household, the individual firm, and individual markets.

The course covers basic microeconomic concepts such as competitive markets, supply and demand, elasticity, consumer theory, theory of the firm, competitive firms, monopoly, oligopoly, and monopolistic competition, resource pricing and select current economic problems. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND MTH 102 OR MTH 105 (C or better) OR higher level math course (C or better) OR AOS 122 (C or better) OR appropriate score on Math Placement Test OR Math ACT score of 22 or higher

**IAI: S3 902**

#### **ECO 223 Money, Banking, and Financial Markets (3-0) 3 Hours**

The course emphasizes the economic and monetary history and theory of money and banking in the United States. Primary focus is given to the role that banks and financial institutions serve in economic development. Also discussed are the impacts of Federal Reserve monetary policy decisions on the aggregate economy using macroeconomic analysis. The relative effectiveness of monetary policy on financial markets is also evaluated. (1.1)

*Prerequisite:* ECO 221 (C or better)

#### **ECO 224 Public Finance (3-0) 3 Hours**

This course explains the economic functions of government in a capitalistic economic system. It focuses on government operations in two distinct areas: government expenditure and government revenue. First, government expenditure programs are examined with primary emphasis on the provision of public goods and on welfare distribution functions. The second aspect of the course examines how the government collects revenue. Topics such as cost-benefit analysis and ability to pay and benefit principles of taxation are explained as well as the relationship between fiscal policy and debt and deficit management. (1.1)

*Prerequisite:* ECO 221 or ECO 222 (either C or better)

#### **ECO 225 Comparative Economic Systems (3-0) 3 Hours**

This course analyzes the role of economic institutions, policies, and producers in economic growth and macroeconomic stabilization in different countries across the world. It will use theory and application in case studies to analyze the varying approaches to using a market economy or other economic systems in the countries studied. This course fulfills the CLC international/multicultural requirement. (1.1)

*Prerequisite:* ECO 221 (C or better)

*Fulfills the CLC I/M Education Requirement.*

### Education (EDU)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

#### **EDU 121 Introduction to Teaching (2-2) 3 Hours**

This course provides the prospective teacher with an introduction to teaching in United States school systems. Other topics included are history and philosophy of education, school organization and governance, ethical and legal issues, the nature of teaching, curriculum, the social context, diversity, professional leadership, and current issues. (1.1)

*Prerequisite:* College Reading and Writing Readiness

#### **EDU 124 Child Development for Educators (3-0) 3 Hours**

This course provides an overview of the theory and principles of human growth and development from conception through adolescence. Content includes an in-depth study of the inter-relatedness of physical, cognitive, social and emotional aspects of development. Development is studied in the context of family, gender, culture, language, ability, socioeconomics, diversity, and society. Special emphasis will be on the theories of Piaget, Vygotsky, Erikson, and Gardner with implications for applied classroom practice.

ECE 124 and EDU 124 are cross-listed. (1.1)

*Prerequisite:* College Reading and Writing Readiness

#### **EDU 222 The Exceptional Child (3-0) 3 Hours**

This course is an overview of children and adolescents with exceptional cognitive, physical, social, and emotional characteristics, including learning disabilities. It includes assessment, screening, educational needs, family communication, community resources, and legal aspects. (1.1)

*Prerequisite:* EDU 124 (C or better) or PSY 226 (C or better)

**EDU 223 Technology in the Classroom (3-0) 3 Hours**

This course focuses on the uses of basic technology for management and instruction in PreK-12 classrooms. Students will develop the knowledge and skills they need to appropriately and responsibly use technology tools, resources, processes, and systems; to access, retrieve and evaluate information from various media; and to successfully integrate computers into the curriculum.

*Note:* Basic computer skills recommended. (1.1)

*Prerequisite:* ECE 121 or EDU 121 (both C or better)

*Course fee*

**EDU 224 Diversity in Schools and Society (3-0) 3 Hours**

This course will survey the personal, social, political, legal, cultural, and educational factors involved in diversity and human relations, and how these factors impact teaching, learning, and other human interactions. The course will cover the major diversity theories, as well as use an experiential model for making theoretical knowledge relevant in the individual teacher's life. Topics include racial, ethnic, social class, linguistic, religious, cultural, and sexual diversity. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* EDU 121

*Fulfills the CLC I/M Education Requirement.*

**EDU 225 Educational Psychology (3-0) 3 Hours**

This course addresses 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 will also be placed on learner-centered instruction and diversity. (1.1)

*Prerequisite:* ECE 121 or EDU 121 (both C or better) AND ECE 124 or EDU 124 (both C or better) OR PSY 121 (C or better)

**EDU 226 Introduction to the Foundations of Reading (3-0) 3 Hours**

This course is an introduction to theory and practice in teaching reading and related language arts areas. It includes information on basic components of reading and language arts instruction and on the importance of literacy learning. It introduces Illinois Learning Standards in the areas of reading and language arts. (1.1)

*Prerequisite:* EDU 121 and EDU 124 (both C or better)

**EDU 242 Observational/Clinical Experience in Education (0-2) 1 Hour**

This course is a pre-student teaching practicum. It allows students who are considering the field of education an opportunity to observe and interact with certified teachers and children in a classroom setting. Required participation includes a minimum of 30 clock hours in the public/private school classroom. A weekly 30 minute seminar is provided for students to focus on classroom issues including classroom management, effective teaching methods, and learning styles. Students will discuss positive/negative classroom situations as they gain experience through this practicum. Supervision will be provided by a cooperating teacher and the college instructor.

*Note:* (ECE 121 or EDU 121) AND (ECE 124 or EDU 124) are recommended but not required before taking this course.

Corequisites may also be taken as prerequisites. A criminal background check is required for this course. Please wait for instructions on the first day of class. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Corequisite:* ECE 121 or EDU 121 or EDU 222 or EDU 225

*May be taken three times for credit toward degree*

**EDU 299 Special Topics in Education (Variable) 1-3 Hours**

Special topics in the field of education will be developed. Topics will focus on a specific current issue in the areas of early childhood, elementary, secondary, or special education. A maximum of 6 credit hours of EDU 299 or ECE 299 may be used as elective credit toward an AA or AAS degree in education. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*May be taken four times, but any topic only once*

**EDU 999 Preparing for the TAP or ACT+Writing (Variable) 1-3 Hours**

This course is designed to prepare prospective teachers to take and pass the Test of Academic Proficiency (TAP) by refreshing or improving skills and abilities in Reading, Writing, and Mathematics. This course is repeatable up to three times, any topic only once, for a maximum of 3 hours toward degree completion. This course will also prepare students who wish to take the ACT plus writing test, as an alternative to the TAP. (1.1)

*Prerequisite:* College Reading and Writing Readiness and Basic Algebra Readiness OR Consent of Department

*Recommended:* ENG 121 and MTH 121 (both C or better)

*May be taken three times, but any topic only once*

## Educational Work Experience (EWE)

Cooperative Education Office, Building E,  
Room E101, (847) 543-2058

**New Course**

*(Effective Spring 2018) See Addendum.*

**EWE 120 Job Readiness Skills (1-0) 1 Hour**

**EWE 121 Introduction to Volunteerism (1-0) 1 Hour**

This course is designed to introduce students to the ideas and responsibilities of volunteering. Students will be made aware of various service-oriented volunteer agencies and activities. They will choose a volunteer experience where both the agency involved and the student contract to perform definite and supervised services for a specific period of time. (1.1)

**EWE 220 Cooperative Work Experience I (Variable) 1-4 Hours**

*Course Modification effective Spring 2018. For details, refer to addendum.*

For career and transfer students. Specific learning objectives agreed upon by the student, the student's work supervisor and the college instructor shall be accomplished at the work site. One credit is required for the EWE seminar which focuses on topics such as resume writing, interviewing, and the psychology of work. Students who have met the prerequisite credit hours register for 1.00 credit hour for the seminar portion of CO-OP and 1.00 to 3.00 credit hours for the work portion of EWE 220. (1.1)

*May be taken four times for credit toward degree*

**EWE 270 Cooperative Work Experience II (Variable) 1-3 Hours**

*Course Modification effective Spring 2018. For details, refer to addendum.*

For select degree/certificate seeking second semester CO-OP students. Additional credit is earned for new educational objectives agreed upon by the student, the student's EWE work supervisor and college EWE instructor. (1.2)

# Electrical Engineering Technology (EET)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

### **EET 113 Solid State Electronics (3-2) 4 Hours**

This course is an introduction to semiconductor devices and their applications. Operating principles and characteristics of diodes, transistors, JFETs, MOSFETs and thyristors are discussed. Transistor models using the h and r parameters are covered. Various transistor configurations and biasing techniques are studied. Device functionality and applications are discussed and range from power supplies, voltage regulators, small signal/power amplifiers, amplifier response analysis (Bode Plot) to operational amplifiers. (1.2)  
*Prerequisite:* MTH 122 and EET 175

*Course fee*

*Typically offered fall only*

### **EET 115 Electronic Laboratory Techniques (1-2) 2 Hours**

An introduction to electronic measurement techniques, the identification and testing of electronic components, and Ohm's law and power law. Lab safety concepts, proper use of basic laboratory equipment such as oscilloscopes, DMM, power supplies, frequency counter and signal generators are introduced. Additional topics include: soldering and desoldering of components, breadboarding, how to keep a lab notebook and schematic reading. The student will be expected to pursue and complete a laboratory project of his/her choice with the instructor's approval. (1.2)

*Corequisite:* EET 170

*Course fee*

*Typically offered fall and spring only*

### **EET 130 Introduction to Renewable Energy Sources (3-2) 4 Hours**

This course provides an overview of renewable (essentially carbon-free) energy sources with an emphasis on Solar, Wind and Geothermal technologies. Students will acquire an understanding of various renewable energy systems and their underlying physical and technological principles, economics, environmental impact and how these technologies can be integrated into an overall energy system. (1.2)

*Prerequisite:* MTH 102 or equivalent with a grade of C or better and College Reading and Writing Readiness

*Typically not offered every term*

### **EET 170 DC Circuit Fundamentals (1.5-1) 2 Hours**

Topics include definition of voltage, current, resistance, conductance, and power. Also includes Ohm's Law, Kirchhoff's Laws as applied to series, parallel and series-parallel circuits. Calculation of power dissipation, use of voltage and current dividers, recognition and use of Wheatstone Bridge circuits. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* MTH 117

*Course fee*

*Typically offered fall and spring only*

### **EET 173 DC Analysis-Network Theorems (1.5-1) 2 Hours**

Introduction to network theorems and solutions, to include Thevenin's Theorem, Norton's Theorem, Mesh analysis, Nodal analysis, Superposition and other analysis techniques. (1.2)

*Prerequisite:* EET 170

*Corequisite:* MTH 122

*Course fee*

*Typically offered fall and spring only*

### **EET 174 AC Fundamentals (1.5-1) 2 Hours**

Introduction to AC circuit fundamentals. Study of circuitry consisting of AC sources, resistors, inductors, capacitors and transformers. Course material covers, reactance, impedance, vectors, current and voltage phase relationships, apparent and reactive power, complex notation. Q, resonance and filters are discussed. (1.2)

*Prerequisite:* EET 170 and MTH 122

*Corequisite:* MTH 123

*Course fee*

*Typically offered fall and spring only*

### **EET 175 AC Analysis and Circuit Theorems (1.5-1) 2 Hours**

AC network theorems and solutions, to include Thevenin's Theorem, Norton's Theorem, Max Power Transfer Theorem, Mesh analysis, Nodal analysis, superposition and other analysis techniques. Series and parallel resonance will also be included with discussion of passive filter operation. EET 175 is a continuation of EET 174 for the Electrical Engineering Technology AAS degree. (1.2)

*Prerequisite:* EET 174

*Corequisite:* MTH 123

*Course fee*

*Typically offered fall and spring only*

### **EET 211 Advanced Solid State Electronics (3-2) 4 Hours**

This is a continuation of EET 113 with an emphasis on the development of frequency response characteristics of operational amplifiers, open and closed loop response, negative and positive feedback, active filters, oscillators/timers, voltage regulators, basic op-amp circuits, data conversion circuits and control circuits. (1.2)

*Prerequisite:* EET 113

*Course fee*

*Typically offered spring only*

### **EET 212 Electronic Communications Systems (2-3) 3 Hours**

Principles of operation and design of electronics equipment including radio fundamentals, radio receivers, transmitters, antennas and transmission of RF energy. Digital communications will be covered. (1.2)

*Prerequisite:* EET 113, EET 174 and EET 175

*Course fee*

*Typically not offered every term*

### **EET 216 Microprocessors I (3-2) 4 Hours**

Introductory course in microprocessors dealing with hardware and software. The Pic micro controller will be used as the target processor. Hardware configuration including CPU, Memory, I/O, and Assembly language programming with the PIC 16F84 instruction set will be studied. This course also provides a means to learn about embedded Microcontroller-based programming techniques through the use of Microchip integrated MPLAB environment. (1.2)

*Prerequisite:* EET 223 AND MCS 141 or CIT 134 or consent of instructor

*Course fee*

*Typically offered spring only*

**EET 223 Introduction to Digital Electronics (3-2) 4 Hours**  
 (Formerly EET 213) This course covers principles of operation, performance, and design of digital circuits and digital instrumentation. Number systems including binary; Boolean algebra and the application to digital logic; combinational and sequential circuits; digital logic application to electronic instrumentation; basic Hardware Description Language (VHDL) and lab work with CMOS & FPGAs (Field Programmable Gate Arrays) will be covered. (1.1)  
*Prerequisite:* MTH 122 or MTH 144 AND EET 115 (C or better) OR Department Consent  
*Course fee*  
*Typically offered fall and spring only*

**EET 230 Electrical Machinery (2-3) 3 Hours**  
 Principles of design and construction of many types of motors and generators including servos, synchros, motor and generator control circuits, and industrial application. Course oriented to troubleshooting and repair techniques.  
*Note:* ELC 114 is recommended. (1.2)  
*Prerequisite:* EET 170, EET 174 or ELC 172  
*Course fee*  
*Typically offered fall only*

**EET 299 Special Topics in Electrical/Electronics Engineering (Variable) 1-4 Hours**  
 This course will provide students with more information about specialized topics in areas of analog or digital electronics, telecommunications, industrial controls, system design software or related topics.  
*Note:* Topics will be identified for each section of the course. May be taken four times, but any topic only once for credit towards the degree. (1.2)  
*Prerequisite:* To be determined relative to topic  
*May be taken four times, but any topic only once*  
*Typically not offered every term*

## Electrical Technology (ELC)

Engineering, Math and Physical Sciences Division,  
 Room T302, (847) 543-2044

**ELC 113 Basic Instrumentation and Shop Practice (1-2) 2 Hours**  
 An introduction to electronic measurements, repair and construction techniques and the identification and testing of electronic components.  
*Note:* Recommended preparation concurrent enrollment in EET 170 and ELC 172 or equivalent knowledge. (1.2)  
*Course fee*  
*Typically not offered every term*

**ELC 114 Motor and Machine Controls (2-3) 3 Hours**  
 Describes control circuits and components used in industry with particular attention to motor controls. Material includes controller characteristics and applications.  
*Note:* Recommended preparation EET 170 and ELC 172 or equivalent knowledge. (1.2)  
*Course fee*  
*Typically not offered every term*

**ELC 171 Programmable Logic Controllers (2-2) 3 Hours**  
 In this course, students will learn what a Programmable Logic Controller is, how a PLC works, and how to install a PLC in an automated system. Students will also learn the basics of programming a PLC using a relay ladder logic and Boolean functions. Troubleshooting systems with PLC's will also be studied.  
*Note:* Recommended preparation ELT 170 and ELC 172 or equivalent knowledge. (1.2)  
*Course fee*  
*Typically offered fall and spring only*

**ELC 172 Applied AC Circuit Theory (1.5-1) 2 Hours**  
 Fundamentals of AC circuit theory and application. Includes topics of capacitance, inductance, time constants, reactance, RLC AC circuits, transformers, relays, filters and mathematics as required. ELC 172 is a continuation of EET 170 for the Electrical/Electronic Maintenance Certificate.  
*Note:* Recommended preparation EET 170 and MTH 114 or MTH 117 or equivalent knowledge. (1.2)  
*Course fee*  
*Typically offered fall and spring only*

**ELC 215 Power Transmission and Distribution (3-3) 4 Hours**  
*Course withdrawn effective Spring 2018.*  
 Methods of generating, controlling transmitting, and distributing electrical power and utilization of electrical power by industry.  
*Note:* Recommended preparation EET 170 and ELC 172 or equivalent knowledge. (1.2)  
*Course fee*  
*Typically not offered every term*

**ELC 271 Advanced Programmable Controls (2-3) 3 Hours**  
 This course will address application and interfacing aspects of programmable control not covered in the introductory course ELC 171. Topics included in this course cover information on data acquisition and data file manipulation, analog to digital and digital to analog interfacing, networking of PLC's, and touch panel interface operation. (1.2)  
*Prerequisite:* ELC 171 or Instructor Consent

**ELC 276 Electrical Industrial Safety (2-0) 2 Hours**  
 This course provides a study of the safety practices and procedures that are required in the electrical industry. The nature of electrical work places electricians in potentially harmful situations on a regular basis. Electricians must be aware of the proper safety precautions in order to avoid accidents which could lead to injury or even death. This course will include safety related to electrical shock, safety requirements in the use of power tools, safety in the working environment. (1.2)  
*Typically not offered every term*

## Electrician Apprenticeship (EAP)

Engineering, Math and Physical Sciences Division,  
 Room T302, (847) 543-2044

**EAP 111 Electrician Apprenticeship Work Experience I (0-4) 2 Hours**  
 This course provides a planned educational experience in the Electricians Apprenticeship program by placing the student in a supervised educational work experience. Specific learning objectives

## Course Information and Descriptions

agreed upon by the student and the students work supervisor shall be accomplished through “on the job” experience and training. This course is the first of a series of five work-based learning (apprenticeship) courses to be completed. The student will complete an EAP course in each of the five years of the apprenticeship.  
*Note:* Requirements: Admission into the Local IBEW 150 Apprenticeship Program. Job placement with a registered journeyman electrician (1.2)

### **EAP 112 Electrician Apprenticeship Work Experience II (0-4) 2 Hours**

This course provides a planned educational experience in the Electricians Apprenticeship program by placing the student in a supervised educational work experience. Specific learning objectives agreed upon by the student and the students work supervisor shall be accomplished through “on the job” experience and training. This course is the second in a series of five work-based learning (apprenticeship) courses to be completed. The student will complete an EAP course in each of the five years of the apprenticeship.  
*Note:* Requirements: Admission into the Local IBEW 150 Apprenticeship Program. Job placement with a registered journeyman electrician (1.2)

### **EAP 113 Electrician Apprenticeship Work Experience III (0-4) 2 Hours**

This course provides a planned educational experience in the Electricians Apprenticeship program by placing the student in a supervised educational work experience. Specific learning objectives agreed upon by the student and the students work supervisor shall be accomplished through “on the job” experience and training. This course is the third in a series of five work-based learning (apprenticeship) courses to be completed. The student will complete an EAP course in each of the five years of the apprenticeship.  
*Note:* Requirements: Admission into the Local IBEW 150 Apprenticeship Program. Job placement with a registered journeyman electrician (1.2)

### **EAP 114 Electrician Apprenticeship Work Experience IV (0-4) 2 Hours**

This course provides a planned educational experience in the Electricians Apprenticeship program by placing the student in a supervised educational work experience. Specific learning objectives agreed upon by the student and the students work supervisor shall be accomplished through “on the job” experience and training. This course is the fourth in a series of five work-based learning (apprenticeship) courses to be completed. The student will complete an EAP course in each of the five years of the apprenticeship.  
*Note:* Requirements: Admission into the Local IBEW 150 Apprenticeship Program. Job placement with a registered journeyman electrician (1.2)

### **EAP 115 Electrician Apprenticeship Work Experience V (0-4) 2 Hours**

This course provides a planned educational experience in the Electricians Apprenticeship program by placing the student in a supervised educational work experience. Specific learning objectives agreed upon by the student and the students work supervisor shall be accomplished through “on the job” experience and training. This course is the fifth in a series of five work-based learning (apprenticeship) courses to be completed. The student will complete an EAP course in each of the five years of the apprenticeship.  
*Note:* Requirements: Admission into the Local IBEW 150 Apprenticeship Program. Job placement with a registered journeyman electrician (1.2)

## Electronic Information Technology (EIT)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

### **EIT 110 Topics in Mathematics for Computer and Electronics Technicians (3-0) 3 Hours**

Mathematics topics are studied which have direct application in the fields in electronics and computer technology. Topics include mathematics concepts required to understand and analyze electronics and computer problems. (1.2)  
*Typically not offered every term*

### **EIT 111 Digital and Network Fundamentals (3-2) 4 Hours**

This is an introductory course in digital electronic concepts and networking fundamentals. The course will introduce basic Boolean Algebra including masking concepts. LAN network fundamentals will be studied including peer to peer networks using TCP/IP protocols and Ethernet media. Laboratories will include experiments in logic and small networks and peer to peer networks will be implemented.  
*Note:* Completion of EET 170 is recommended, not required. (1.2)  
*Course fee*  
*Typically not offered every term*

### **EIT 116 Fiber Optic Fundamentals (2.5-1) 3 Hours**

This course is an introduction to the theory and application of fiber optics as a means of data transmission. This course will cover fiber optic cabling, connectors, splices and tools, power budgets, fiber optic design, installation and testing, and broadband applications. Students completing the course will have a solid foundation in fiber optic networking and will also be prepared to attempt industry supported examinations allowing them to become Certified Fiber Optic Technicians. (1.2)  
*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness  
*Typically not offered every term*

### **EIT 210 Data and Network Communications (3-2) 4 Hours**

This course will deal with the fundamental of data communications in network environments. Baseband transmission as well as encoded data transfer methods will be studied. Protocols will be investigated in detail including Ethernet and Sonet at the data transmission level. Frequency spectrum and bandwidth issues will be studied. Routers and routing will be introduced. Laboratories will deal with communication hardware and network interconnections.  
*Note:* Completion of EIT 111 is recommended, not required. (1.2)  
*Course fee*  
*Typically not offered every term*

### **EIT 230 Secure Wireless Networking (2-2) 3 Hours**

This course will cover the basics of planning and implementing a wireless network, with special focus on using adequate data security techniques. Gateway security, including building gateways and firewalls, and authentication and encryption methods for wireless networks will be explored.  
*Note:* Completion of EIT 111 and ELC 172 are recommended, not required. (1.2)  
*Course fee*  
*Typically not offered every term*

**EIT 250 Wireless Data Communications (2-2) 3 Hours**

This course will deal with issues encountered with data communications in a wireless networked environment. Radio frequency technologies will be studied, along with data transmission, protocols, hardware and software installation and support, wireless device applications and security.

*Note:* Technologies might include: WiMax, Mesh, EVDO, CDMA and others. (1.2)

*Prerequisite:* EIT 230 (C or better)

*Recommended:* EIT 210 (C or better)

*Typically not offered every term*

## Electronics Engineering Technology (ELT)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

**ELT 111 Electronic Drafting (1-3) 2 Hours**

Drawing of electronic components and wiring diagrams, with emphasis on national standards and codes. Pspice schematic capture and PC board software will be introduced. (1.2)

*Course fee*

*Typically not offered every term*

**ELT 116 Technical Programming (3-0) 3 Hours**

***Course withdrawn effective Spring 2018.***

This course will be taught using C++ as the programming language. Examples and programming problems will be drawn from the general body of technical problems.

*Note:* Recommended preparation MTH 117 or MTH 122 or equivalent knowledge. (1.2)

*Course fee*

*Typically not offered every term*

**ELT 117 Industrial Digital Electronics I (2-2) 3 Hours**

An introduction to digital electronics with an emphasis on analysis and troubleshooting aspects of digital electronics. It is a part of the one year certificate maintenance program.

*Note:* Recommended preparation high school algebra or concurrent enrollment in MTH 114 and EET 170 or equivalent knowledge. (1.2)

*Course fee*

*Typically not offered every term*

**ELT 118 Industrial Digital Electronics II (2-2) 3 Hours**

***Course withdrawn effective Spring 2018.***

Continuation of ELT 117 Industrial Digital Electronics I. Emphasis will be on the troubleshooting aspects of digital electronics. This course is a part of the one-year certificate maintenance program.

*Note:* Recommended preparation EET 170, ELT 172, ELT 117 or equivalent. (1.2)

*Course fee*

*Typically not offered every term*

**ELT 151 PC Hardware Fundamentals (2-2) 3 Hours**

This course will cover the basic components of a PC, including motherboards, memory, disk drives, cases and power supplies. Computers will be disassembled, reassembled and configured to operate.

*Note:* Recommended preparation CIT 120 and concurrent enrollment in EET 170 or equivalent knowledge. (1.2)

*Course fee*

*Typically offered fall and spring only*

**ELT 152 PC Peripherals and Troubleshooting (2-2) 3 Hours**

This course will cover the common peripheral components of a PC, including modems, Sound cards, network interface cards (NIC), and printers. Additionally, troubleshooting of hardware components will be presented, including diagnostic hardware and software.

Preventative maintenance issues will be explored. (1.2)

*Prerequisite:* ELT 151

*Course fee*

*Typically not offered every term*

**ELT 171 Industrial Control Systems (2-2) 3 Hours**

***Course withdrawn effective Spring 2018.***

A study of the electrical/electronic systems used in the control of machinery and processes in industry, and the electrical/electronic systems used to measure, monitor and control the factors involved in the manufacturing process. Emphasis will be on operation and troubleshooting of the electronics involved. Students will gain experience using instrumentation and measuring devices that simulate control situations.

*Note:* Recommended preparation EET 170 and ELC 172 or equivalent knowledge. (1.2)

*Course fee*

*Typically not offered every term*

**ELT 172 Applied Communications Circuits (2-2) 3 Hours**

A survey of various communications systems. AM/FM radio systems as well as video communications systems will be included. The troubleshooting aspects of the various circuits will be emphasized.

*Note:* Recommended preparation EET 170 and ELC 172 or equivalent knowledge. (1.2)

*Course fee*

*Typically not offered every term*

**ELT 173 Applied Analog Circuits (2-2) 3 Hours**

***Course withdrawn effective Spring 2018.***

Introduction to the theory of operation of electronic devices used in amplifiers, oscillators, power supplies and control circuits.

*Note:* Recommended preparation EET 170, ELC 172 and ELC 113 or equivalent knowledge. (1.2)

*Course fee*

*Typically not offered every term*

**ELT 214 Microwave Systems and Measurements (2-3) 3 Hours**

***Course withdrawn effective Spring 2018.***

Continuation of EET 212 Electronic Communications Systems.

Systems of electronic application other than radio communication with emphasis on microwave circuitry, devices, and systems including microwave power, frequency, etc. with emphasis on use of specialized microwave test equipment.

*Note:* Recommended preparation EET 211 and MTH 211 or equivalent knowledge. (1.2)

*Course fee*

*Typically not offered every term*

**ELT 217 Microprocessors II (2-2) 3 Hours**

Second course in microprocessor electronics and follows EET 216 Microprocessors I. Intended to be part of the Associates in Applied Science degree in Electronics. 80xxx series of microprocessors are covered with introductions to assembly language and C. Concentration is on control applications.

*Note:* Recommended preparation EET 216 or equivalent knowledge. (1.2)

*Course fee*

*Typically not offered every term*

## Course Information and Descriptions

### **ELT 271 Circuit Analysis Computer Techniques (3-0) 3 Hours** *Course withdrawn effective Spring 2018.*

Passive and Active circuits will be analyzed using the evaluation version of Pspice. Circuit behavior will be studied and in some cases circuits will be modified to meet certain design criteria. DC, AC and transient analysis will be performed as well as spectral analysis using the Pspice FFT. This course is intended for presentation via Internet. Required preparation: AC and DC circuit courses and one calculus course. (1.2)

*Typically not offered every term*

### **ELT 272 Circuit Analysis Techniques (3-0) 3 Hours** *Course withdrawn effective Spring 2018.*

This course is intended to introduce the student to the use of calculus and transform techniques to circuit analysis. Solutions to first order equations will be done with calculus. Laplace transforms will be introduced and solutions to first and second order circuit will be covered. Circuit solutions using phasor techniques will be reviewed and Pspice will be used to support the class. This course is intended for Internet presentation. Recommended preparation: AC, DC circuit courses and one devices course including transistors. (1.2)

*Typically not offered every term*

## Emergency Medical Technology (EMT)

Biology and Health Sciences Division,  
Room B213, (847) 543-2042

### **EMT 111 Emergency Medical Technician-Basic (5-4) 7 Hours**

This course prepares students to take the licensure examination to become an EMT-B, including classroom instruction, practical demonstrations and testing, and clinical experience. The course is offered at associated hospitals and fire departments in Lake County. (1.2)

*Prerequisite:* High school diploma or GED AND College Reading and Writing Readiness AND Basic Algebra Readiness.

*Other:* 18 years of age or older (at the time of licensure testing)  
*Course fee*

### **EMT 114 Paramedic Clinical Practicum (0-16) 3 Hours**

This course consists of approximately 250 hours of supervised, in-hospital, clinical experience and is offered at associated hospitals in Lake County. (1.2)

*Corequisites:* EMT 131 and EMT 115

### **EMT 115 Paramedic Field Experience Practicum (0-16) 3 Hours**

This course prepares students to take the licensing examination to become an EMT- Paramedic. The course consists of approximately 250 hours of supervised, ambulance, pre-hospital patient care experience which includes basic and advanced life support, observation and participation in patient assessment, management, immobilization, transport with ongoing assessment and treatment, and communication skills. Students are required to participate in a specific number of calls and/or hours on duty, depending on the agency, which may require more than the listed number of clinic hours. The course is offered at associated hospitals in Lake County. (1.2)

*Corequisites:* EMT 131 and EMT 114

### **EMT 131 Introduction to Advanced Pre-hospital Care (3.5-1) 4 Hours**

This is the first of five courses in Advanced Pre-hospital Care which prepare students to take the licensure examination to become EMT-Paramedics. Each course consists of classroom instruction and practical skills demonstration and testing. This introductory course will address the fundamentals of paramedic practice, including pathophysiology, pharmacology, medication administration and advanced airway management. The course is offered at associated hospitals in Lake County. This course is an approved program by the IDPH under the guidelines of the U.S. Department of Transportation. (1.2)

*Prerequisite:* BIO 111 OR BIO 124 OR BIO 244 and 245 (all C or better) and current Illinois licensure as an EMT-B or EMT-I

*Corequisite:* EMT 114 and 115 & current CPR certification (Health Care Provider Level: American Heart Assc or American Red Cross)

### **EMT 132 Patient Assessment (1.5-1) 2 Hours**

This is the second of five courses in Advanced Pre-hospital Care which prepare students to take the licensure examination to become EMT-Paramedics. Each course consists of classroom instruction and practical skills demonstration and testing. This course builds on assessment skills of the basic EMT with special emphasis on advanced patient assessment at the scene. It includes classroom instruction and practical skills demonstration and testing. The course is offered at associated hospitals in Lake County. This course is an approved program by the IDPH under the guidelines of the U.S. Department of Transportation. (1.2)

*Corequisite:* EMT 131

### **EMT 133 Medical Emergencies (4.5-1) 5 Hours**

This is the third of five courses in Advanced Pre-hospital Care which prepare students to take the licensure examination to become EMT-Paramedics. Each course consists of classroom instruction and practical skills demonstration and testing. This course will teach the student how to identify and treat many of the medical emergencies likely to be encountered in the pre-hospital setting, including topics in pulmonology, cardiology, infectious diseases, and behavioral disorders. It includes classroom instruction and practical skills demonstration and testing. The course is offered at associated hospitals in Lake County. This course is an approved program by the IDPH under the guidelines of the U.S. Department of Transportation. (1.2)

*Prerequisite:* EMT 132 (C or better)

### **EMT 134 Trauma Emergencies (2.5-1) 3 Hours**

This is the fourth of five courses in Advanced Pre-hospital Care which prepare students to take the licensure examination to become EMT-Paramedics. Each course consists of classroom instruction and practical skills demonstration and testing. This course details the anatomy, physiology, and pathophysiology of trauma. It incorporates advanced pre-hospital care from the mechanism of injury analysis to shock/trauma resuscitation. The course is offered at associated hospitals in Lake County. This course is an approved program by the IDPH under the guidelines of the U.S. Department of Transportation. (1.2)

*Corequisite:* EMT 133

### **EMT 135 Special Considerations and Operations (5.5-1) 6 Hours**

This is the fifth of five courses in Advanced Pre-hospital Care which prepare students to take the licensure examination to become EMT-Paramedics. Each course consists of classroom instruction and practical skills demonstration and testing. This course includes neonatal, pediatric, geriatric, home health care and specially

challenged patients, and incident command, ambulance service, rescue, hazardous material, and crime scene operations. It includes classroom instruction and practical skills demonstration and testing. The course is offered at associated hospitals in Lake County. This course is an approved program by the IDPH under the guidelines of the U.S. Department of Transportation. (1.2)

*Corequisite:* EMT 134

## Emergency and Disaster Management (EDM)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### **EDM 111 Introduction to Emergency Management (3-0) 3 Hours**

This course introduces students to the field of emergency management. Students will be exposed to the terminology and definitions used in emergency and disaster management. Students will examine legal requirements, responsibilities, and laws pertaining to emergency management. An introduction to the incident command system is included. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **EDM 212 Terrorism and Homeland Security (3-0) 3 Hours**

This course focuses on helping the student understand the issues relating to modern day terrorism and how government responds to such events. This course will also introduce students to disasters which often impact our country. Emphasis will be placed on helping students understand the concept of unified response and how multiple, diverse organizations will interact to respond and mitigate such events. Additional emphasis will involve an in-depth understanding of the National Incident Management System (NIMS) and how this system is used by emergency responders. Student groups will work to plan and solve issues related to disaster events of varying complexity. (1.2)

*Prerequisite:* College Reading and Writing Readiness

## Engineering (EGR)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

### **EGR 115 Applied Statics for Technology (3-0) 3 Hours**

This course studies the analysis of forces on structural and mechanical systems. It covers resultants of force systems; algebraic and graphical conditions of equilibrium of force systems; analysis of forces acting on members of frames, trusses, etc.; forces due to friction and properties of areas. This course is appropriate for students in engineering technology AAS degree programs.

*Note:* Students may not receive credit towards graduation for both EGR 115 and EGR 216. (1.2)

*Prerequisite:* MTH 117 (C or better)

*Corequisite:* PHY 121

### **EGR 120 Introduction to Engineering (5-1) 1 Hour**

This introductory, freshman-level Engineering Transfer course introduces students to the different fields of engineering using case studies and guest speakers from the various engineering disciplines. Students are prepared for successful academic and professional careers by learning about the design process, teamwork, engineering ethics, academic and career planning, applying for internships, appropriate workplace behavior, study skills, and time management. (1.1)

*Prerequisite:* MTH 108 (C or better) AND College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

### **EGR 121 Engineering Design Graphics (2-3) 3 Hours**

This is an introductory course in the Engineering Transfer and Engineering Technology curriculum. The course emphasizes the use of graphical communication for engineers, designers and drafters to communicate technical ideas in the context of the engineering design process used in industry. Topics include technical sketching, multiview and pictorial drawings, section views, auxiliary views, dimensioning and tolerancing, the design process, 2D CAD, and 3D parametric solid modeling. A design project is included.

*Note:* Previous experience in 2D CAD and 3D solid modeling software is recommended but not required for this course. (1.1)

*Prerequisite:* MTH 104 or MTH 115 or MTH 117 (all C or better) or one year of High School Geometry or Consent of Instructor

*Course fee*

**IAI: EGR 941**

### **EGR 125 Engineering Statics (3-0) 3 Hours**

This course covers analysis of static structures for engineering transfer students. Topics include particle statics, general principles and force vectors, rigid body equilibrium, moments of inertia, distributed forces and centroids, analysis of structures, virtual work, and friction. Theory is applied to analyze engineering structures such as trusses, frames, and machines. This course is designed for students interested in the Engineering Transfer curriculum.

*Note:* Students may not receive credit towards graduation for both EGR 125 and EGR 221. (1.1)

*Prerequisite:* MTH 145 (C or better)

*Corequisite:* PHY 123

**IAI: EGR 942**

### **EGR 215 Mechanics of Materials for Technology (2-2) 3 Hours**

This course covers mechanical and physical properties of materials appropriate to the design of engineered structures including frames, machines and buildings. It includes analysis and design of structural joints, torsional shafts, beams and columns and analysis of structures with combined loading. This course is appropriate for students in engineering technology AAS programs.

*Note:* Students may not receive credit towards graduation for both EGR 215 and EGR 216. (1.2)

*Prerequisite:* EGR 115 (C or better)

*Course fee*

### **EGR 216 Statics and Mechanics of Materials for Technology (5-1) 5 Hours**

Analysis of forces on structural and mechanical systems: resultants of force systems; algebraic and graphical conditions of equilibrium of force systems; analysis of forces acting on members of frames, trusses, etc.; forces due to friction and properties of areas.

Mechanical and physical properties of materials such as stress, strain, and modulus of elasticity appropriate to the design of

## Course Information and Descriptions

engineered structures including frames, machines and buildings. Analysis and design of structural joints, torsional shafts, beams and columns. Analysis of structures with combined loading. Includes laboratory experiments/demonstrations.

*Note:* Students may not receive credit towards graduation for EGR 216 and EGR 115 or EGR 215. (1.2)

*Prerequisite:* PHY 121 and MTH 117

*Typically offered spring only*

### **EGR 222 Engineering Mechanics of Materials (3-0) 3 Hours**

This course is an engineering study of the elementary mechanics of deformable bodies/strength of materials. The course includes analysis of: the elastic and inelastic relationships between external forces acting on engineering structures and the stresses and deformations produced; tension and compression members; members subjected to torsion and to bending; buckling (columns) combined stresses; repeated loads (fatigue); energy loads and impact; and influences of the properties of materials. This course is designed for Engineering Transfer students. (1.1)

*Prerequisite:* EGR 125 or EGR 221 (both C or better)

**IAI: EGR 945**

### **EGR 225 Engineering Dynamics (3-0) 3 Hours**

This course introduces students to particle kinematics (rectilinear and curvilinear); Newton's laws; energy, work, and momentum methods; planar dynamics and rigid bodies; rigid body kinematics; impulse and momentum; and vibrations. Application to engineering structures and mechanical systems emphasized. This course is designed for students interested in the Engineering Transfer curriculum.

*Note:* Students may not receive credit towards graduation for both EGR 225 and EGR 221. (1.1)

*Prerequisite:* EGR 125 (C or better) and PHY 123 (C or better)

*Corequisite:* MTH 246

**IAI: EGR 943**

### **EGR 260 Introduction to Circuit Analysis (3-2) 4 Hours**

This course will introduce circuit analysis at the engineering level. It will include the standard analysis tools such as nodal analysis, mesh analysis, Thevenin's and Norton's theorems and superposition. Impedances are defined and AC steady state analysis is carried out as well as analysis of transients in simple circuits. LaPlace transform analysis is introduced as are bode plots and transfer functions. The course will also cover three phase circuits and transformers. Operational amplifiers are also introduced.

*Note:* For Electrical/Computer Engineering majors interested in Digital Circuits, see EET 223 (Introduction to Digital Electronics). (1.1)

*Prerequisite:* MTH 146 (C or better)

*Corequisite:* PHY 124 and MTH 246 or MTH 227

*Typically offered spring only*

**IAI: EGR 931L**

### **EGR 299 Special Topics in Engineering (Variable) 1-3 Hours**

This course addresses the in-depth study of special topics in engineering that do not have specific courses in the catalog. Course content will vary depending on the topic being studied. Topics may be drawn from any of the various engineering disciplines, including mechanical, electrical, civil, computer, biomedical, chemical, etc.

This course is repeatable up to three times, any topic only once, for a maximum of 6 hours toward AES degree completion. (1.2)

*May be taken four times for credit toward degree*

## English (ENG)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

### **ENG 100 Success in Writing and Reading (1-0) 1 Hour**

This course is designed for students who have not met the College Reading and Writing Readiness prerequisite, but whose academic proficiency test scores indicate that they are close to that achievement. Each section of English 100 is linked with a section of English 121 and the two courses are taught by the same instructor. In this class, students will work on developing, revising, and editing papers assigned in their English 121 class and on strategies for reading challenging course texts. (1.4)

*Corequisite:* ENG 121 and Department Consent

### **ENG 104 Individual Topics in Writing and Reading (1-0) 1 Hour**

English 104 is a module designed to help students develop their competencies in writing and/or reading. The instruction is self-paced and self-scheduled. Each student, with an assigned tutor and under the supervision of the writing Center Coordinator, will design an individualized program of work, which will consist of three to five "target areas." Working with a tutor, students will write three to five short papers and work through various specifically focused exercises and activities related to the target area that they have chosen. Students must attend at least 12 conferences with a tutor. For evaluation, students will submit a portfolio of their work, including a writing assignment reflecting upon their experiences and progress in the course. (1.4)

### **ENG 108 Strategic Reading and Writing I (6-0) 6 Hours**

This developmental course is designed to provide time-intensive experience with critical reading, writing, and thinking skills to prepare for college-level coursework. (1.4)

*Prerequisite:* APT score of 80 or higher OR ELI 103 and ELI 104 (both C or better) OR ELI 110 OR College Reading and Writing Readiness

### **ENG 109 Strategic Reading and Writing II (3-0) 3 Hours**

This developmental course is designed to provide experience with critical reading, writing, thinking, and research skills to prepare for college-level coursework. (1.4)

*Prerequisite:* APT score of 122 or higher OR ENG 108/ELI 108 (C or better) OR ELI 103 and ELI 104 (both B or better) OR ELI 110 (C or better) OR College Reading and Writing Readiness

### **ENG 113 Technical Communication Practicum (3-0) 3 Hours**

Technical Communication Practicum provides work simulation experience in a variety of writing areas according to the student's major occupational area. The purpose of the course is to allow development and evaluation of writing assignments taken from the student's supervised experiences to on-the-job simulation with the responsibilities of the technical writer. (1.2)

*Prerequisite:* ENG 126

**ENG 120 Technical Composition I (3-0) 3 Hours**

A beginning college level writing course. Emphasis is on writing with conciseness, precision and objectivity. Specifically covered are business letters, memoranda, periodic reports, descriptions of mechanisms and processes, instructions and proposals. A variety of business and technical communication projects are completed, all based on practical situations in the students' fields of study. Graphic elements/unit on publishing technology. (1.2)

*Prerequisite:* College Reading and Writing Readiness

**ENG 121 English Composition I (3-0) 3 Hours**

This course is designed to help students develop their competence in college-level writing and in the analysis of texts so they can enter the dialogue of the academic community. This course includes the analysis and practice of argument and the use of critical thinking to read, analyze, and produce college-level texts. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: C1 900**

**ENG 122 English Composition II (3-0) 3 Hours**

This course furthers the work done in English Composition I by providing students more experience as academic writers, readers, researchers and critical thinkers. To help students construct their own meaning while engaging with the texts of others, they will develop the ability to collect, evaluate, and incorporate varied sources in thoughtfully-written analyses and arguments. Students' work should demonstrate the ability to position themselves within the context of academic and societal conversations using a variety of texts, which may include literature, arguments on various issues, news articles, films, advertisements, and websites. (1.1)

*Prerequisite:* ENG 121 (C or better)

**IAI: C1 901R**

**ENG 123 Mass Communications (3-0) 3 Hours**

Mass Communications is designed to provide an overview of the history, nature, functions and responsibilities of the mass communications media from a global perspective with an emphasis on their continuous and evolving role in American society. The course introduces students to the different but converging media, the information they transmit, the entertainment they provide, the markets they seek and the audiences they serve. Students will explore the ethical, legal and business considerations that journalists, artists, management and ownership face in American society. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: MC 911**

**ENG 124 Newswriting I (3-0) 3 Hours**

This course is designed to introduce students to the fundamentals of gathering, analyzing, organizing, writing, and editing news for a mass audience reached by different but converging media. Students will be introduced to the techniques of reporting, including direct observation and interviewing as well as the use of online and hard-copy documents. Students also will develop journalistic reporting and writing skills transferable to a variety of platforms, with an emphasis on verifying information as well as writing to meet professional deadlines. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: MC 919**

**ENG 126 Advanced Composition: Scientific and Technical Communications (3-0) 3 Hours**

This course is a transferable advanced composition course stressing the writing process for students in scientific and technical majors. It covers writing concisely, precisely, and clearly for a variety of purposes and audiences. It includes a multi-source research paper, writing scientific and technical reports, writing abstracts and summaries of magazine articles, writing letters, proposals, resumes, instructions, and descriptions. Students will read, write, and think critically about a variety of issues in the scientific and technical discourse communities including the environment and the ethics of new technology. (1.1)

*Prerequisite:* ENG 120 or ENG 121(either C or better)

**IAI: C1 901R**

**ENG 127 Introduction to General Linguistics (3-0) 3 Hours**

This introductory course will explore the origins of language, its internal structure and its function. This course will analyze language in terms of its phonology, morphology, grammar, syntax, semantics and pragmatics. In addition, the course will examine the application of linguistic theory to second language learning and teaching. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**ENG 128 Linguistics and Society (3-0) 3 Hours**

This course will introduce students to some of the important principles of linguistics, as well as to the complex nature of language acquisition and use within any given society. The course will discuss some of the unique characteristics of human languages, the various theories of first and second language acquisition, the interrelation between language and gender and language and ethnicity and the social and political ramifications of different language attitudes; in addition, the course will examine the communicative and social significance of different Speech Acts. (1.1)

*Corequisite:* ELI 110 or College Reading and Writing Readiness

**ENG 129 Women in Literature (3-0) 3 Hours**

This course introduces students to the wealth of literature by and/or about women. Discussion of readings, films and other media enables students to analyze the portrayal of women in literature and to trace the historical development of writing by women. It will explore the significant historical conditions and contributions of this underrepresented group within the Western World. (1.1)

*Prerequisite:* ENG120 or ENG 121 (C or better)

*Fulfills the CLC I/M Education Requirement.*

**IAI: H3 911D**

**ENG 137 Document Design in Technical Writing (3-0) 3 Hours**

This course will introduce the student to the elementary principles of document design in technical writing. In addition to reading about these principles, they will have the opportunity to read articles written by experts in the field that will apply to these principles. By the end of the course, the student will be able to design and write an instructional document for a general audience and justify the design they chose. (1.2)

*Prerequisite:* College Reading and Writing Readiness

**ENG 220 Introduction to Scripts for Screen (3-0) 3 Hours**

This course will introduce students to the concepts, structure and format needed to develop reading scripts for TV and film. Students will complete several invention and writing exercises in this screenwriting genre. They will analyze professional and student scripts. The course emphasizes creative expression and in-class workshop methodology. (1.1)

*Prerequisite:* ENG 121 (C or better)

## Course Information and Descriptions

- ENG 222 Creative Writing (3-0) 3 Hours**  
This course is designed to introduce students to a variety of approaches, writing techniques and stages of the crafting process in the genres of prose fiction, creative nonfiction and poetry. Students will complete writing exercises in these genres. They will analyze professional prose and poetry. The course emphasizes creative expression and critique of student writing. (1.1)  
*Prerequisite:* College Reading and Writing Readiness
- ENG 223 Early American Literature (3-0) 3 Hours**  
In this course, students will read and study selected writings of a number of major American writers from the colonial period up to 1900. Students will explore this literature in light of its social, historical, philosophical, aesthetic, and critical contexts. They also will examine the role of this literature in shaping American culture and defining the national identity. (1.1)  
*Prerequisite:* ENG 120 or ENG 121(either C or better)  
**IAI: H3 914**
- ENG 224 Creative Writing II (3-0) 3 Hours**  
This course is designed to focus on the creative process in one of three specific genres - prose fiction, prose creative nonfiction or poetry. The course will emphasize the creative process and the ability to critique and analyze texts in the topic genre in a workshop format. Class sessions will use the discussion of student and professional writing as the point of departure for an in-depth study of the topic genre. Individual conferences will supplement lectures and workshops to afford students a detailed response to their writing. (1.1)  
*Prerequisite:* ENG 121 (C or better)
- ENG 225 Survey of British Literature I (3-0) 3 Hours**  
This course introduces students to the authors and texts that have greatly influenced the literature of English speakers. From the first English epic to the poems, prose, and drama of the Eighteenth Century, the works covered reflect the major artistic developments of Pre-Romantic British literature and provide a background to modern writing in the English language. (1.1)  
*Prerequisite:* ENG120 or ENG 121 (C or better)  
**IAI: H3 912**
- ENG 226 Survey of British Literature II (3-0) 3 Hours**  
This course introduces students to British and Anglophone literatures from the Romantic, Victorian, Modern, and Postmodern periods. Students will explore the philosophical, social, aesthetic, and critical contexts of selected literature from the nineteenth, twentieth, and twenty-first centuries.  
*Note:* ENG 225 and 226 are independent courses. ENG 225 is not a prerequisite for ENG 226. (1.1)  
*Prerequisite:* ENG120 or ENG 121 (C or better)  
**IAI: H3 913**
- ENG 227 Introduction to Shakespeare (3-0) 3 Hours**  
Introduction to Shakespeare offers an examination of the writer's works and their historical and literary background through readings and discussions of selected comedies, histories and tragedies. Videotapes of performances will be shown in class. (1.1)  
*Prerequisite:* ENG120 or ENG 121 (C or better)  
**IAI: H3 905**
- ENG 228 World Literature (3-0) 3 Hours**  
This course examines representative writers of European, Asian, African, Middle Eastern, and Latin American literature. It surveys the classics and the influential works from societies around the world, their periods and movements from ancient times to the present. It will introduce the study of the significant conditions and contributions of these underrepresented groups. Omitted or represented sparingly are British and North American writers, since other courses focus on these authors. (1.1)  
*Prerequisite:* ENG120 or ENG 121 (C or better)  
*Fulfills the CLC I/M Education Requirement.*  
**IAI: H3 906**
- ENG 229 American Literature: 20<sup>th</sup> Century to Present (3-0) 3 Hours**  
This course introduces students to American literature in the 20<sup>th</sup> and 21<sup>st</sup> centuries and is designed to acquaint them with selected major writers of prose fiction, nonfiction, poetry, and drama. Students will explore this literature in light of its social, historical, philosophical, aesthetic, and critical contexts. They also will examine the role of this literature in shaping American culture and defining the national identity. (1.1)  
*Prerequisite:* ENG 120 or ENG 121(either C or better)  
**IAI: H3 915**
- ENG 241 Introduction to Poetry (3-0) 3 Hours**  
The course is designed to introduce students to a wide variety of English and American poetry, both traditional and modern. Emphasis will be on the relationship between meaning and form in individual poems, and class discussion will allow for student analysis, interpretation and critical evaluation. (1.1)  
*Prerequisite:* ENG 120 or ENG 121(either C or better)  
**IAI: H3 903**
- ENG 243 Introduction to Fiction (3-0) 3 Hours**  
The course is designed to introduce students to a wide variety of English, American, and Continental short stories, both traditional and modern. At least two longer short stories will be read, and at least one novel will be selected later in the course. Emphasis will be on the relationship between meaning and form in individual stories and the novel, and class discussion will allow for student analysis, interpretation and critical evaluation. (1.1)  
*Prerequisite:* ENG 120 or ENG 121(either C or better)  
**IAI: H3901**
- ENG 244 Mythology and Fairy Tales (3-0) 3 Hours**  
This course introduces students to the study of myths, legends, and fairy tales from various cultures. Students will consider Greek, Norse, and Hindu mythology as well as Grimm's fairy tales. The lasting power and influence of mythological themes and archetypal symbolism will be explored. (1.1)  
*Prerequisite:* ENG120 or ENG 121 (C or better)  
*Fulfills the CLC I/M Education Requirement.*  
**IAI: H9 901**
- ENG 246 Latin American Writers (3-0) 3 Hours**  
This course introduces students to significant Latin American writers. Drawing upon poetry, short fiction, novels and memoirs in English, the course will present and discuss the significant conditions and contributions of people of this underrepresented culture. The assigned readings will be in English and will exemplify trends in Latin American literature. (1.1)  
*Prerequisite:* ENG120 or ENG 121 (C or better)  
*Fulfills the CLC I/M Education Requirement.*  
**IAI: H3 908N**

**ENG 247 International Women Writers (3-0) 3 Hours**

This course introduces students to the literary contributions of women writers outside of the United States, Britain, and Europe. Modern novels and stories, ancient to modern poems, and other media will give students windows to view the concerns, triumphs, dreams, politics, and family lives of women in international cultures. This course will introduce the study of the significant conditions and contributions of this underrepresented group. (1.1)

*Prerequisite:* ENG120 or ENG 121 (C or better)

*Fulfills the CLC I/M Education Requirement.*

**IAI: H3 911D**

**ENG 249 Children's Literature (3-0) 3 Hours**

This course introduces students to significant works, authors and trends in literature written for children and young adults. Emphasis will be placed on identifying various literary genres, developing criteria for evaluation of texts as well as exploring multicultural works. (1.1)

*Prerequisite:* ENG120 or ENG 121 (C or better)

**IAI: H3 918**

**ENG 260 Introduction to Writing Center Theory and Practice (3-0) 3 Hours**

This course is designed to introduce student tutors to the fundamental issues of theory and practice underlying writing center work. Topics will include practical strategies and techniques for effective tutoring in a variety of situations and with a diversity of writers as well as theoretical issues involving language, literacy, and difference. (1.1)

*Prerequisite:* ENG 121

**ENG 261 Methods of Teaching English Language Learners (ELLs) (3-0) 3 Hours**

This course will discuss approaches to teaching English Language Learners (ELLs). Techniques for needs assessment, syllabus design, selection of course materials and assessment will be introduced. Current methods of teaching academic content in English to ELLs will also be presented. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**ENG 262 Theories of Teaching ELLs and Bilingual Education (3-0) 3 Hours**

This course will introduce the prominent theories of second language acquisition and teaching with a special emphasis on the instructional models for teaching of English Language Learners (ELLs). In addition, the course will discuss the relationship between theory and practice and the relevance of theory to the language classroom. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**ENG 263 Early American Minority Writers (3-0) 3 Hours**

This course introduces students to the wealth of literature contributed by minority writers before 1920. For this course minority will be defined as groups who have not traditionally been represented in the American Literary Canon. Such groups include, but shall not be limited to, African Americans, American Indians, Asian Americans, Hispanic/Latino Americans, working class Americans, and gay/lesbian Americans. This course will explore the significant historical conditions and contributions of these underrepresented groups within the United States. All forms of literature will be covered--folktales, poetry, short stories, novels, plays, autobiographies, memoirs, and oral forms. (1.1)

*Prerequisite:* ENG120 or ENG 121 (C or better)

*Fulfills the CLC I/M Education Requirement.*

**ENG 264 Modern American Minority Writers (3-0) 3 Hours**

This course introduces students to the wealth of literature contributed by minority writers after 1920. For this course, minority will be defined as groups who have not traditionally been represented in the American Literary Canon. Such groups include, but shall not be limited to, African Americans, American Indians, Asian Americans, Hispanic/Latino Americans, working class Americans, and gay/lesbian Americans. This course will explore the significant historical conditions and contributions of these underrepresented groups within the United States. All forms of literature will be covered--folktales, poetry, short stories, novels, plays, autobiographies, memoirs, and oral forms. (1.1)

*Prerequisite:* ENG120 or ENG 121 (C or better)

*Fulfills the CLC I/M Education Requirement.*

**ENG 265 Teaching Grammar to ELLs (3-0) 3 Hours**

This course will begin with a brief historical perspective of transformational, structural and traditional methodologies used in teaching English Language Learners (ELLs). In addition, the course will focus on a descriptive analysis of English and some of the nuances of English grammar. Finally, the course will consider the role of grammar instruction in the English language classroom. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**ENG 266 Professional Communication (3-0) 3 Hours**

Professional Communication is a sophomore-level course designed for students who have completed their composition requirements and are interested in furthering their writing skills for a variety of purposes. Students will learn about technical writing, writing for publication, writing magazine articles, writing company newsletters, doing research in the sciences and social sciences, writing in the professions, writing reports for industry, the impact of technology on writing and publishing, document design, writing computer manuals and online documentation. (1.2)

*Prerequisite:* ENG 121 or ENG 126

**ENG 267 Teaching Pronunciation to ELLs (3-0) 3 Hours**

This course will introduce students to the basic concepts in articulatory phonetics, including the physiology of articulation, phonetic characterization of individual speech sounds, stress at the word and sentence level, intonation patterns, rhythm and blending. Students will apply this knowledge in examining and developing methods and techniques used to teach pronunciation to English language learners (ELLs). (1.1)

*Prerequisite:* College Reading and Writing Readiness

**ENG 268 Assessment of ELLs (3-0) 3 Hours**

This course will provide participants with a basic understanding of assessment concepts and terminology. Current assessment tools used with English Language Learners (ELLs) will be introduced. The course will also examine alternative assessments and techniques for evaluating and designing effective assessments for ELLs. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**ENG 271 Teaching English to Speakers of Other Languages Practicum (1-12) 3 Hours**

This course will include observation of experienced ESL teachers, as well as supervised teaching in an ESL setting. It will include evaluating course materials and planning and implementing of lesson plans that apply TESOL theory and methodology in the language classroom. (1.1)

*Prerequisite:* ENG 127, ENG 128, ENG 261, ENG 262, ENG 265, ENG 267, ENG 268 and CMM 127 (all C or better) and consent of instructor

## Course Information and Descriptions

### **ENG 272 Principles and Practices in Foreign Language Teaching (3-0) 3 Hours**

This course will present important principles and practices in language learning and teaching in a foreign language context. There will be an overview of first and second language acquisition theories and of issues to consider in both first and second language acquisition. There will be a discussion of the importance of considering the teaching and learning context, as well as other factors that need to be considered when planning instruction, including learners' backgrounds, learning preferences and current needs.

*Note:* This course does not satisfy the requirements of the ISBE ESL endorsement. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **ENG 273 English Language: Structure and Use (3-0) 3 Hours**

This introductory course will explore the English language, its internal structure and its function. An analysis of the English language in terms of its phonetics, phonology, and grammar will be made. Students will apply this knowledge in examining and developing methods and techniques to teach English learners in different teaching contexts.

*Note:* This course does not satisfy the requirements of the ISBE ESL endorsement. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **ENG 274 Teaching English as a Foreign Language Pedagogy (3-0) 3 Hours**

This course will discuss approaches to teaching English in a non-English speaking context, referred to as Teaching English as a Foreign Language (TEFL). There will be a brief overview of the methodical history of foreign language teaching. Strategies, approaches and techniques to develop learners' receptive (listening and reading) and productive skills (writing and speaking) will be presented. In addition, the course will present ways to integrate language and content instruction.

*Note:* This course does not satisfy the requirements of the ISBE ESL endorsement. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **ENG 275 Language Teaching Fieldwork (3-0) 3 Hours**

This practicum program allows students a chance to gain hands-on experience in a real classroom environment while using the skills and methods addressed in the TEFL courses. The practicum also gives students a chance to experiment with new classroom situations and program ideas in an environment where they can consult with others.

*Note:* This course does not satisfy the requirements of the ISBE ESL endorsement. (1.2)

*Prerequisite:* ENG 272 and ENG 273

*Corequisite:* ENG 274

## English Language Instruction (ELI)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

### **ELI 100 Topics in Academic Enhancement for English Language Learners (Variable) 1-4 Hours**

This course will help high- intermediate to advanced level English language learners to improve and practice specific language skills, such as pronunciation, vocabulary, or grammar, in an academic or professional context.

*Note:* This course may be repeated. (1.4)

*Prerequisite:* ELI Accuplacer score of 199 or higher OR College Reading and Writing Readiness

*May be taken four times for credit toward degree*

### **ELI 101 Academic English-Beginning (6-0) 6 Hours**

This course offers intensive academic language instruction at the beginning level to English language learners who want to pursue academic studies in American colleges and universities or who want to practice their careers in the United States. The course is divided into two sections: one focuses on Reading and Oral Skills and the other focuses on Writing and Grammar. However, both sections provide integrated practice and reinforcement for students in all skills--reading, writing, listening, speaking, grammar and vocabulary--as well as American culture and study skills. (1.4)

*Prerequisite:* ELI Accuplacer score of 120 or higher; OR College Reading and Writing Readiness

### **ELI 102 Academic English-Intermediate (6-0) 6 Hours**

This course offers intensive academic language instruction at the intermediate level to English language learners who want to pursue academic studies in American colleges and universities or who want to practice their careers in the United States. The course is divided into two sections: one focuses on Reading and Oral Skills and the other focuses on Writing and Grammar. However, both sections provide integrated practice and reinforcement for students in all skills--reading, writing, listening, speaking, grammar and vocabulary--as well as American culture and study skills. (1.4)

*Prerequisite:* Both sections (12 hours) of ELI 101 (C or better); OR ELI Accuplacer score of 171 or higher; OR College Reading and Writing Readiness

### **ELI 103 Academic English - Advanced I (6-0) 6 Hours**

This course offers intensive academic language instruction at the advanced level to English language learners who want to pursue academic studies in American colleges and universities or who want to practice their careers in the United States. The course focuses on Writing and Grammar. However, it provides integrated practice and reinforcement for students in all skills--reading, writing, listening, speaking, grammar and vocabulary--as well as American culture and study skills.

*Note:* ELI 103 and ELI 104 are independent courses. ELI 103 is NOT a prerequisite for ELI 104. (1.4)

*Prerequisite:* 12 credit hours in ELI 102 with a grade of C or better; OR ELI Accuplacer score of 221 or higher; OR College Reading and Writing Readiness

**ELI 104 Academic English - Advanced II (6-0) 6 Hours**

This course offers intensive academic language instruction at the advanced level to English language learners who want to pursue academic studies in American colleges and universities or who want to practice their careers in the United States. The course focuses on Reading and Oral Skills. However, it provides integrated practice and reinforcement for students in all skills--reading, writing, listening, speaking, grammar and vocabulary--as well as American culture and study skills.

*Note:* ELI 103 and ELI 104 are independent courses. ELI 103 is NOT a prerequisite for ELI 104. (1.4)

*Prerequisite:* 12 credit hours in ELI 102 with a grade of C or better; OR ELI Accuplacer score of 221 or higher; OR College Reading and Writing Readiness

**ELI 108 Academic Reading and Writing for English Language Learners (6-0) 6 Hours**

This course is designed for English language learners who have been educated in the US or who have lived for many years in the US but who still need to develop advanced academic reading and writing skills necessary to succeed in courses in American colleges and universities. This course will focus on necessary academic reading and writing skills as well as vocabulary enrichment and grammar practice that English language learners need to continue progress in the written forms of their second language. (1.4)

*Prerequisite:* ELI Accuplacer score of 235 or higher OR APT score of 80 or higher OR ELI 103 (C or better) OR ELI 104 (C or better) OR ELI 110 OR College Reading and Writing Readiness

**ELI 109 Academic Reading and Writing for English Language Learners II (3-0) 3 Hours**

This course is designed for English language learners who have been educated in the US or who have lived for many years in the US but who still need to further enhance their academic reading and writing skills in order to succeed in courses in American colleges and universities. This course is also designed for advanced English Language Learners who have completed other ELI courses but still need additional ELI support in order to gain confidence in their reading and writing abilities. This course will focus on necessary academic reading and writing skills as well as vocabulary enrichment and grammar practice that English language learners need to continue progress in the written forms of their second language. Important study skills will also be practiced. There will be pronunciation practice of key vocabulary and group discussion on a regular basis. (1.4)

*Prerequisite:* ELI Accuplacer score of 285 or higher, OR APT - 122 or higher; OR ELI 103 and ELI 104 (both B or better); OR ELI 108, ELI 110, OR ENG 108 (all C or better); OR College Reading and Writing Readiness

**ELI 110 Academic English for English Learners - Transitional (9-0) 9 Hours**

This course is the fourth and highest level of intensive English language instruction. All English language skills are integratively taught and practiced: reading, writing, grammar, vocabulary, speaking and listening. The focus is on formal language, study skills and critical thinking skills that will help English learners successfully reach their future academic, professional or personal goals. This course meets the needs of English learners who want to continue their college studies at the College of Lake County, transfer to another college or university, practice their profession in the US or obtain language proficiency for personal reasons. (Credit hours earned for ELI 110 may not be applied towards a degree and are not transferable to another institution.) (1.4)

*Prerequisite:* ELI 103 AND ELI 104 (both C or better) or ELI 108 (C or better) or ELI Accuplacer score of 270 or above or College Reading and Writing Readiness

**ELI 125 Introduction to American College Culture (Variable) 1-4 Hours**

This course introduces college-level academic strategies and acculturation skills to English language learners with academic goals. Topics will include the organization of higher education systems in the US, the differences and navigation of US grading systems, Western learning and teaching styles, personal and academic support structures within the college, differences in academic requirements and expectations, appropriate classroom behavior and linguistic forms, and healthy and safe acclimation to the academic and social college environment. (1.1)

*Prerequisite:* ELI Accuplacer test score of 221 or higher OR APT score of 80 or higher OR College Reading and Writing Readiness  
*Corequisite:* ELI 103 or ELI 104 or ELI 108 or ELI 109 or ELI 110

## English as a Second Language (ESL)

### Adult Basic Education, GED® and ESL Division Building 4, (847) 543-2021

Adult Education classes are intended for people who live in Lake County. They are not appropriate for students with B1, B2, F1, F2, J1 or J2 visas, nor are they appropriate for short-term visitors to the U.S.

In general, students must be at least 18 years old in order to enroll in adult education classes. However, 16-year-olds and 17-year-olds may register with an official Secondary School Reference Form signed by their local High School authorized representative. U.S. High School graduates and 16-year-olds must meet additional eligibility requirements. New students must attend an orientation session before attending classes.

The Adult Basic Education, GED and ESL Division provides several specific types of educational opportunities and is funded in part by grants from the federal government.

**ESL 26 ESL: Academic Purposes: Level II: Speaking and Listening (3-0) 3 Hours**

Students learning English at level 2 of English language proficiency will practice speaking and listening in English to prepare them for later academic oral work. Course content will help students to sharpen appropriate speaking and listening skills such as: clarification and repetition requests, following oral instructions, responding correctly to dictated materials and giving oral presentations. (1.9)

**ESL 27 ESL: Academic Purposes: Level II: Grammar (3-0) 3 Hours**

Students learning English at level 2 of English language proficiency will learn English grammar and syntactic structures to help them in academic speaking, reading and writing. Course content will include singular and plural nouns and verbs, pronouns, adjectives and adverbs and present and present progressive verbs. Practice will include both written and oral activities. (1.9)

## Course Information and Descriptions

**ESL 28 ESL: Academic Purposes:  
Level II: Reading (3-0) 3 Hours**

Students learning English at level 2 of English language proficiency will read in English to prepare for later academic reading assignments. Students will read short narrative, descriptive and explanatory passages. They will develop multiple comprehension strategies, such as finding the main idea, noticing chronological order and using picture dictionaries to clarify meaning of unfamiliar words. (1.9)

**ESL 29 ESL: Academic Purposes: Level II:  
Writing and Computer Skills (3-0) 3 Hours**

Students learning English at level 2 of English language proficiency will write in English to prepare them for later academic written assignments. Students will practice writing a description and writing a personal topic. They will strengthen their writing by adding specific details, revisiting and composing multiple drafts. This course includes basic word processing skills for writing future college papers and using the Internet as a resource for language learning. (1.9)

**ESL 30 Beginning English as a Second  
Language Literacy (Variable) 3-6 Hours**

This course is intended for students with no proficiency in English and/or very low literacy skills in their native language. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 31 Beginning ESL Literacy  
Level 1.2 (Variable) 0.5-6 Hours**

This course is a continuation of English as a Second Language Beginning Literacy Level 1.1. It is for students who have a fundamental knowledge of English. This course continues to focus on reading, writing, listening and speaking in everyday situations, and looks to reinforce and strengthen students' skills while addressing civics and community resources, workplace skills and employment, basic banking needs and some American culture.

*Recommended:* Students should be placed using the scores on the state mandated placement test for ESL Literacy level or by teacher recommendation. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 36 ESL: Academic Purposes: Level III:  
Speaking and Listening (Variable) 3-6 Hours**

Students learning English at level 3 of English language proficiency will practice speaking and listening in English to prepare them for later academic oral work. Course content will help students to sharpen appropriate speaking and listening skills such as: following oral instructions, talking about present abilities, past experiences and future goals, managing conversations and giving short oral presentations. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 37 ESL: Academic Purposes:  
Level III: Grammar (Variable) 3-6 Hours**

Students learning English at level 3 of English language proficiency will learn English grammar and syntactic structures to help them in academic speaking, reading and writing. Course content will include past and future verb tenses, forming questions, comparatives and superlatives and modal forms. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 38 ESL: Academic Purposes:  
Level III: Reading (3-0) 3 Hours**

Students learning English at level 3 of English language proficiency will read in English to prepare for later academic reading assignments. Students will read short authentic and adapted selections and will develop multiple comprehension strategies, such as finding main ideas and details, identifying transition words and using a bilingual dictionary. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 39 ESL: Academic Purposes: Level III:  
Writing and Computer Skills (3-0) 3 Hours**

Students learning English at level 3 of English language proficiency will write in English to prepare them for later academic written assignments. Students will practice writing about a process, narrating a past experiences and describing future goals. They will strengthen their writing by adding specific details, using paragraphs appropriately, revising and composing multiple drafts. This course includes basic word processing skills for writing future college papers and using the Internet as a resource for information and for language learning. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 40 Beginning English as a Second  
Language III (Variable) 3-6 Hours**

This course is for students who have little or no knowledge of English. Students will learn to speak, read and write using present progressive, future and imperative verb forms. They will be able to use singular and plural nouns, pronouns, prepositions of place, possessives, time adverbs and descriptive adjectives. They will acquire basic vocabulary to describe themselves and their environment. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 41 Beginning ESL Level 2.2 (Variable) 0.5-6 Hours**

This course is a continuation of Beginning Level 2.1. This course is intended for English as Second Language learners who are just starting to communicate in English. The focus of this course is to improve and extend the student's overall skills in reading, writing, listening and speaking by working on basic grammatical structures, and extending the student's general knowledge of survival skills through reading and writing.

*Prerequisite:* Student should have the appropriate score on the state mandated ESL exam and/or teacher recommendation. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 42 Beginning English as a Second  
Language V (Variable) 3-6 Hours**

This course is for students who have little knowledge of English. Students will learn to speak, read, and write using negative statements in present and future tenses, auxiliary verbs "can" and "have to", clothing vocabulary, colors, countries, nationality and languages, and why/because questions. They will concentrate on listening and speaking skills, with additional work on reading and writing. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 43 High Beginning  
ESL Level 3.2 (Variable) 0.5-6 Hours**

This course is a continuation of High Beginning Level 3.1. This course is for students who are able to ask and answer simple questions related to survival needs and basic social situations. They should have some control of very basic grammar structures, intonation and speaking pace and rhythm; and also be able to use basic reading strategies to read adapted reading materials as well as write simple notes, messages and short paragraphs using present tense and past tense with correct punctuation.

*Prerequisite:* Student should have the appropriate score on the state mandated ESL exam and/or teacher recommendation. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 44 English as a Second Language -  
Writing Improvement I (Variable) 1.5-3 Hours**

This course is for English-as-a-Second Language students from the upper beginning to the advanced level who want to write better in English. Students will learn spelling rules and work on improving their vocabulary, sentence structure and paragraph organization. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 45 English as a Second Language -  
Conversation I (Variable) 1.5-3 Hours**

This course is for English-as-a-Second Language students who already know some English grammar and have some knowledge of vocabulary but wish to improve their ability to speak and understand English in various social and business situations. American slang and usage will be taught. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 46 ESL: Academic Purposes Level IV  
Speaking and Listening (Variable) 3-6 Hours**

Students learning English at level 4 of English language proficiency will practice speaking and listening in English to prepare them for later academic oral work. Content will include academic topics through various oral formats, including pair work, group work, extended discussion, lectures, presentations, guest speakers, tapes, and movies. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 47 ESL: Academic Purposes  
Level IV Grammar (3-0) 3 Hours**

Students learning English at level 4 of English language proficiency will learn English grammar and syntactic structures to help them in academic speaking, reading and writing. Covered structures include pronoun forms, irregular past forms, modals, questions, progressive forms, future, and participial adjectives. Practice includes both oral and written activities. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 48 ESL: Academic Purposes  
Level IV Reading (3-0) 3 Hours**

Students learning English at level 4 of English language proficiency will read in English to prepare for later academic reading assignments. They will read authentic short stories and essays and adapted non-fiction articles, learn word forms and parts of speech, learn to use a monolingual dictionary, scan and skim texts for information, and use contextual clues to find meanings of new vocabulary. Practice includes both oral and written work related to texts and new vocabulary. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 49 ESL: Academic Purposes  
Level IV Writing (3-0) 3 Hours**

Students learning English at level 4 of English language proficiency will write in English to prepare them for later academic writing assignments. They will practice narrative and expository forms through written exercises, journals, personal essays, and summaries. This course includes basic word processing and skills for writing college papers. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 50 Intermediate English as a  
Second Language I (Variable) 1-6 Hours**

This course is for students who can already speak and write in the present and future and can describe themselves in their environment using basic vocabulary and structures. Students will learn to use regular and irregular past and present perfect verbs. They will practice communicating using infinitives, direct and indirect objects, comparative adjectives and more extensive vocabulary. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 51 Intermediate ESL Level 4.2 (Variable) 0.5-6 Hours**

This course is a continuation of Intermediate Level 4.1. It is for students who can express basic needs and can engage in basic social conversations. Students are also able to monitor spoken comprehension using listening strategies and can decipher new words in context. Students can use reading strategies and context clues to interpret and hold a basic discussion about familiar topics and combine new and prior knowledge in a variety of text. This course extends the students' basic knowledge of speaking, listening, reading and writing through a variety of life skill and workplace topics.

*Prerequisite:* Appropriate score on the state mandated ESL test and/or teacher recommendation. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 52 Intermediate English as a Second  
Language III (Variable) 3-6 Hours**

This course is for students who already know some English and who can speak and write using present and future tenses and basic vocabulary and structures. Students will learn correct use of intensifiers, reflexive pronouns, negative words and comparative adverbs. They will learn the future tense of auxiliary verbs and gain vocabulary knowledge in the areas of accidents and emergencies, polite excuses, customer complaints and the automobile. (1.9)

*Course fee*

*May be taken four times for credit*

## Course Information and Descriptions

- ESL 53 High Intermediate ESL Level 5.2 (Variable) 0.5-6 Hours**  
This course is a continuation of High Intermediate Level 5.1. It is for students who have a basic command of spoken English. The student should be able to comprehend basic medical terms and forms, complete simple job applications and follow basic oral instructions. The student should also be able to write basic instructions and simple paragraphs about daily activities and personal issues and should be capable of working with basic computer software and following basic technology instructions. This course will extend students speaking, listening, reading and writing skills based on a variety of life skill topics.  
*Prerequisite:* Appropriate score on the state mandated ESL test and/or teacher recommendation. (1.9)  
*Course fee*  
*May be taken four times for credit*
- ESL 54 English as a Second Language - Writing Improvement II (Variable) 1.5-3 Hours**  
This course is for English-as-a-Second Language students from the mid-intermediate to the advanced level who want to write better in English. Students will learn to write more complex sentences, to use more appropriate vocabulary for particular writing tasks and to compose well-developed paragraphs and longer compositions. (1.9)  
*Course fee*  
*May be taken four times for credit*
- ESL 55 English as a Second Language - Conversation II (Variable) 1.5-3 Hours**  
This course is for English-as-a-Second Language students at the upper intermediate and advanced level who are already familiar with English grammar and vocabulary items but wish to improve their ability to speak and understand English in various social and business situations. American slang and usage will be taught. (1.9)  
*Course fee*  
*May be taken four times for credit*
- ESL 56 Listening and Speaking for Intensive Low Advanced ESL (Variable) 0.5-6 Hours**  
This course is for English language learners at level 5 of English language proficiency; students will speak and listen in English in order to prepare them for the workforce, life skills and transition into a variety of college programs and certificates. Appropriate score on the ESL placement test or Department Consent required. (1.9)  
*Course fee*  
*May be taken four times for credit*
- ESL 57 Grammar for Intensive Low Advanced ESL (Variable) 0.5-6 Hours**  
Students will learn English grammar and structures to help them in speaking and writing at the low advanced level to prepare for workforce, life skills and transition into a variety of college programs. Structures covered in class include introductions to past participle forms, present perfect aspect, gerunds and infinitives, and pronoun reference in direct and indirect speech. Practice includes both oral and written activities. Appropriate score on the ESL placement test or Department Consent required. (1.9)  
*Course fee*  
*May be taken four times for credit*
- ESL 58 Reading for Intensive Low Advanced ESL (Variable) 0.5-6 Hours**  
Students at the low advanced level of English language proficiency will read in English to prepare for workforce, life skills and transition into a variety of college programs. Emphasis is placed upon readings related to American culture. Practice includes activities for vocabulary improvement and dictionary skills.  
*Prerequisite:* Appropriate score on the ESL placement test or department consent. (1.9)  
*Course fee*  
*May be taken four times for credit*
- ESL 59 Writing for Intensive Low Advanced ESL (Variable) 0.5-6 Hours**  
Students at the low advanced level of English language proficiency will write in English to prepare for various types of written assignments found in workplace and college preparatory settings. Appropriate score on the ESL placement test or Department Consent required. (1.9)  
*Course fee*  
*May be taken four times for credit*
- ESL 60 High Advanced English as a Second Language I (Variable) 3-6 Hours**  
This course is for non-native speakers who are familiar with many of the essential grammatical structures and most verb tenses but need further skills in English. Students in this class will strengthen and refine their use of structures learned previously. They will learn to use passive voice, superlative adjectives and more specific vocabulary. They will become familiar with American slang, idioms and cultural patterns. (1.9)  
*Course fee*  
*May be taken four times for credit*
- ESL 61 Low Advanced ESL 6.2 (Variable) 0.5-6 Hours**  
This is a continuation of Advanced Level 6.1. This course is for students who can hold a conversation in English on everyday subjects and on new subjects with new vocabulary; they can clarify general meaning by rewording and summarizing content. They also have a good grasp of English grammar and grammar rules. In this course, students will practice reading, writing, speaking and listening in English from a variety of text, adapted and authentic.  
*Prerequisite:* Student should have the appropriate score on the state mandated ESL exam and/or teacher recommendation. (1.9)  
*Course fee*  
*May be taken four times for credit*
- ESL 62 Advanced English as a Second Language III (3-0) 3 Hours**  
This course is for non-native speakers of English who are familiar with many of the essential grammatical structures and most verb tenses but need further skill in English. Students will strengthen and refine their control of structures learned previously. They will focus on accurate use of verb phrases, relative clauses and subject-verb agreement in speech and in writing. Listening comprehension and paragraph writing will also be stressed. (1.9)  
*Course fee*
- ESL 63 Advanced ESL Level 7.2 (Variable) 0.5-6 Hours**  
This course is a continuation of Advanced Level ESL 7.1. It is a course for English Language Learners who are familiar with many of the essential grammatical structures and most verb tenses, but who need further skills in speaking, reading and writing English. Students

will strengthen and refine their control of speaking, reading and writing skills through a variety of topics based on American culture and cultural issues.

*Prerequisite:* Appropriate score on the state mandated ESL exam and/or teacher recommendation. (1.9)

*Course fee*

*May be taken four times for credit toward degree*

**ESL 70 English as a Second Language Study Skills I (Variable) 1-3 Hours**

This class is for students who have achieved communicative competence but wish to refine listening, speaking, reading and writing skills. They will learn content in advanced areas relating to the writing skills GED test. (1.9)

*Course fee*

*May be taken four times for credit*

**ESL 71 English as a Second Language Study Skills II (Variable) 1-3 Hours**

This class is for students who have achieved communicative competence but wish to refine listening, speaking, reading, and writing skills. They will learn content in advanced areas relating to the GED reading test. (1.9)

*Course fee*

**ESL 72 English as a Second Language Reading And Writing Skills (3-0) 3 Hours**

This class is for students who are already able to communicate in English but wish to upgrade their reading and writing skills for educational, business or personal reasons. Students will improve their reading comprehension, expand their vocabulary, learn to make inferences and scan for information and learn to write more correct and complex sentences, paragraphs and longer compositions. (1.9)

*Course fee*

**ESL 73 English as a Second Language Speaking and Listening Skills (3-0) 3 Hours**

This course is for students who are already able to communicate in English but wish to improve their listening and speaking skills for business, educational or personal reasons. Students will learn to listen carefully, take notes and outline oral presentations, increase their speaking vocabulary and practice speaking in both informal discussions and more structured situations. (1.9)

*Course fee*

**ESL 80 English as a Second Language Academic Purposes Intermediate I (3-0) 3 Hours**

This is the first portion of a course in intermediate English as a Second Language for students wishing to pursue academic studies in American colleges and universities. Students will improve their reading, writing, speaking and listening while focusing on a chosen content area. Emphasis will be on directions and sequencing in academic contexts. (1.9)

*Course fee*

**ESL 81 English as a Second Language Academic Purposes Intermediate II (3-0) 3 Hours**

The second portion of a course in intermediate English as a Second Language is for students wishing to pursue academic studies in American colleges and universities. Students will improve their reading, writing, speaking and listening while focusing on a chosen content area introduced in English as a Second Language for Academic Purposes - Intermediate I. Emphasis will focus on series of directions and sequencing in academic contexts. (1.9)

*Course fee*

**ESL 82 English as a Second Language Academic Purposes Intermediate III (3-0) 3 Hours**

The third portion of a course in intermediate English as a Second Language is for students wishing to pursue academic studies in American colleges and universities. Students will improve their reading, writing, speaking and listening while focusing on a chosen content area. Emphasis will be on American life and college academic culture. (1.9)

*Course fee*

**ESL 83 English as a Second Language Academic Purposes Intermediate IV (3-0) 3 Hours**

This fourth portion of a course in intermediate English as a Second Language is for students wishing to pursue academic studies in American colleges and universities. Students will improve their reading, writing, speaking and listening while focusing on a chosen content area chosen in English as a Second Language for Academic Purposes-Intermediate III. Emphasis will focus on expressing comparisons. (1.9)

*Course fee*

**ESL 95 Citizenship I (Variable) 3-4 Hours**

This course is designed to prepare people for the US Citizenship Immigration Services Naturalization test. (1.9)

*Course fee*

*May be taken four times for credit*

## Fire Science Technology (FST)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

**FST 111 Introduction to Fire Service (3-0) 3 Hours**

This course introduces students to the history and philosophy of the fire service. An overview of all aspects of fire science technology: fire fighting, emergency medical, underwater rescue, hazardous materials, public education, fire investigations, and fire prevention will be provided. This course provides an orientation for people who are considering involvement in the fire service. Field trips are scheduled for the course.

*Note:* Individuals with greater than one year firefighter experience are not eligible for credit. (1.2)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ENG 100 -AND- Basic Algebra Readiness

**FST 116 Fire Fighting Tactics and Strategy I (3-0) 3 Hours**

An introduction to the basic principles and methods associated with the strategic and tactical responsibilities of the line officer on the fireground. Emphasizes size-up, fire operations, pre-fire planning, and basic engine and truck company operations. Persons currently recognized by the Office of the State Fire Marshall (OSFM) as a firefighter are eligible to challenge the OSFM end-of-course exam.

*Note:* FST 111 and/or one year active experience in the fire service is recommended. (1.2)

*Prerequisite:* FST 111

## Course Information and Descriptions

### **FST 117 Fire Fighting Tactics and Strategy II (3-0) 3 Hours**

Continuation of FST 116, with advanced principles and methods associated with fireground strategies and tactics, required of the company officer and chief officer. The course emphasizes multi-company alarm assignments, sectorization of the fireground, handling disasters and major fire incidents. Student participation of assigned fire simulation exercises will be required. Persons currently recognized by the Office of the State Fire Marshall (OSFM) as a firefighter are eligible to challenge the OSFM end-of-course exam. (1.2)

*Prerequisite:* FST 116

### **FST 118 Incident Command (3-0) 3 Hours**

This course introduces students to the basic principles that firefighters, company officers and chief officer use when organizing and managing an emergency scene. This course will stress sectorization, scene safety, and scene management. Emergency fire, hazardous materials, underwater and medical scene management will be reviewed. (1.2)

*Prerequisite:* FST 111 (C or better)

### **FST 119 Fire Apparatus Engineer (3-0) 3 Hours**

A classroom and hands on course, designed for personnel who have or may have the responsibility as an apparatus engineer. This subject covers preventive maintenance, pumps and controls, water supply, pump testing, and hydraulics. The course is designed to meet the Office of the State Fire Marshal, and NFPA 1001 requirements, except for driving requirements that must be met by the individual department. (1.2)

*Prerequisite:* FST 111

### **FST 130 Basic Operations Firefighter A (3-2) 4 Hours**

This course focuses on the organization and structure of a fire agency, fire behavior, building construction, safety issues in the fire service, communication procedures and practices, self-contained breathing apparatus, fire extinguishers and fire extinguishing agents, and ropes and knots. The course will include weekly lectures and lab sessions that focus on developing and enhancing practical skills. Students enrolled in this course will become active members of an assigned fire department.

*Note:* This is the first of three courses that prepares students to sit for the Office of the Illinois State Fire Marshal's Basic Operations Firefighters certification examination. (1.2)

*Prerequisite:* FST 111 (C or better)

*Corequisite:* EMT 111 and ENG 121 (both C or better)

*Recommended:* MTH 114 (C or better)

*Course fee*

### **FST 131 Basic Operations Firefighter B (3-2) 4 Hours**

This course focuses on fire service ladders, hose and related appliances, nozzles and streams, water supply, forcible entry and ventilation. The course will include weekly lectures and lab sessions that focus on developing and enhancing practical skills. Students enrolled in this course will be active members of an assigned fire department.

*Note:* This is the second of three courses that prepares students to sit for the Office of the Illinois State Fire Marshal's Basic Operations Firefighters certification examination. (1.2)

*Prerequisite:* FST 130 (C or better)

*Corequisite:* PHY 120, Humanities OR Fine Arts elective, and CIT 119 OR CIT 120 (all C or better)

*Course fee*

### **FST 132 Basic Operations Firefighter C (3-2) 4 Hours**

This course focuses on search and rescue, fire control, loss control, protecting evidence, fire detection, alarm, and suppression systems, prevention techniques, public education, wild land and ground cover firefighting, and firefighter safety and survival. The course will include weekly lectures and lab sessions that focus on developing and enhancing practical skills. Students enrolled in this course will be active members of an assigned fire department.

*Note:* This is the third of three courses that prepares students to sit for the Office of the Illinois State Fire Marshal's Basic Operations Firefighters certification examination. (1.2)

*Prerequisite:* FST 131 (C or better)

*Corequisite:* CMM 121 and PSY 121 (both C or better)

*Course fee*

### **FST 173 Fire Instructor I (3-0) 3 Hours**

This course is designed to meet the needs of those individuals who wish to learn the techniques of instructing in the fire service. It is structured to provide basic information about human relations in the classroom environment, methods of teaching, and the proper method of writing lesson plans. Areas covered include: Orientation and description of the instructor's job, roles and responsibilities of the fire service instructor, concepts of learning, human factors in learning, oral communications, methods of instruction, lesson plans, instructional materials, organizing the learning environment, testing and evaluation, records and reports, and practical application.

Persons currently recognized by the Office of the State Fire Marshall (OSFM) as a firefighter are eligible to challenge the OSFM end-of-course exam.

*Note:* FST 111 and/or one year active service experience in the fire service is recommended. (1.2)

*Prerequisite:* FST 111

### **FST 174 Fire Instructor II (3-0) 3 Hours**

This course is a continuation of FST 173. Teaches advanced principles and techniques of instruction. This course is structured to provide information about human relationships in the teaching-learning environment, methods of lesson and course development. Materials covered will include performance objectives, instructional materials development, evaluation and references. Persons currently recognized by the Office of the State Fire Marshall (OSFM) as a firefighter are eligible to challenge the OSFM end-of-course exam. (1.2)

*Prerequisite:* FST 173

### **FST 177 Fire Prevention Principles I (3-0) 3 Hours**

The introductory course for the individual who will be involved in code enforcement. It will include: current laws, codes, ordinances, building construction, occupancies, hazards and causes, inspection techniques and investigations. Persons currently recognized by the Office of the State Fire Marshall (OSFM) as a firefighter are eligible to challenge the OSFM end-of-course exam. (1.2)

*Prerequisite:* FST 111

### **FST 192 Hazardous Materials First Responder (3-0) 3 Hours**

This course is designed for firefighters and other persons who might encounter Hazardous Materials in the course of their occupations. This course will stress identification, site entry, isolation, evacuation, use of Materials Safety Data sheets, and how to obtain assistance at the hazardous materials scene. Practical applications and hands on experiences are required in this course. Persons currently recognized by the Office of the State Fire Marshall (OSFM) as a firefighter are eligible to challenge the OSFM end-of-course exam. (1.2)

*Prerequisite:* FST 111

*Course fee*

**FST 215 Fire Inspection Applications (3-0) 3 Hours**

Study of public relations and inspection techniques and procedures. Covered are: evaluation of fire hazards, inspection techniques for various types of buildings, procedures for conducting inspections, report and record keeping procedures, various types of fire prevention campaigns, the training of fire inspectors, coordination of activities with other government agencies, arson investigation, and on-the-site field inspections. (1.2)

*Prerequisite:* FST 214

**FST 217 Fire Officer Communications (3-0) 3 Hours**

Techniques of company officer communications and group dynamics. Acquaints the student with the principles of communications and the role of the company officer in both formal and informal communication processes. Persons currently recognized by the Office of the State Fire Marshall (OSFM) as a firefighter are eligible to challenge the OSFM end-of-course exam.

*Note:* Student orientation and pre-scheduled classroom meetings required. (1.2)

*Prerequisite:* FST 111

**FST 218 Fire Officer Supervision (3-0) 3 Hours**

Introduction to objectives and techniques of fire company management. Acquaints the student with the role and function of the company officer. Discussion of management theories and practices; includes planning, organizing, staffing, directing and controlling. Persons currently recognized by the Office of the State Fire Marshall (OSFM) as a firefighter are eligible to challenge the OSFM end-of-course exam. (1.2)

*Prerequisite:* FST 111

**FST 273 Fire Science Business and Operations (3-0) 3 Hours**

The advanced study of management principles and techniques used by mid-level officers. These studies will include: management of resources; personnel, money, facilities, and time; principles of delegation, problem solving and motivation. Persons currently recognized by the Office of the State Fire Marshall (OSFM) as a firefighter are eligible to challenge the OSFM end-of-course exam. (1.2)

*Prerequisite:* FST 111

**FST 274 Fire Administration and the Law (3-0) 3 Hours**

Management principles and techniques used by future or current chief officers in the fire service. Acquaints the student to principles of public relations, labor relations, personnel management, and administrative liability, including: criminal and civil liability, disciplinary hearings, avoiding lawsuits, administrative investigations, and State and Federal Regulations. Persons currently recognized by the Office of the State Fire Marshall (OSFM) as a firefighter are eligible to challenge the OSFM end-of-course exam. (1.2)

*Prerequisite:* FST 111

**FST 279 Special Topics in the Fire Service (3-0) 3 Hours**

This course will take a subject of topical interest such as rescue practices, water supply analysis or reporting systems and cover that subject in depth. Because topics will vary widely from year to year a student may seek approval to repeat this course once for credit. (1.2)

*May be taken twice for credit toward degree*

**French (FRN)**

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

**FRN 121 Beginning Conversational French I (4-0) 4 Hours**

Fundamentals of language necessary for understanding, speaking, reading and writing of French. Practice in pronunciation from dialogues and pattern practices. (1.1)

**FRN 122 Beginning Conversational French II (4-0) 4 Hours**

Fundamentals of language necessary for understanding, speaking, reading, and writing of French. Practice in pronunciation from dialogues and pattern practices. This is a continuation of FRN 121. (1.1)

*Prerequisite:* FRN 121

**FRN 221 Intermediate French I (4-0) 4 Hours**

Review and further study of grammar concepts, continued aural-oral practice, simple conversation and selected readings with text analysis. (1.1)

*Prerequisite:* FRN 122

**FRN 222 Intermediate French II (4-0) 4 Hours**

This course reviews and expands the use of French grammar by introducing more advanced structures into verbal and written communication. Films, material from newspapers and magazines, and from other media will enable students to use authentic materials that are culturally relevant to explore further the French-speaking world and its culture. (1.1)

*Prerequisite:* FRN 221 (C or better)

*Fulfills the CLC I/M Education Requirement.*

**IAI: H1 900**

**FRN 223 French Civilization I (3-0) 3 Hours**

Composition and conversation based on contemporary writings emphasizing the social, political, economic and literary trends of modern France. (1.1)

*Prerequisite:* FRN 222

**IAI: H1 900**

**FRN 224 French Civilization II (3-0) 3 Hours**

Study of France and its people through its language and political institutions as well as major trends in literature and art from the Gallo-Roman area to the present. (1.1)

*Prerequisite:* FRN 223

**IAI: H1 900**

## Gender and Sexuality Studies (GXS)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### **GXS 121 Introduction to Gender Studies (3-0) 3 Hours**

This course provides an introduction to the interdisciplinary field of gender studies. It will explore the varied perspectives of gender and gender issues, including the biological, psychological, sociological, and anthropological approaches. Also included is a discussion of the philosophical, political, historical, and economic perspectives, as well as a literary analysis of gender. The course will also introduce students to potential career opportunities within the field. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: S9 900**

### **GXS 221 Theories of Feminism (3-0) 3 Hours**

With an emphasis on the social science perspective, this course explains the theoretical nature of individual and institutional oppression of underrepresented groups, as well as promote greater economic, social, and political equality for men and women. The course will provide an in-depth analysis of classic and contemporary theories of feminism from a multidisciplinary, social science perspective. It will introduce students to the prominent feminist scholars, as well as offer a discussion of the feminist movement as the basis for social policy and social activism. (1.1)

*Prerequisite:* GXS 121 (C or better)

*Recommended:* SWK 228

*Fulfills the CLC I/M Education Requirement.*

### **GXS 229 Sex, Gender, and Power (3-0) 3 Hours**

This course will examine the major sociological concepts, theories, and research methods in relation to gender issues. It will explore the development of gender roles cross-culturally, as well as the consequences of dividing society along gender lines. Topics for discussion may include: gender role socialization, cross-cultural definitions of gender, underrepresentation on the basis of gender, gender differences in communication, gender issues in relation to the family, workplace, and schools, media images of men and women, and gender-based violence.

GXS 229 and SOC 229 are cross-listed. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* SOC 121

*Fulfills the CLC I/M Education Requirement.*

**IAI: S7 904D**

### **GXS 299 Special Topics in Gender and Sexuality Studies (Variable) 1-3 Hours**

This course addresses the in-depth study of special topics in gender and sexuality that do not have specific courses in the catalogue. Course content will vary depending on the topic being studied and may include gendered topics in biology, psychology, sociology, anthropology, philosophy, political science, history, economics or literature. This course may be taken up to four times for a maximum of 6 credit hours towards degree completion. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

*May be taken four times, but any topic only once*

## Geography (GEG)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

### **GEG 120 Principles of Physical Geography (3-2) 4 Hours**

This introductory physical science course examines the processes and agents that help to shape and change the environment in which humans live, as well as the spatial interrelationships that exist between the earth's heat and energy systems and weather, climate, biogeography (soils, vegetation), landforms, forces of erosion and human activities. The lab component requires students to apply the scientific method to a variety of problems/exercises related to physical geography. Some exercises may involve field work and local field trips. The lab exercises integrate map reading and interpretation skills. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

**IAI: P1 909L**

### **GEG 121 Physical Geography (3-0) 3 Hours**

This introductory physical science course examines the processes and agents that help to shape and change the environment in which humans live. Emphasis is placed on the interrelationships that exist between the earth's heat and energy systems and the weather, climate, soils, vegetation, streams, oceans, landforms, and human activities. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: P1 909**

### **GEG 122 Cultural Geography (3-0) 3 Hours**

This introductory social science survey course is designed to help students acquire geographic knowledge about human cultural trends and activities. A wide range of current and urgent world concerns such as population control, cultural differences, urbanization, economic livelihoods, and state and nation systems, are placed in a human-geographic context. The course will also assist students gain better geographic perceptions on current world affairs. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: S4 900N**

### **GEG 123 World Regional Geography (3-0) 3 Hours**

This introductory social science course emphasizes the human and physical geography of the world's major regions. Each region is surveyed as to its location and component countries and peoples, world importance, distinctive physical and cultural characteristics, relations to other areas of the world, and the major problems and potentialities associated with each. Students will gain a better geographic perspective on current affairs and an enhanced appreciation of travel. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: S4 900N**

### **GEG 223 Geography of Latin America (3-0) 3 Hours**

This introductory social science course is a survey of Latin America's cultural, economic, physical, political, and social geographies. It emphasizes problems and potentials of regional development and land use. GEG 223 is offered for elective credits. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**GEG 240 Geographic Information Systems I (3-0) 3 Hours**

This course is an introduction to the fundamentals of GIS and basic geographic concepts necessary for analyzing and utilizing spatial data. These concepts include map scale, projections, coordinate systems, methods of symbolizing map data, vector versus raster spatial analysis, air photos and satellite imagery in mapping. Uses of GIS discussed will include its applications in mapping, environmental studies, planning, management and business. (1.1)  
*Prerequisite:* College Reading and Writing Readiness

**GEG 299 Special Topics: Geography (Variable) 1-3 Hours**

This course addresses the in-depth study of special topics in geography, which do not have specific courses in the catalogue. Course content will vary depending on the topic being studied, but could include regional courses, field courses, study abroad programs, field work, directed readings or internships. This course is repeatable up to three times, any topic only once, for a maximum of 6 hours towards degree completion. (1.1)  
*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness  
*May be taken four times for credit toward degree*

## German (GER)

Communication Arts, Humanities and  
 Fine Arts Division, Room B213, (847) 543-2040

**GER 121 Beginning Conversational German I (4-0) 4 Hours**

Fundamentals of language necessary for understanding, speaking, reading and writing of German. Practice in pronunciation from dialogues and pattern practices. (1.1)

**GER 122 Beginning Conversational German II (4-0) 4 Hours**

Fundamentals of language necessary for understanding, speaking, reading, and writing of German. Practice in pronunciation from dialogues and pattern practices. This is a continuation of GER 121. (1.1)  
*Prerequisite:* GER 121

**GER 221 Intermediate German I (4-0) 4 Hours**

Review and further study of grammar concepts, continued oral practice, simple conversation and selected readings. Laboratory practice encouraged. (1.1)  
*Prerequisite:* GER 122

**GER 222 Intermediate German II (4-0) 4 Hours**

This course reviews and expands the use of German grammar by introducing more advanced structures into verbal and written communication. Films, material from newspapers and magazines, and from other media will enable students to use authentic materials that are culturally relevant to explore further the German speaking world and its culture. (1.1)  
*Prerequisite:* GER 221 (C or better)  
*Fulfills the CLC I/M Education Requirement.*  
**IAI: H1 900**

**GER 223 German Civilization I (3-0) 3 Hours**

Composition and conversation based on readings in nineteenth and twentieth century German literature with emphasis on style. (1.1)  
*Prerequisite:* GER 222  
**IAI: H1 900**

**GER 224 German Civilization II (3-0) 3 Hours**

Composition and conversation based on readings in nineteenth and twentieth century German literature with emphasis on style. A continuation of German 223. (1.1)  
*Prerequisite:* GER 223  
**IAI: H1 900**

## Heating and Air Conditioning (HVAC) Engineering Technology (HET)

Engineering, Math and Physical Sciences Division,  
 Room T302, (847) 543-2044

**HET 110 Basic Refrigeration Systems (2-4) 4 Hours**

This course introduces students to basic refrigeration theory and practice in Heating, Ventilation, Air-Conditioning and Refrigeration (HVACR). The function and operational characteristics of the mechanical refrigeration system including condensers, evaporators, compressors, refrigerant metering devices, sustainable energy sources and refrigerants are covered. The use and operation of service manifolds, leak detection, system evacuation and charging, test equipment, flaring, soldering and brazing skills are covered.  
*Note:* The student will be required to purchase basic hand tools that will be used in this and other refrigeration and air conditioning courses. (1.2)  
*Course fee*

**HET 111 HVACR Electricity I (2-4) 4 Hours**

This course introduces students to basic AC and DC circuitry, the laws of electricity, wiring of basic HVACR equipment, and safety procedures with an emphasis placed on sustainable energy sources through the use of lectures, demonstrations, and lab experiences. The function and operational characteristics of various types of electric controls including thermostats, defrost controls, relays, and contactors are studied, along with capacitors, power distribution, motors, and protective devices. This course introduces the National Electrical Code, the use of meters, schematics, wiring diagrams, electrical troubleshooting, electrical service procedures and electrical test equipment.  
*Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)  
*Course fee*

## Course Information and Descriptions

### **HET 119 HVACR Electricity II (2-4) 4 Hours**

This course covers intermediate AC and DC circuitry, the laws of electricity, wiring of HVACR equipment, and safety procedures with an emphasis placed on sustainable energy sources. Through lectures, demonstrations, and lab experiences, students will learn about various types of residential and commercial heating and air-conditioning, commercial refrigeration electrical service, and installation and preventive maintenance techniques. The function and operational characteristics of various types of electric controls will be covered including thermostats, defrost controls, relays, contactors, capacitors, power distribution, motors, system malfunction diagnosis, corrective procedures, and protective devices. This course also introduces part-winding starts, Wye and Delta wound transformers, programmable controllers, Electronically Commutated Motors (ECM), and Variable Frequency Drive motors (VFD). The National Electrical Code is reinforced, as well as the use of meters, schematics, wiring diagrams, electrical troubleshooting, electrical service procedures, and electrical test equipment.

*Note:* Students will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* HET 110 and HET 111

*Course fee*

### **HET 130 Heating I Residential Appliances (2-4) 4 Hours**

This course introduces students to the basic principles, practices, operations, service and installation of residential heating equipment through the use of lectures, demonstrations, and lab experiences. The function and operational characteristics of residential heating equipment, its wiring, and safety procedures are studied. Electric controls such as thermostats, defrost controls, relays, and contactors are studied, as well as capacitors, power distribution, motors, protective devices, system malfunction diagnosis, corrective procedures, and the refrigerants used in residential heating. This course also introduces a basic understanding of load calculations, the installation and service of residential heating appliances, ventilation requirements, and piping techniques. This course reinforces the use and operation of electrical and mechanical test equipment, wiring diagrams and schematics, service manifolds, test equipment, flaring, soldering and brazing skills.

*Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* HET 110 and HET 111

*Course fee*

### **HET 135 Plumbing and Pipefitting I (2-2) 3 Hours**

This course introduces students to blueprint drawings and detail sheets; piping system standards and specifications; and trade math. Students will be exposed to advanced blueprint reading examples, as well as motorized equipment and above ground pipe installation. (1.2)

*Prerequisite:* HET 110

*Course fee*

### **HET 136 Plumbing and Pipefitting II (2-2) 3 Hours**

This course is a continuation of HET 135. The course also introduces students to pipe hangers and supports, identifying and installing valves, field routing and vessel trim, spring can supports, planning work activities and performing non-destructive examination testing. (1.2)

*Prerequisite:* HET 135

*Course fee*

### **HET 150 Air Conditioning I Split-Systems (2-4) 4 Hours**

This course introduces students to the basic principles, practices, operations, service and installation of split-system residential and commercial cooling equipment, as well as industrial refrigeration equipment. The function and operational characteristics of various types of air conditioning and refrigeration equipment, the wiring of split-system equipment, and safety procedures are also studied. Students will be exposed to topics such as electric controls such as thermostats, defrost controls, relays, and contactors, as well as capacitors, power distribution, motors, protective devices, system malfunction diagnosis, corrective procedures, and the refrigerants used in the split-system industry. This course reinforces the use and operation of electrical and mechanical test equipment, wiring diagrams and schematics, service manifolds, test equipment, flaring, soldering and brazing skills.

*Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* HET 110 and HET 111

*Course fee*

*Typically offered summer only*

### **HET 155 HVAC/R Blueprint Reading (1-0) 1 Hour**

This course introduces students to how blueprints are structured and the conventions that are used in making them and reading them for the HVAC/R field. These principles are then applied to detail drawings and assembly drawings of mechanical equipment found in the HVAC/R field. Special features of blueprints in applications ranging from sheet metal work through electrical and air conditioning work are addressed. This course concludes with information on how to sketch in the style of a blueprint to convey information simply and completely for the HVAC/R field. (1.2)

### **HET 170 Refrigeration I Small Appliances (2-4) 4 Hours**

This course introduces students to the service needs of the small refrigeration appliance industry. Through lectures, demonstrations, and lab experiences, students will learn how to service domestic refrigerators, freezers, and icemakers and to install and service water coolers, vending machines, and under-the-counter refrigeration units. The function and operational characteristics of various types of electric controls including thermostats, defrost controls, relays, and protective devices will be studied, as well as system malfunction diagnosis, corrective procedures, and the refrigerants used in the small refrigeration appliance industry. The course also reinforces the use and operation of electrical and mechanical test equipment, wiring diagrams and schematics, service manifolds, test equipment, flaring, soldering and brazing skills.

*Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* HET 110 and HET 111

*Course fee*

### **HET 172 Refrigeration II Commercial Appliances (2-4) 4 Hours**

This course introduces students to the basic principles, practices, operations, service, and installation of commercial refrigeration appliances. Students will learn how the product is cooled, desired temperature maintained, and proper humidity conditions controlled. The function and operational characteristics of various types of electric controls including thermostats, defrost controls, relays, and protective devices are studied, as well as system malfunction diagnosis, corrective procedures, and the refrigerants used in the commercial refrigeration appliance industry. This course also covers a basic understanding of commercial refrigeration appliances,

multiple systems, load calculations of commercial refrigeration appliances, system accessories, and piping techniques. This course reinforces the use and operation of electrical and mechanical test equipment, wiring diagrams and schematics, service manifolds, test equipment, flaring, soldering and brazing skills.

*Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* HET 110 and HET 111

*Course fee*

### **HET 190 EPA Certification Preparation (1-2) 2 Hours**

This course introduces students to basic refrigeration, theory, and practice of the EPA mandated Section 608 Refrigeration Certification exam. The function and operational characteristics of the mechanical refrigeration system including condensers, evaporators, compressors, refrigerant metering devices, and sustainable energy sources refrigerants are covered, as well as material pertinent for students to pass the EPA exam. This course also introduces ozone depletion, the Clean Air Act, the Montreal Protocol, CFC and HCFC refrigerant replacements, recovery cylinders, shipping and transportation of refrigerants, system operational pressures, substitute refrigerant replacement, recharging techniques, refrigerant recovery and reclaiming, and basic system troubleshooting. This course reinforces the use and operation of service manifolds, leak detection, test equipment, flaring, soldering and brazing skills.

*Note:* The student will be required to purchase basic hand tools that will be used in this and other refrigeration and air conditioning courses. (1.2)

*Corequisite:* HET 110 or Consent of Instructor

*Course fee*

### **HET 191 HVACR Load Calculation (2-4) 4 Hours**

This course introduces students to the standards for producing HVACR equipment sizing load calculations. The course details proper procedure required to complete a residential or commercial load calculation performed in accordance with the Air-Conditioning Contractors of America (ACCA) as required by national building codes and by most state and local jurisdictions. Residential HVAC appliances, commercial HVAC appliances, and commercial refrigeration appliances and their associated sub-systems are included.

*Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* HET 110 and HET 111

*Course fee*

### **HET 192 HVACR Engineering Tech Practicum (0-15) 1 Hour**

This course is a supervised work experience in the HET program. It incorporates on-the-job training in the greater Lake County area and provides students with an opportunity to demonstrate acquired skills and knowledge, as well as continue their development as professionals. Included will be group seminar sessions with other students and regular meetings with a CLC instructor and HVACR supervisor. (1.2)

*Prerequisite:* HET 110 and HET 111

*Course fee*

### **HET 193 Recertification Preparation (.5-0) 0.5 Hour**

This course is designed for students whose certification has expired or for students who need to re-sit for the EPA Technician Certification Exam or the Industry Competency Exam. This course prepares students with a review of pertinent material prior to the administration of the exams. (1.2)

*Prerequisite:* HET 110 and HET 111 or consent of instructor

*Course fee*

### **HET 194 NATE Certification Preparation (2-0) 2 Hours**

This course prepares students to sit for the North American Technician Excellence (NATE) HVACR Exams. All pertinent material prior to the administration of the exams is reviewed.

*Prerequisite:* Consent of Instructor (1.2)

*Course fee*

### **HET 195 Chicago Stationary Engineer Exam Preparation (1-0) 1 Hour**

This course prepares students to sit for the Chicago Stationary Engineer Exam. Low pressure steam boilers and other pertinent material will be reviewed to help students prepare for the exam. (1.2)

*Corequisite:* HET 110 and HET 119 or consent of instructor

*Course fee*

### **HET 219 HVACR Electricity III (2-4) 4 Hours**

This course covers advanced AC and DC circuitry, the laws of electricity, wiring of HVACR equipment, and safety procedures with an emphasis placed on sustainable energy sources. Through lectures, demonstrations, and lab experiences, students will learn about various types of residential and commercial heating and air-conditioning, commercial refrigeration and electrical service, installation, preventive maintenance techniques, and direct digital controls. The operational characteristics of various types of electric controls including thermostats, defrost controls, relays, and contactors will be covered, as well as capacitors, power distribution, motors, system malfunction diagnosis, corrective procedures, and protective devices. Students will be introduced to part-winding start, Wye and Delta wound transformers, programmable controllers, Electronically Commutated motors (ECM), Variable Frequency Drive motors (VFD), National Electrical Code, the use of meters, schematics, wiring diagrams, electrical troubleshooting, electrical service procedures, and electrical test equipment.

*Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* HET 119 (C or better) AND MTH 114 or higher (C or better) or appropriate score on Math Placement test or Math ACT score of 17 or higher AND College Reading and Writing Readiness

### **HET 230 Air Movement and Ventilation (2-4) 4 Hours**

This course covers intermediate principles, practices, operations, and service of commercial HVAC equipment through the use of lectures, demonstrations, and lab experiences. The function and operational characteristics of various types of residential and commercial HVAC equipment, wiring, and safety procedures are studied, as well as proper methods and techniques involved in the design, sizing and balancing of complete ventilation systems. Electric controls including thermostats, sail switches, relays, contactors, flow switches, power distribution, motors, protective devices, system malfunction diagnosis, corrective procedures, and various fan systems used in the residential and commercial HVAC industry are covered. Air mixing properties, equipment servicing, a basic understanding of load calculations, ducting, fan laws, Indoor Air Quality (IAQ), and piping techniques for residential and commercial HVAC equipment are introduced. This course reinforces ventilation requirements, the use and operation of electrical and mechanical test equipment, wiring diagrams and schematics, service manifolds, test equipment, flaring, soldering and brazing skills.

*Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* HET 119 (C or better) AND MTH 114 or higher (C or better) or appropriate score on Math Placement test or Math ACT score of 17 or higher AND College Reading and Writing Readiness

*Course fee*

## Course Information and Descriptions

### **HET 231 Heating II Hydronic Heating Systems (2-4) 4 Hours**

This course introduces students to the basic principles, practices, operations, service and installation of residential and light commercial boilers through the use of lectures, demonstrations, and lab experiences. The function and operational characteristics of various types of residential and light commercial boilers, their wiring, and safety procedures are studied. Electric controls including thermostats, relays, and contactors are studied, as well as capacitors, power distribution, motors, protective devices, system malfunction diagnosis, corrective procedures, and residential and light commercial boilers. A basic understanding of load calculations and the installation and service of residential and light commercial boilers will be covered, as well as the operation, layout, selection, troubleshooting, venting requirements, and piping techniques. This course reinforces the use and operation of electrical and mechanical test equipment, wiring diagrams and schematics, service manifolds, test equipment, flaring, soldering and brazing skills.

*Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* MTH 114 or higher or appropriate score on Math Placement test or Math ACT score of 17 or higher; AND minimum APT score of 122 or College Reading and Writing Readiness; OR Consent of Instructor

*Course fee*

### **HET 250 Air Conditioning II Commercial HVAC Appliances (2-4) 4 Hours**

This course covers intermediate principles, practices, operations, service and installation of commercial HVAC equipment through lectures, demonstrations, and lab experiences conducted on commercial HVAC equipment. The function and operational characteristics of various types of commercial HVAC equipment, its wiring, and safety procedures are studied. Electric controls including thermostats, defrost controls, relays, and contactors are studied, as well as capacitors, power distribution, motors, protective devices, system malfunction diagnosis, corrective procedures, and the refrigerants used in the commercial HVAC industry. This course also introduces hydronic heating, air mixing properties, installation and service, a basic understanding of load calculations, ducting, fan laws, and piping techniques for commercial HVAC equipment. This course also reinforces ventilation requirements, the use and operation of electrical and mechanical test equipment, wiring diagrams and schematics, service manifolds, test equipment, flaring, soldering and brazing skills.

*Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* HET 150 AND MTH 114 or higher or appropriate score on Math Placement test or Math ACT score of 17 or higher; AND minimum APT score of 122 or College Reading and Writing Readiness; OR Consent of Instructor

*Course fee*

### **HET 251 Sheet Metal Fabrication (0-2) 1 Hour**

This course introduces students to methods of sheet metal fabrication. Content includes laying-out and fabricating sheet metal ducts and fittings used in heating and air conditioning installations. This course emphasizes reading blueprints common to the sheet metal trade, floor plans, elevations, section, detail and mechanical plans. It requires students to develop a layout of an air conditioning duct system and fittings. Fabrication of these parts, including proper use of hand-tools and shop equipment used to fabricate duct systems and fittings will be focus as a main competency. Some of the topics covered will include methods of measurements, layouts, tolerances, allowances for joints, and other fittings. (1.2)

*Prerequisite:* HET 155 (C or better)

### **HET 252 Air Conditioning III Installation & Service (2-4) 4 Hours**

This course covers various types of residential heating and air-conditioning service techniques and installation procedures, including equipment selection, layout, duct fabrication, piping techniques, troubleshooting, codes, preventive maintenance, multiple systems, and system accessories. Students will learn the techniques of the service and installation needs of the residential heating and air-conditioning industry through lectures, demonstrations, and lab experiences. The function and operational characteristics of various types of residential heating and air-conditioning equipment, its wiring, and safety procedures are studied. Electric controls including thermostats, defrost controls, relays, and contactors are studied, as well as capacitors, power distribution, motors, protective devices, system malfunction diagnosis, corrective procedures, and the refrigerants used in the residential heating and air-conditioning industry. Equipment selection, layout, duct fabrication, troubleshooting, codes, preventive maintenance, system balancing, component capacity, multiple systems, system accessories codes, and preventive maintenance concerning residential heating and air-conditioning appliances are also covered. This course reinforces load calculations, ventilation requirements, piping techniques, the use and operation of electrical and mechanical test equipment, wiring diagrams and schematics, service manifolds, test equipment, flaring, and soldering and brazing skills.

*Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* MTH 114 or higher or appropriate score on Math Placement test or Math ACT score of 17 or higher; AND minimum APT score of 122 or College Reading and Writing Readiness; OR Consent of Instructor

*Course fee*

### **HET 272 Refrigeration III Commercial Appliance Installation (2-4) 4 Hours**

This course covers various types of commercial refrigeration service techniques and installation procedures, such as piping techniques, codes, preventive maintenance, multiple systems, and system accessories. The function and operational characteristics of various types of electric controls including thermostats, defrost controls, relays, and protective devices are studied, as well as system malfunction diagnosis, corrective procedures, and the refrigerants used in the commercial refrigeration appliance industry. This course reinforces load calculations, the use and operation of electrical and mechanical test equipment, wiring diagrams and schematics, service manifolds, test equipment, flaring, and soldering and brazing skills.

*Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* HET 172 AND MTH 114 or higher or appropriate score on Math Placement test or Math ACT score of 17 or higher; AND minimum APT score of 122 or College Reading and Writing Readiness; OR Consent of Instructor

*Course fee*

### **HET 273 Direct Digital Controls (2-4) 4 Hours**

This course covers basic commercial control principles and offers students experiences and practice in the selection, installation, operation, and servicing of pneumatic and electronic automation control systems and components used in commercial buildings. Special emphasis will be placed on direct digital control systems (DDC) including troubleshooting, maintenance, and retrofitting.

Students successfully completing this course will be eligible to sit for the Air-Conditioning and Refrigeration Institute (ARI) Industry Competency Exam in Light Commercial Air Conditioning and Heating. (1.2)

*Prerequisite:* HET 119 (C or better) AND MTH 114 or higher (C or better) or appropriate score on Math Placement test or Math ACT score of 17 or higher AND College Reading and Writing Readiness

**HET 290 Building Insulation (2-4) 4 Hours**

This course covers heat flow, building science, building envelope, construction practices, material costs, moisture concerns, proper insulation techniques, and commercial and residential HVAC systems including equipment selection, layout, piping techniques, troubleshooting, codes, preventive maintenance, multiple systems, and system accessories. Students will also learn about building and piping insulating, and residential and commercial insulation codes. *Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* HET 230 AND MTH 114 or higher or appropriate score on Math Placement test or Math ACT score of 17 or higher; AND minimum APT score of 122 or College Reading and Writing Readiness; OR Consent of Instructor

*Course fee*

**HET 291 Energy Auditing (2-4) 4 Hours**

This course covers building energy auditing and associated heating and air-conditioning equipment. The concepts of heat flow, energy audit software, building science, building envelope, construction practices, material costs, moisture concerns, proper insulation techniques, energy pricing, energy modeling, and commercial and residential HVAC systems including equipment selection, layout, piping techniques, troubleshooting, codes, preventive maintenance, multiple systems, and system accessories are covered. The function and operational characteristics of building construction, building materials, various types of commercial and residential heating and air-conditioning equipment, wiring, and safety procedures are studied. Electric controls, thermostats, power distribution, and protective devices are studied, as well as equipment selection, layout, duct design, troubleshooting, and commercial and residential energy usage codes. This course also reinforces load calculations, ventilation requirements, piping techniques, the use and operation of electrical/mechanical test equipment and service manifolds.

*Note:* Student will be required to purchase basic hand tools used in this and other HVACR courses. (1.2)

*Prerequisite:* HET 230 AND MTH 114 or higher or appropriate score on Math Placement test or Math ACT score of 17 or higher; AND minimum APT score of 122 or College Reading and Writing Readiness; OR Consent of Instructor

*Course fee*

**HET 292 RESENT Exam Preparation (1-0) 1 Hour**

This course provides a review of material required to prepare students to take the Residential Energy Services Network's (RESNET®) Quality Assurance Designee Trainer Exam.

*Prerequisite:* Consent of Instructor (1.2)

*Course fee*

**HET 293 HVAC Codes (3-0) 3 Hours**

This course covers the function of HVAC Mechanical Codes including Building Officials and Code Administrators (BOCA) Mechanical Codes, National Fire Protection Association (NFPA) codes, National Fuel Gas Codes, ASHRAE Standard Mechanical Refrigeration Codes, and National Electrical Codes. The course reinforces the requirements placed on contractors and installation personnel involved in the layout and installation of HVACR equipment.

*Note:* The student will be required to purchase basic hand tools that will be used in this and other refrigeration and air conditioning courses. (1.2)

*Prerequisite:* MTH 114 or higher or appropriate score on Math Placement test or Math ACT score of 17 or higher; AND minimum APT score of 122 or College Reading and Writing Readiness; OR Consent of Instructor

**HET 294 Green Building/Energy Sustainability (3-0) 3 Hours**

This course provides an introduction to "Green Building" within the LEED certification process. Other topics related to sustainability will be covered including conservation, insulation, weatherization, and renewable energy technologies such as wind, solar, and geothermal systems. (1.2)

*Prerequisite:* MTH 114 or higher or appropriate score on Math Placement test or Math ACT score of 17 or higher; AND minimum APT score of 122 or College Reading and Writing Readiness; OR Consent of Instructor

*Course fee*

**HET 295 HET Capstone (2-2) 3 Hours**

This course engages students in a capstone experience consisting of a comprehensive heating, ventilation, air conditioning, or refrigeration (HVACR) lab assignment and research project on relevant HVACR topics. The projects offer students the opportunity to synthesize and put into practice the knowledge and skills acquired in all other courses in the HET Program. (1.2)

*Prerequisite:* MTH 114 or higher or appropriate score on Math Placement test or Math ACT score of 17 or higher; AND minimum APT score of 122 or College Reading and Writing Readiness; OR Consent of Instructor

*May be taken four times for credit toward degree*

**HET 299 Special Topics in HVACR (Variable) 0.5-4 Hours**

This course addresses the in-depth study of special topics in HVACR that do not have specific courses in the catalog. Course content will vary depending on the topic being studied. Topics may include current issues in HVACR, new technologies in HVACR, or new information concerning sustainability. Topics will be identified for each section of the course.

*Prerequisite:* Consent of Instructor (1.2)

*Course fee*

*May be taken four times, but any topic only once*

## Health Care Bridge Program (BRGA)

Adult Basic Education, GED® and ESL Division  
Building 4, (847) 543-2021

Adult Education classes are intended for people who live in Lake County. They are not appropriate for students with B1, B2, F1, F2, J1 or J2 visas, nor are they appropriate for short-term visitors to the U.S.

In general, students must be at least 18 years old in order to enroll in adult education classes. However, 16-year-olds and 17-year-olds may register with an official Secondary School Reference Form signed by their local High School authorized representative. U.S. High School graduates and 16-year-olds must meet additional eligibility requirements. New students must attend an orientation session before attending classes.

The Adult Basic Education, GED and ESL Division provides several specific types of educational opportunities and is funded in part by grants from the federal government.

### New Courses

*(Effective Summer 2017) See Addendum*

**BRGA 60 Reading Improvement Early Childhood Education Bridge 0.5-6 Hours**

**BRGA 61 Writing Improvement for Early Childhood Education Bridge 0.5-6 Hours**

**BRGA 40 Introduction to Manufacturing for ELLs (Variable) 0.5-6 Hours**

This course is an exploratory introduction to manufacturing careers. It is for English Language Learners at the High Intermediate or Low Advanced levels of ESL that are interested in transitioning to one of the following career programs: Heating Refrigeration and Air Conditioning, Mechatronics, Welding, Automotive Technician, Automotive Collision Repair, or Computerized Numerical Control. In this course, students will improve their English Language Skills while learning about these various careers. (1.9)

*Corequisite:* ESL 50 or ESL 52

*Course fee*

*May be taken four times for credit*

**BRGA 44 Introduction to Math for Manufacturing (Variable) 0.5-6 Hours**

This course provides an introduction to common applications of mathematics within manufacturing. Students are given opportunities to develop proficiency in arithmetic calculations and to apply mathematical principles for effective on-the-job training applications. The use of mathematical principles and operations as they relate to machine control and repair/fabrication methods is emphasized.

*Prerequisite:* ABE 40 and a score of 7.0 or higher on a standardized testing instrument and teacher recommendation. (1.7)

*Course fee*

*May be taken four times for credit*

**BRGA 45 Introduction to Manufacturing as a Career for ABE (Variable) 0.5-6 Hours**

This course will focus on building the basic reading, vocabulary, measurement and computer skills needed for students interested in entering a manufacturing career cluster course of study. The course will allow students to explore a variety of manufacturing careers through investigation of contextualized readings and activities about topics related to the manufacturing sector.

*Prerequisite:* ABE 40 or students must achieve a 7.0 on the high intermediate level of the current NRS standardized testing instrument.

*Recommended:* Teacher recommendation from an ABE 40 or higher level class will also be considered. (1.7)

*Course fee*

*May be taken four times for credit*

**BRGA 46 Exploring Manufacturing Careers at the College of Lake County (Variable) 0.5-6 Hours**

This course will assist students in examining the components of manufacturing career choices – especially those offered at the College of Lake County. The focus is on manufacturing career awareness, planning skills, decision-making processes and a self-assessment instrument to help identify manufacturing career options. In-depth exploration of the programs included in the college's manufacturing careers will provide a foundation for transition to the manufacturing program of choice at the college.

*Prerequisite:* ABE 40 or admission is determined by a 7.0 or higher on a high intermediate standardized test instrument. (1.7)

*Course fee*

*May be taken four times for credit*

**BRGA 50 Reading Improvement Healthcare Bridge (Variable) 0.5-6 Hours**

This course will focus on critical reading skills while preparing for the General Education Development exam and/or the college placement test using contextualized reading materials related to the health field. In addition, this course will prepare students to transition into college entry level allied healthcare coursework. The course will allow students to apply critical inquiry and investigation skills, as well as develop questions and form hypotheses about health care topics and issues through contextualized readings. Topics will include career exploration of the health field, Wellness and Complementary Medicine and Ethics in Healthcare.

*Corequisite:* Must be enrolled in or previously enrolled in ESL 52, or 60, or ABE 38, or ABE 40 or GED 10 or GED 20.

Must have a 6.0 or higher on the Test of Adult Basic Education (TABE) Level D and Department Consent. (1.8)

*Course fee*

*May be taken four times for credit*

**BRGA 51 Writing Improvement Healthcare Bridge (Variable) 0.5-6 Hours**

This contextualized writing course focuses on writing skills for the GED exam and for entering into the healthcare field or in college level health care coursework. Students will be writing multiple draft essays, answering exams in brief essay writings, and developing mini research reports. Grammar is applied and focuses on editing and proofreading needed in academic writing. Topics for writing will be based on readings from current health care issues and discussions.

*Corequisite:* Must be enrolled in or previously enrolled in ESL 52, or 60, or ABE 38, or ABE 40 or GED 10 or GED 20. Must have a 6.0 or higher on the Test of Adult Basic Education (TABE) Level D and Department Consent. (1.8)

*Course fee*

*May be taken four times for credit*

**BRGA 52 Social Sciences Healthcare Bridge (Variable) 0.5-6 Hours**

This course will focus on critical reading skills in the social sciences while preparing for the General Education Development exam and/or the college placement test using contextualized reading materials related to the healthcare field. In addition, this course will prepare students to transition into college entry level allied healthcare coursework. The course will allow students to apply critical inquiry and investigative skills, as well as develop questions and form hypotheses about various social science healthcare topics; Discussions and case studies will be reviewed through contextualized readings. Graphics will be used to predict outcomes to improve visual literacy skills.

*Corequisite:* Must be enrolled in or previously enrolled in ESL 52, or 60, or ABE 38, or ABE 40 or GED 10 or GED 20. Must have a 6.0 or higher on the Test of Adult Basic Education (TABE) Level D and Department Consent. (1.8)

*Course fee*

*May be taken four times for credit*

**BRGA 53 General Science Health Care Bridge (Variable) 0.5-6 Hours**

This course will focus on critical reading skills in the general sciences with a major focus on Life Science, while preparing students for the General Education Development exam and/or the college placement test using contextualized reading materials. In addition, this course will prepare students to transition into college entry-level allied healthcare coursework.

*Corequisite:* Must be enrolled in or previously enrolled in ESL 52, or 60, or ABE 38, or ABE 40 or GED 10 or GED 20. Must have a 6.0 or higher on the Test of Adult Basic Education (TABE) Level D and Department Consent. (1.8)

*Course fee*

*May be taken four times for credit*

**BRGA 54 Practical Mathematics Health Care Bridge (Variable) 2-5 Hours**

This is a contextualized course in mathematics designed to prepare students for health care occupations and college level allied health courses while preparing for the GED exam. The course will review whole numbers, common fractions, decimals, metrics, and basic algebra and geometry. In addition, it will review graphs and diagrams that are used in health care, and students will be asked to apply data, statistics and probability skills to solve the problems. Students will also learn how to solve word problems that apply to a variety of health care topics. (1.8)

*Course fee*

*May be taken four times for credit*

**BRGA 55 Job Readiness Health Care Bridge (3-0) 3 Hours**

The Job Readiness Class for Health Care Bridge focuses on preparing Adult Education students for careers in the field of health care and college level courses. This course will focus on career exploration, and standards and expectations for working in the allied health field and participating in college level courses. It will emphasize basic computer skills needed for work including the importance of data entry and the use of data trends for diagnosis. The course will focus on team activities requiring communication and listening effectively and developing critical thinking and problem solving skills for the work place. (1.8)

*Course fee*

*May be taken four times for credit*

**BRGA 56 Study Skills Health Care Bridge (Variable) 2-6 Hours**

Study Skills class for Health Care Bridge focuses on preparing Adult Education students for college level courses in the Allied Health Department. The course will focus on understanding how college courses are organized and what teacher's general expectations are. It will describe how to use a syllabus, how to plan homework assignments, and how to prepare for tests. Note taking from lectures and from texts will be included. Reading for content knowledge will be emphasized. In addition, it will cover various examination processes including essay exams, pop tests, and finals. (1.8)

*Course fee*

*May be taken four times for credit*

## Health Information Technology (HIT)

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

**HIT 111 Medical Terminology (3-0) 3 Hours**

This course introduces students to medical terminology used in the healthcare field. Emphasis is on word construction using prefixes, roots, and suffixes. Definitions, spelling, pronunciation, and abbreviations are also included. (1.2)

*Prerequisite:* College Reading and Writing Readiness

**HIT 113 Ethical and Legal Aspects of Medical Records (2-0) 2 Hours**

This course introduces students to legal and ethical issues applicable to health information. State and Federal laws on privacy, confidentiality, and release of information relative to the health record are studied. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Typically offered spring only*

**HIT 115 Fundamentals of Health Information Technology (2-2) 3 Hours**

This course introduces students to the healthcare delivery system, regulations and standards, and the health information department and profession. Health data content and structure as well as the application of techniques to ensure quality documentation for all types of healthcare facility records are also introduced. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

*Typically offered fall only*

**HIT 117 Basic CPT Coding (2-2) 3 Hours**

This course introduces students to the theory, structure, and organization of the Current Procedural Terminology (CPT) coding system. Emphasis will be on the application of coding principles to accurately assign CPT codes to health records. The role of CPT codes in billing and reimbursement will be included. (1.2)

*Prerequisite:* HIT 111 (C or better)

*Corequisite:* BIO 111 or BIO 245 (both C or better)

*Course fee*

## Course Information and Descriptions

- HIT 119 Pharmacology (1-0) 1 Hour**  
This course introduces students to pharmacology. Content includes terminology, drug classifications, therapeutic use, side effects, contraindications and interactions. Common dosage ranges and routes of administration will also be discussed. (1.2)  
*Prerequisite:* College Reading and Writing Readiness
- HIT 131 Basic ICD-10-CM Coding (2-2) 3 Hours**  
This course introduces students to the ICD-10-CM classification system with an emphasis on the application of coding guidelines used to accurately assign diagnostic codes in all healthcare settings. The impact of proper code assignment and its relationship to billing and reimbursement will be addressed. ICD-9-CM will be discussed as a legacy system. (1.2)  
*Prerequisite:* HIT 111 (C or better)  
*Corequisite:* BIO 111 or BIO 245 (both C or better)  
*Course fee*
- HIT 132 Basic ICD-10-PCS Coding (1-2) 2 Hours**  
This course introduces students to the ICD-10-PCS classification system with an emphasis on coding guidelines used to accurately assign procedure codes in the hospital setting. The impact of proper code assignment and its relationship to billing and reimbursement will be addressed. ICD-9-CM will be discussed as a legacy system. (1.2)  
*Prerequisite:* BIO 111 or BIO 245 AND HIT 111 (all C or better)  
*Course fee*  
*Typically offered fall only*
- HIT 171 Insurance Procedures for the Medical Office (3-0) 3 Hours**  
This course introduces students to health records and insurance processing procedures in the medical office. Emphasizes the relationship between health information and billing procedures. Brief overview of hospital billing is included. (1.2)  
*Prerequisite:* College Reading and Writing Readiness
- HIT 212 Professional Practice Experience in Health Information Technology I (1-15) 4 Hours**  
This course is the first of a two semester sequence of supervised clinical experience in health facilities.  
*Note:* A satisfactory health screening, background check, and drug screen must be on file with the college prior to the clinical affiliation. The student will be responsible for his/her transportation to and from the health facility. The student must be enrolled in his/her final Fall semester in the HIT program. Assignments and schedules may vary by facility. (1.2)  
*Prerequisites:* HIT 113 and HIT 115 (both C or better), and admission into the HIT program  
*Course fee*  
*Typically offered fall only*
- HIT 213 Professional Practice Experience in Health Information Technology II (.5-7.5 hours) 2 Hours**  
This course is the second of a two semester sequence of supervised clinical experience in various areas pertaining to health information.  
*Note:* A satisfactory health screening, background check, and drug screen must be on file with the college prior to the clinical affiliation. The student will be responsible for his/her transportation to and from the health facility. The student must be enrolled in his/her final Spring semester in the HIT program. Assignments and schedule may vary by facility. (1.2)  
*Prerequisite:* HIT 212 (C or better)  
*Corequisite:* HIT 218 (C or better)  
*Course fee*  
*Typically offered spring only*
- HIT 215 Medical Science (2-2) 3 Hours**  
This course introduces students to human conditions and diseases of all body systems. Emphasis is on etiology, manifestations, method of diagnosis, and treatment. (1.2)  
*Prerequisite:* HIT 111 (C or better)  
*Course fee*  
*Typically offered fall only*
- HIT 217 Health Information Systems and Data Literacy (2-2) 3 Hours**  
This course introduces students to health information systems concepts including selection and implementation, data quality, storage and retrieval, and security and privacy. Electronic health record concepts and HIM applications are discussed. (1.2)  
*Prerequisite:* HIT 115 (C or better) and admission into the HIT program  
*Course fee*  
*Typically offered spring only, even years only*
- HIT 218 Seminar in Health Information Technology (2-0) 2 Hours**  
This course requires students to apply the academic knowledge acquired in the HIT curriculum to specific challenges encountered in the health information management workplace. The focus is on critical thinking, problem-solving, teamwork, and ethics. It also includes a review of HIT content areas with strategies for preparing for the national exam. Additionally students will select a health information topic of interest, summarize a literature search in a written report, and present the substance of the study orally. (1.2)  
*Corequisite:* HIT 213 (C or better)  
*Typically offered spring only*
- HIT 231 Leadership and Management in Health Information Management (1-2) 2 Hours**  
This course introduces students to the basic principles of supervision as applied to the health information profession. The elements and concepts related to leadership and organizational management including human, financial, and physical resources are included. (1.2)  
*Prerequisite:* HIT 115 (C or better) and admission into the HIT program  
*Course fee*  
*Typically offered spring only, odd years only*
- HIT 232 Quality Management and Healthcare Statistics (2-2) 3 Hours**  
This course introduces students to the principles of quality management. Content includes quality assessment and management, risk and utilization management, and credentialing. The collection, preparation, and analysis and interpretation of healthcare statistics are also introduced. The functions and uses of registries, with emphasis on the cancer registry, are studied. (1.2)  
*Prerequisite:* HIT 115 (C or better) and admission into the HIT program  
*Course fee*  
*Typically offered spring only, odd years only*

**HIT 271 Advanced Coding (1-2) 2 Hours**

This course explores the more complex areas of ICD and CPT coding introduced in previous coding courses. Students will apply coding principles and guidelines related to complex diagnoses and procedures. Coding from actual patient records is emphasized. The use of coding references and coding software is integrated into the course. (1.2)

*Prerequisite:* HIT 117, HIT 131, HIT 132, and HIT 215 (all C or better)

*Course fee*

*Typically offered spring only*

**HIT 272 Reimbursement Systems in Healthcare (1-2) 2 Hours**

In this course students will learn the history, rationale, and methodology of the systems used by third-party payers to determine the reimbursement that health care providers will receive. Reimbursement concepts include fee-for-service, managed care, capitation systems, Diagnosis-Related Groups (DRGs), Resource Based Relative Value Scale (RBRVS), Ambulatory Payment Classifications (APCs) and related concepts. The use of the charge description master (chargemaster) in reimbursement will be discussed. The importance of compliance with regulations and the related issues of fraud and abuse will also be addressed. (1.2)

*Prerequisites:* HIT 115 (C or better) AND one coding course (HIT 117, HIT 131, HIT 132) (C or better) AND admission into the HIT program

*Corequisite:* A second coding course (HIT 117, HIT 131, HIT 132) (C or better)

*Typically offered spring only, even years only*

**HIT 299 Special Topics: HIT (Variable) 1-3 Hours**

This course is designed to meet the needs of students for specialized instruction in current health information technology topics. Course content will vary depending on the topic being studied.

*Prerequisite:* Will vary depending on topic. Consent of the department required. (1.2)

*May be taken three times, but any topic only once*

## Health and Wellness Promotion (HWP)

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

**HWP 160 Yoga I (0-2) 1 Hour**

This activity course introduces students to the art and science of yoga. Emphasis is placed on basic yoga postures (asanas) and accompanying breathing techniques commonly found in Hatha Yoga and other styles. Students will experience many benefits including enhanced muscle tone, flexibility, and relaxation for the body and mind.

HWP 160 and PED 160 are cross-listed. (1.1)

**HWP 240 Contemporary Health Issues (3-0) 3 Hours**

This course is a survey of issues related to holistic health as they pertain to personal growth and quality of life. Emphasis is placed upon behavioral changes and strategies for lifetime wellness. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**HWP 257 Health and Wellness Practicum I (0-5) 1 Hour**

This course will introduce students to the process of structured field observation. Opportunities will focus on careers in health and wellness promotion. Regular contact time with an instructor will also be provided. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

**HWP 258 Health and Wellness Practicum II (0-5) 1 Hour**

This course will introduce students to supervised competency-based practice in health and wellness. This on-the-job training in the greater Lake County area provides students with the opportunity to demonstrate acquired skills and knowledge and to continue to develop as a professional. Included will be group seminar sessions with other students and regular meetings with the CLC instructor/supervisor. (1.2)

*Prerequisite:* HWP 257 (C or better) and Consent of Instructor

*Course fee*

**HWP 260 Sport and Exercise Nutrition (3-0) 3 Hours**

*Course modification effective Fall 2017. For details, refer to addendum.*

This course will introduce students to the relationship between fundamental nutrition principles and sport and exercise science. The efficacy of performance-based dietary supplements and related ethical issues will also be explored. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* HCM 175 (C or better)

**HWP 290 Principles of Wellness Coaching (3-0) 3 Hours**

This course will explore the six dimensions of contemporary health as they specifically apply to the wellness coaching continuum.

Theoretical coaching constructs will be introduced and practical application will be encouraged through a variety of class activities. (1.2)

*Prerequisite:* College Reading and Writing Readiness

**HWP 299 Special Topics: Health and Wellness Promotion (Variable) 1-4 Hours**

This course is designed to provide students with an in-depth study of special topics in health and wellness. Course content and requirements will vary depending on the topic studied. Additionally, this course may be taken up to four times for credit toward degree. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*May be taken four times, but any topic only once*

## History (HST)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

**HST 121 History of Western Civilization to 1500 (3-0) 3 Hours**

This course is an historical survey of the ancient civilizations of Egypt, Greece, and Rome, through the Middle Ages to the Renaissance. Emphasis is placed on cultural developments, political trends, and economic and social issues that have influenced the direction of Western Civilization. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

**IAI: S2 902**

## Course Information and Descriptions

### **HST 122 History of Western Civilization From 1500 (3-0) 3 Hours**

This course is an historical survey from absolutist monarchy through the French Revolution, Industrialization, and 20th century ideological conflicts and wars. Emphasis is placed on the shaping of contemporary ideas, values, institutions, and the impact of technology. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: S2 903**

### **HST 123 Modern Europe I (3-0) 3 Hours**

This course surveys the making of the modern mind and the Age of Revolutions. Emphases are placed on the Age of Reason, French Revolution and growth of modern democracy, liberalism, socialism, and nationalism. (1.1)

*Prerequisite:* College Reading and Writing Readiness

### **HST 124 Modern Europe II (3-0) 3 Hours**

This course surveys Europe with its world impact in the 20th century. Emphases are placed on intellectual modernism, totalitarianism, world wars, ideologies in conflict and global national interaction. (1.1)

*Prerequisite:* College Reading and Writing Readiness

### **HST 126 History/Non-Western World Since 1500 (3-0) 3 Hours**

This course is a survey of the history of Contemporary Non-Western Civilization and examines the historical roots and modern history of the following areas: The Far East, Southeast Asia, the Sub-continent and the Middle East. The course will include historical origins of the nations covered but will focus on their history from the late 19th century to the present. This course fulfills the CLC International/Multicultural Education requirement. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: S2 905N**

### **HST 127 History of Chinese Culture and Society (3-0) 3 Hours**

This course is intended to provide students with an introduction to Chinese culture by studying social and cultural awareness of contemporary Chinese reality with a global, historical context. History, geography, political and economic structure and function in the world are examined through social organization and cultural institutions. This course fulfills the CLC International/Multicultural Education requirement. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: S2 914N**

### **HST 128 Modern History of the Middle East (3-0) 3 Hours**

This course will trace the history of the Middle East from the period of the Ottoman Empire to the Present. Students will study the influence of the Ottomans on the Middle East and how the decline of this once great empire paved the way for European penetration. In the process, they will critically examine how and why Europeans created new dynasties and nations in the post World War I & II periods and how these creations have contributed to the instability that now exists in the Middle East. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: S2919N**

### **HST 129 Women in History (3-0) 3 Hours**

This course is an historical and humanistic survey of famous and obscure women from ancient times to the modern world. Its emphases are the status and treatment of women through the ages and factors that have defined and altered this status. (1.1)

*Prerequisite:* College Reading and Writing Readiness

### **HST 141 World History to 1500 (3-0) 3 Hours**

This course surveys the economic, social, cultural and political history of the major settled regions of the world, including the Americas, Asia, Australasia, Africa, Europe and the Middle East from prehistory to 1500, paying particular attention to the ways in which societies organize themselves and interact with each other. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

### **HST 142 World History From 1500 (3-0) 3 Hours**

This course will examine the development of the modern world, focusing on cross-cultural exchange between the various regions, since 1500. Themes studied will include the influence of religion, culture and conquest on the Americas, Asia, Africa, Oceania and the Middle East as well as the increasing conflicts between peoples and regions of the world. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

### **HST 221 United States History to 1876 (3-0) 3 Hours**

This course is a survey of American history from the pre-Columbian era to the end of Reconstruction. The topics to be explored and examined are: Pre-Columbian Americans, the age of European exploration and colonization in the Americas, the rise of African slavery and the Atlantic trade, British Colonial America, the American move to Independence and the establishment of the United States, the Early Republic and the Age of Jackson, Westward Expansion and Sectionalism, and lastly the Civil War and Reconstruction. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: S2 900**

### **HST 222 United States History 1876 to Present (3-0) 3 Hours**

This course is a continuation of HST 221 - US History to 1876. It is an interpretative survey of social, economic, political, diplomatic, and cultural developments of the United States since 1876. Topics covered include the impact of industrialism, urbanization and immigration, overseas expansion, World Wars I and II, economic growth and depressions, development of a consumer culture, modern culture and the arts, the Cold War, suburbanization, civil rights protests and progress, politics and the evolution of liberalism and conservatism, continued overseas conflicts and wars, and the emergence of an information economy/society. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: S2 901**

### **HST 223 American Popular Culture (3-0) 3 Hours**

American Popular Culture is a survey of 20th century American culture and social history as reflected in popular movies, music, and general popular expression. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**HST 225 American Labor History (3-0) 3 Hours**

This course is a survey of American labor history from the colonial era to the present. Following a chronological approach, the course will cover the development of the system of labor in America, the factors affecting changes in the system, the emergence and growth of labor organizations, the role of labor organizations in the economic and political order, and the challenges confronting labor and labor organizations in a changing economic order. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**HST 226 United States History from 1945 (3-0) 3 Hours**

This course provides a topical and thematic approach to post World War II United States History. Among the topics and themes to be covered include: Cold War foreign policy and fears at home; suburbanization and mass consumer culture; the changing politics and meaning of liberalism and conservatism; social movements of the Left and Right; changes in immigration, ethnicity, race, and gender; accelerating technological innovation; and the impact of globalization. The main emphases of the course are the intersection of political economy, culture, and society at home and the evolution of America's role abroad. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**HST 240 Afro-American History I (3-0) 3 Hours**

This course surveys the African origins of African Americans, the African Diaspora, the role played in colonial America, slavery, the U.S. Civil War and Reconstruction. Emphasis is on the African Americans' contributions to America's development. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**HST 241 Afro-American History II (3-0) 3 Hours**

This course surveys the role of African Americans in the United States from the end of Reconstruction to the present. Emphasis is on the contributions to America's development and the problems encountered. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**HST 242 History of Chicago (3-0) 3 Hours**

This course is a historical survey of the Chicago region from the colonial era thru the present. The course will cover such topics as frontier expansion, ecological change, commerce, city planning, industrialization, labor conflict, the immigrant adjustment, neighborhoods, the political machine, the battle for municipal reform, rise of the ghetto, suburbanization, gentrification, the legacy of the Daley machines, and Chicago's contributions to culture and the arts. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**HST 245 History of Latin America to 1825 (3-0) 3 Hours**

This course provides an introduction to the formation of Latin American society during the colonial period, from the European conquest to the independence of the Iberian colonies. It examines the processes of conquest and colonization, the organization of the Spanish and Portuguese empires in America, and Indian and African resistance and accommodation, in comparative perspective. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: S2910N**

**HST 246 History of Latin America from 1825 (3-0) 3 Hours**

This course provides an introduction to Latin American history after independence, from the consolidation of the national states to the 1980s. By focusing on the cases of Argentina, Brazil, Cuba, and Mexico, within the broader regional context, it examines significant

social, political, and economic developments of modern Latin America. (1.1)

*Prerequisite:* College Reading and Writing Readiness  
*Fulfills the CLC I/M Education Requirement.*

**IAI: S2911N**

**HST 269 The History of the Second World War (3-0) 3 Hours**

This course will examine the causes, course and end of the Second World War, studying the origins of the war in Europe and Asia; examining the effects of the war on belligerent, occupied, and neutral nations and regions globally as well as the effects of the war in various areas including society, politics and culture. (1.1)

*Prerequisite:* College Reading and Writing Readiness  
*Fulfills the CLC I/M Education Requirement.*

**HST 299 Special Topics in History (Variable) 1-3 Hours**

This course addresses the in-depth study of special topics in history, which do not have specific courses in the catalogue. Course content will vary depending on the topic being studied, but could include the History of Chicago or The History of the Modern Middle East. (1.2)

*Prerequisite:* College Reading and Writing Readiness  
*May be taken four times, but any topic only once*

## Horticulture (HRT)

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

**HRT 121 Introduction to Horticulture (3-0) 3 Hours**

This course introduces students to basic plant taxonomy, terminology, anatomy, physiology and the functions/responses of plants. Professions working with the culture and use of plants and applications of plant science will be included. (1.1)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 AND a score of 34 or higher on the Math Placement Test or Basic Algebra Readiness

**IAI: AG 905**

**HRT 124 Introduction to Soils (2-4) 4 Hours**

This course introduces students to the science and function of native and artificial soils as they relate to plants and the environment. Topics on formation, physical characteristics, nutrient content and availability, water movement, taxonomy and biota interactions are covered. (1.1)

*Corequisite:* HRT 121 (C or better)

*Recommended:* CHM 140

*Course fee*

*Typically offered fall and summer only*

**HRT 125 Tree and Shrub Identification (2-2) 3 Hours**

This course covers the identification of deciduous and evergreen trees and shrubs by their common and botanic names. Emphasis is placed on trees and shrubs commonly used in the landscape and their key characteristics. Approximately 240 trees will be covered in this course. (1.1)

*Course fee*

*Typically offered fall only*

## Course Information and Descriptions

### **HRT 126 Entomology (2-2) 3 Hours**

This course introduces students to the importance of insects to humans. Topics include insect biology, principles of pest management, natural and applied insect control, and insect pests of vegetables, fruit, and ornamental plants. Laboratory includes observation, identification, and diagnosis of insect plant pests. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Corequisite:* HRT 121 (C or better)

*Course fee*

*Typically offered fall and summer only*

### **HRT 127 Perennials, Annuals and Weeds (2-2) 3 Hours**

This course covers the identification, care, and maintenance of herbaceous plants including perennials, annuals, ornamental grasses, vines, groundcovers and weeds. Approximately 600+ plants will be covered in this course. Students will review materials through photo and herbarium samples. (1.1)

*Course fee*

*Typically offered spring only*

### **HRT 129 Plant Pathology (2-2) 3 Hours**

An introductory course in plant pathology covering the biology and management of agents causing disease and growing disorders.

Students study these agents and the problems that they cause, along with possible management tools. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Corequisite:* HRT 121 (C or better)

*Course fee*

*Typically offered spring only*

### **HRT 140 Landscape Graphics (2-2) 3 Hours**

This course introduces students to the methods used to visually communicate existing and desired information to create a landscape design. The course also covers the process of gathering information about site constraints and client needs to develop these drawings. (1.1)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 AND a score of 34 or higher on the Math Placement Test or Basic Algebra Readiness

*Course fee*

*Typically offered fall only*

### **HRT 150 Landscape Maintenance (2-2) 3 Hours**

This course is designed for students interested in and/or presently working in the field of landscape care and maintenance. Included topics are pruning, fertilizing and planting of trees and shrubs, general turf care, and pest identification and control. (1.2)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 AND a score of 34 or higher on the Math Placement Test or Basic Algebra Readiness

*Course fee*

*Typically offered fall only*

### **HRT 160 Business Issues in Horticulture (3-0) 3 Hours**

This course addresses the fundamental business skills needed to run or manage a horticulture-related business. Issues including establishing wholesale accounts with growers, hiring and managing seasonal employees, creating client contracts and billing statements, responding to “requests for proposals” and the bidding process will be covered. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Typically offered spring only*

### **HRT 165 Small Engine Repair and Maintenance (2-2) 3 Hours**

This course explores the proper use, maintenance, and basic repair of power equipment used in horticulture. Emphasis will be on two- and four-cycle engines used to operate such equipment. (1.1)

*Course fee*

### **HRT 221 Plant Propagation (2-2) 3 Hours**

This course focuses on the techniques and procedures involved in propagating plants. Sexual and asexual methods are practiced along with environmental conditions needed to promote growth and development. Seed propagating and grafting will be included. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND HRT 121 (C or better)

*Course fee*

*Typically offered spring only*

### **HRT 222 Greenhouse Crop Production and Management (2-2) 3 Hours**

This course covers the production of greenhouse crops, the cultural practices required for growth and the management of greenhouse production facilities. Seeding, watering, fertilization, containers, growing medias, temperature control, and insect and disease control will be covered. Bedding plants and containerized crops will be grown throughout the semester. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND HRT 121 (C or better)

*Recommended:* BIO 222

*Course fee*

*Typically offered spring only*

### **HRT 228 Nursery Production (2-2) 3 Hours**

This course addresses the principles and practices of nursery production and management, and how these have changed over recent years to reflect environmental sustainability in the green industry. Course will include production techniques for traditional nursery crops as well as native species, and will include fieldwork at campus growing facilities. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND HRT 121 (C or better)

*Course fee*

*Typically offered fall only*

### **HRT 229 Organic Growing and Sustainable Practices (3-0) 3 Hours**

This course explores the requirements for USDA organic certification, the growth in “organic” strategies for a variety of horticultural production areas, the expansion of small organic growing operations catering to local markets, and how sustainability concerns are changing the green industry. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND HRT 121 (C or better)

*Typically offered fall only*

### **HRT 240 Landscape Design (2-2) 3 Hours**

This course introduces students to design concepts and practical approaches for residential landscape design. Students take a variety of design projects from concept through final presentation. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND HRT 140 (C or better)

*Recommended:* HRT 125 (C or better) OR HRT 127 (C or better)

*Course fee*

*Typically offered spring only*

**HRT 245 Computer Landscape Design (2-2) 3 Hours**

This course introduces students to the use of AutoCAD for site planning, and to landscape design module aids for the creation of landscape design plans. Emphasis is placed on practical application of software and hardware to develop working drawings for the landscape industry. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND HRT 140 (C or better)

*Course fee*

*Typically offered spring only*

**HRT 260 Landscape Construction (2-2) 3 Hours**

This course explores the practical, hands-on installation of landscape features. Project organization, job set up, and construction methods will be covered. Students will be assigned projects that will include design specifications and cost estimates. How to handle equipment and participation in actual construction tasks are included. (1.1)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100 AND a score of 34 or higher on the Math Placement Test or Basic Algebra Readiness

*Course fee*

*Typically offered fall only*

**HRT 265 Urban Forestry Management (2-2) 3 Hours**

This course covers the care and maintenance of trees in urban/suburban settings. Tree identification, care and pruning are covered, as well as special topics of concern to urban foresters like pollution and compaction tolerances, tree preservation ordinances, and invasive pests. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Corequisite:* HRT 121 (C or better)

*Recommended:* HRT 125

*Course fee*

*Typically offered spring only*

**HRT 280 Horticulture Practicum (Variable) 1-3 Hours**

This course is a special project arranged by the HRT faculty member and student or work experience, and addresses a specific area of interest to the student. Lecture/lab ratio is variable depending upon the extent of project and time committed. (1.1)

*Prerequisite:* Completion of at least 12 credit hours in Horticulture (C or better) and consent of instructor

**HRT 282 Seminars in Horticulture (1-0) 1 Hour**

This is a capstone course for horticulture majors. It addresses current environmental trends in the green industry by exploring the qualifications and credentials needed for various career specialties. Guest speakers include a range of representatives from green industry specialties as researched by the students. Additional topics include job readiness, resume preparation and interview skills. (1.1)

*Prerequisite:* Completion of at least 12 credit hours in Horticulture (C or better)

*Typically offered fall only*

**HRT 285 Sustainable Landscapes (3-0) 3 Hours**

This class will explore greenroof systems, living walls, gray water catchment systems, rain gardens, bioswales, water quality treatment with plants, phytoremediation (plants) and mycoremediation (fungi) techniques for treating contaminated soils, and a number of other approaches to create more sustainable landscapes and green infrastructure. Students will gain an understanding of how these approaches work, what is involved to design and build them, and

how to assess construction materials and costs. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND a score of 34 or higher on the Math Placement Test or Basic Algebra Readiness

*Typically offered spring only*

**HRT 286 Natural Areas Management (2-4) 4 Hours**

This course provides an overview of natural areas restoration and management issues for the Midwest region. Major plant communities for this region such as wetland, prairie, savanna and woodland will be addressed in terms of their ecology, key identifying features, management issues and restoration techniques. Field trips will expose students to all phases of restoration work, from initial construction to high-quality natural area. Field trips also will provide an opportunity for hands-on practice of various management techniques like prescribed burning and vegetation monitoring. (1.1)

*Prerequisite:* BIO 120 AND BIO 126 or HRT 127 (all C or better)

*Typically offered fall only*

**HRT 299 Selected Topics in Horticulture (Variable) 0.5-3 Hours**

This course is designed to meet the needs of students for specialized instruction in horticulture topics. A maximum of six (6) credit hours of HRT 299 may be used as elective credit toward an A.A.S. degree or certificate in Horticulture; a topic may be taken only once. (1.2)

*Course fee*

*May be taken four times, but any topic only once*

## Hospitality and Culinary Management (HCM)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

**HCM 110 Introduction to the Hospitality Industry (3-0) 3 Hours**

This course prepares students for a career in the hospitality industry. The course provides an overview of the various segments in the industry including restaurant management, culinary arts, lodging, managed services, beverages, recreation and theme parks, gaming, and event management. Students are introduced to the various operational areas within the hospitality industry. (1.2)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 AND Basic Algebra Readiness or concurrent enrollment in MTH 114

**HCM 111 Culinary Principles I (2-6) 5 Hours**

This course introduces students to the principles of commercial food preparation with emphasis on the development of a basic foundation of culinary skills. Topics covered include the history of culinary arts, development of modern food service, classic and modern kitchen brigades, kitchen sanitation and safety, recipes and menus, professional kitchen tools and equipment, knife safety, flavors and flavorings, dairy products, mise en place, cooking principles, stock and sauce preparation, and soup identification and preparation. (1.2)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 AND Basic Algebra Readiness or concurrent enrollment in MTH 114

*Corequisite:* HCM 113

*Course fee*

## Course Information and Descriptions

### **HCM 112 Culinary Principles II (2-6) 5 Hours**

This course is a continuation of Culinary Principles I with emphasis on the development of a strong foundation in culinary skills. Topics covered include identification of vegetables used in food service operations and proper cooking methods, the range of vegetarian diets, identification and cookery of various starches, identification and preparation of salads and salad dressings, and the identification of the fruits used in food service operations, and sandwich preparation. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness AND HCM 111 (C or better)

*Course fee*

### **HCM 113 ServSafe: Food Service Sanitation (1-0) 1 Hour**

This course introduces students to the principles and procedures of sanitation in food preparation and service. Topics include causes and prevention of food borne illnesses, health regulations and inspection procedures. The State of Illinois Sanitation Licensing Examination is given as part of this course. This course meets the requirements for the sanitation course for American Culinary Federation (ACF) initial certification and/or re-certification.

*Note:* BRING SERVSAFE BOOK TO FIRST CLASS - AVAILABLE AT CLC BOOKSTORE. (1.2)

### **HCM 151 American Regional Cuisine (1-4) 3 Hours**

This course explores the use of local ingredients in the preparation of traditional and contemporary American specialties. The major culinary regions of the US are identified, including the ingredients and cooking techniques used in each region. Students apply established culinary principles in the preparation of a variety of regional menus. Students will develop mental mise en place, professionalism, speed, total product utilization, and organizational and teamwork skills. (1.2)

*Prerequisite:* HCM 111 and HCM 113 (both C or better)

*Course fee*

*Typically not offered every term*

### **HCM 152 European Cuisine (1-4) 3 Hours**

This course explores the use of local ingredients in the preparation of traditional and contemporary European specialties. The major culinary regions of Europe are identified, including the ingredients and cooking techniques used in each region. Students will also learn and prepare various dishes from specific European countries. Students apply established culinary principles in the preparation of a variety of regional and country-specific menus. Students will develop mental mise en place, professionalism, speed, total product utilization, and organizational and teamwork skills. (1.2)

*Prerequisite:* HCM 111 and HCM 113 (both C or better)

*Course fee*

*Typically not offered every term*

### **HCM 153 Latin American Cuisine (1-4) 3 Hours**

This course explores the use of local ingredients in the preparation of traditional and contemporary Latin American specialties. The major culinary regions of Latin America are identified, including the ingredients and cooking techniques used in each region. Students will also learn and prepare various dishes from specific Latin American countries. Students apply established culinary principles in the preparation of a variety of regional and country-specific menus. Students will develop mental mise en place, professionalism, speed, total product utilization, and organizational and teamwork skills. (1.2)

*Prerequisite:* HCM 111 and HCM 113 (both C or better)

*Course fee*

*Typically not offered every term*

### **HCM 154 Italian Regional Cuisine (1-4) 3 Hours**

This course explores the use of local ingredients in the preparation of traditional and contemporary Italian specialties. The major culinary regions of Italy are identified, including the ingredients and cooking techniques used in each region. Students apply established culinary principles in the preparation of a variety of regional menus. Students will develop mental mise en place, professionalism, speed, total product utilization, and organizational and teamwork skills. (1.2)

*Prerequisite:* HCM 111 and HCM 113 (both C or better)

*Course fee*

*Typically not offered every term*

### **HCM 155 French Regional Cuisine (1-4) 3 Hours**

This course explores the use of local ingredients in the preparation of traditional and contemporary French specialties. The major culinary regions of France are identified, including the ingredients and cooking techniques used in each region. Students apply established culinary principles in the preparation of a variety of regional menus. Students will develop mental mise en place, professionalism, speed, total product utilization and organizational and teamwork skills. (1.2)

*Prerequisite:* HCM 111 and HCM 113 (both C or better)

*Course fee*

*Typically not offered every term*

### **HCM 159 Culinary Arts Study Abroad (Variable) 1-3 Hours**

This course will provide Hospitality and Culinary Management students with the opportunity to study and experience food, culture and the hospitality industry within a global context. Course topics, locations and credit hours will be identified by individual section.

This course is repeatable up to three times, any topic only once, for a maximum of 9 hours toward degree completion. (1.2)

*Prerequisite:* To be determined relative to topic

*May be taken three times, but any topic only once*

*Typically not offered every term*

### **HCM 170 Patisserie I (2-6) 5 Hours**

This course covers the basic principles and ingredients used in bakeshop production. Topics covered include identification of equipment and tools used in the bakeshop, identification of ingredients used in the bakeshop, controlling the development of gluten, understanding the baking process and various mixing methods. This course introduces students to skills needed in a bakeshop and focuses on preparation of baked goods which include quick breads, pate a choux, tarts, pies and cookies. (1.2)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 AND Basic Algebra Readiness or concurrent enrollment in MTH 114

*Corequisite:* HCM 113

*Course fee*

### **HCM 171 Culinary Principles III (2-6) 5 Hours**

This course emphasizes the principles of commercial food preparation along with continued focus on building a strong foundation in culinary skills. Topics covered include principles of meat cookery, including beef, veal, lamb and pork; and principles of poultry, game, fish and shellfish. Students will learn the composition and structure of meat, poultry, fish and shellfish, and will learn quality indicators when purchasing these products. Students will learn the proper cooking methods for various cuts of meat, poultry, fish and shellfish. This course incorporates a capstone project in which students provide a full meal for the public. (1.2)

*Prerequisite:* HCM 112 (C or better)

*Course fee*

**HCM 172 Patisserie II (2-6) 5 Hours**

This course introduces students to the skills and competencies needed to be a professional pastry chef. The continuation of baking and pastry topics includes: custards, petits fours, mousses, cake preparation, plate presentation, basic chocolate work and recipe costing. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness AND HCM 170 (C or better)

*Course fee*

**HCM 173 Patisserie III (2-6) 5 Hours**

This course is a continuation of Patisserie II and introduces students to European and advanced pastries and a variety of tortes with new assembly and decorating techniques. Bavarians, individual cakes and desserts, frozen desserts, advanced pastries and confectionery are also included. (1.2)

*Prerequisite:* HCM 172 (C or better)

*Course fee*

*Typically offered fall only*

**HCM 174 Advanced Pastry (2-6) 5 Hours**

In this advanced course students build on many of the skills and techniques learned in Patisserie I, II and III which include assembling cakes and individual pastries with multiple components and garnishes, advanced pastries, and confectionery. Gateaux, molded frozen desserts, chocolate work, modeling chocolate, marzipan and upscale plate presentations will be produced. (1.2)

*Prerequisite:* HCM 173 (C or better)

*Course fee*

*Typically offered spring only*

**HCM 175 Nutrition (3-0) 3 Hours**

This course introduces students to the principles of nutrition and the application of these principles to the food service industry. Topics include fundamentals of food chemistry and nutrition for different age groups and the special needs of individuals. This course meets the requirements for the nutrition course for American Culinary Federation (ACF) initial certification and/or re-certification. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

**HCM 176 Yeast Breads (1-4) 3 Hours**

This course introduces the student to bread making skills and techniques. Specialty tools and equipment used in bread making will be discussed. Topics covered include ingredient identification and functions of ingredients, how to control gluten development and learning the use of pre-ferments in bread making. Students will produce European and Artisan breads, specialty breads and fabricate products from Danish and croissant dough. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness AND HCM 170 (C or better)

*Course fee*

*Typically offered fall only*

**HCM 177 Advanced Yeast Breads (1-4) 3 Hours**

This course introduces the student to advanced bread making skills and techniques. Specialty tools and equipment used in bread making will be discussed. Topics covered include ingredient identification and functions of ingredients, types of breads from different cultures, the various shapes of breads, and the variety of grains, classic breads, sourdoughs and rye breads. Students will produce European, Artisan and specialty breads from different cultures using a variety of grains and bread shapes. (1.2)

*Prerequisite:* HCM 176 (C or better)

*Course fee*

*Typically offered spring only*

**HCM 178 Special Diets and Healthful Baking (2-4) 4 Hours**

In this course students will focus on identifying and describing nutritional concerns associated with baked goods and desserts. Upon completion of this course, students will identify and describe allergy and food intolerance concerns and learn ways to modify or substitute alternative ingredients for fat, dairy, sugar, gluten and soy in baking formulas for people with specialized diets. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness AND HCM 170 (C or better)

*Course fee*

*Typically offered spring only*

**HCM 179 Cake Decorating (2-4) 4 Hours**

In this course students will work with a variety of fillings, frostings, icings and decorations to fill, ice and assemble special occasion cakes, cupcakes, and wedding cakes. Students will practice using pastry bags with an assortment of pastry tips to pipe classic and contemporary designs. Students will be introduced to rolled fondant and learn techniques with it. (1.2)

*Prerequisite:* HCM 172 (C or better)

*Course fee*

*Typically offered fall only*

**HCM 185 Garde Manger (2-4) 4 Hours**

This course introduces students to Garde Manger (the cold kitchen) and the practical applications of cold food preparation and presentation. Topics include cold sauces, plated appetizers, hors d'oeuvres, principles of plate presentation, buffet design, food art and sculpted centerpieces, garnishing, global garde manger, charcuterie, sausage making, smoking and curing. (1.2)

*Prerequisite:* HCM 171 (C or better)

*Course fee*

*Typically offered fall and spring only*

**HCM 212 Menu Marketing and Management (3-0) 3 Hours**

This course examines the impact the menu has on the success of a foodservice operation. Topics covered include menu design and layout, costing-out recipes, determining menu prices, marketing and merchandising the menu, cost control, and the importance of menu analysis. (1.2)

*Prerequisite:* HCM 111 or HCM 170 (either C or better)

*Typically offered fall and spring only*

**HCM 213 Purchasing & Inventory Control (3-0) 3 Hours**

This course addresses the principles and procedures of quantity purchasing and inventory control. Topics include basic steps in an organized purchasing system; developing standards for purchasing, cost controls and inventory systems; receiving and storage procedures; budgeting; record keeping for food, beverage, equipment and supplies; vendor relationships; legal factors; and storage requirements. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Typically offered fall and spring only*

**HCM 214 Hospitality Supervision (3-0) 3 Hours**

This course introduces students to the skills and competencies needed to supervise staff in the hospitality industry. Emphasis is on recruiting, hiring, training, evaluating, motivating and team work performance. This course meets the requirements for the supervision course for American Culinary Federation (ACF) initial certification and/or re-certification. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Typically offered fall and spring only*

## Course Information and Descriptions

### **HCM 271 Hospitality Leadership (3-0) 3 Hours**

This course introduces students to the principles and techniques required to competitively manage a successful hospitality operation in a rapidly changing environment. The roles, responsibilities and competencies required to perform successfully are presented. Competencies covered include planning, leading, organizing, and controlling to efficiently deliver quality products and services. Skills in creative problem solving and team building are addressed. (1.2)

*Prerequisite:* 15 semester hours of HCM courses, one of which must be HCM 212, 213, or 273 (all C or better)

*Typically offered fall only*

### **HCM 272 Culinary & Hospitality Internship (1-10) 3 Hours**

This course provides students with the opportunity to gain work experience in a professional hospitality setting. Students rotate through different departments or stations to obtain a well-rounded experience. Students meet for one hour per week with the instructor in the classroom and must complete a minimum of 150 hours at the internship site, under the supervision of a chef or manager. (1.2)

*Prerequisite:* Fifteen credit hours of HCM courses and HCM Department consent

### **HCM 273 Controlling Hospitality Costs (3-0) 3 Hours**

This course outlines the elements, procedures and process of controlling hospitality costs. Topics include menu, inventory, purchasing, receiving, food costs, waste, storage, budget, staff scheduling, payroll and benefits. The course also covers the components of analyzing market data and using historical numbers in budgeting. (1.2)

*Prerequisite:* HCM 212 and HCM 213 (both C or better)

*Typically offered fall and spring only*

### **HCM 275 Contemporary Restaurant Principles (1-8) 5 Hours**

This course provides students with the opportunity to further develop their skills in all facets of restaurant operations. Students will plan, organize, prepare and serve menu items typically featured in an upscale dining establishment specializing in Contemporary American Cuisine. Students will experience both front-of-the-house and back-of-the-house operations. Modern menu trends, flavor combinations, and plate presentation are emphasized, using locally-grown and produced ingredients when possible. Students will also learn basic service techniques, set-up and organization of the dining room, and service language. (1.2)

*Prerequisite:* HCM 171 and HCM 212 (both C or better)

*Typically offered fall and spring only*

### **HCM 299 Selected Topics in Hospitality (Variable) 1-5 Hours**

This course is designed to provide specialized instruction in a current or emerging culinary arts or hospitality management area. Course content will vary depending on the topic being studied. The course may be taken up to three times, but any topic only once, for a maximum of three credits toward a degree or certificate. (1.2)

*Course fee*

*May be taken three times, but any topic only once*

## Human Services Program (HUS)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### **HUS 114 Human Services Supervision (3-0) 3 Hours**

Designed to develop an understanding of the major functions of management in the human services area. Various methods of planning, organizing and directing are examined. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **HUS 116 Principles of Foster Care (1-0) 1 Hour**

For people who have received basic orientation for foster care from the agency for which they are fostering children. It seeks to acquaint new and experienced foster parents with basic concepts in fostering through formal presentations and learning from other class members. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **HUS 117 Behavior Assessment (4-0) 4 Hours**

Presents the idea of planned intervention to human systems utilizing verified principles of behavior change. Emphasis placed on the ways in which behavior is determined by factors in natural social situations. Research and the practical application of behavior change techniques are stressed. (1.2)

*Prerequisite:* PSY 121 (C or better)

### **HUS 121 Health and Nutrition (3-0) 3 Hours**

The course focuses on personal health needs of the individual, including nutrition, health, and safety issues with emphasis on meeting health/safety needs for children, adolescents, and adults in group settings. A healthy lifestyle, preventive health, and community health are examined. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

### **HUS 123 Introduction to Group Dynamics (3-0) 3 Hours**

(Formerly HUS 113) This course introduces basic concepts and theories of group dynamics, including group development and functioning, communication patterns, leadership, and conflict management. Laboratory experiences provide opportunities for self-awareness through observations of group behavior, working within groups, and group leadership. (1.1)

*Prerequisite:* College Reading and Writing Readiness

### **HUS 128 Introduction to Counseling Skills (2-2) 3 Hours**

(Formerly HUS 118) This course provides the student with an introduction to the foundational theories and skills necessary in the counseling field and explores the dynamics of establishing positive relationships with people in need of human services. The counseling process and the issues of intervention, therapeutic interviewing, confidentiality, and empathic communication will be presented. This course includes a mandatory field experience of 40 hours with an HUS Department Chair pre-approved social service agency. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**HUS 132 Trauma, Violence, and Prevention (3-0) 3 Hours**

This course provides an introduction to the knowledge, skills, and values necessary for working in the area of trauma, victim services, advocacy and treatment, and violence prevention in contemporary society. Theoretical concepts will be introduced on the following topics: causes of trauma, types of trauma and violence, violence prevention, crisis intervention, stress management for client and provider, cultural competency, grief and loss, post-traumatic stress disorder, and victimization. Students will explore the problems and the social welfare agencies responding to the experiences of diverse populations in these areas. (1.2)

*Prerequisite:* HUS 128 (formerly HUS 118) or HUS 140 (formerly HUX 170) (both C or better)

**HUS 134 Gender-Based Violence (4-0) 4 Hours**

This course will provide the student with an understanding and knowledge of the specialized areas of Domestic Violence and Sexual Assault and the content required of anyone who wishes to understand, work, or volunteer within these fields. Specific topics addressed will be rape trauma syndrome, post-traumatic stress disorder, cycle of violence, the impact to victims and their families, same-sex violence, confidentiality, mandated reporting to the Department of Children and Family Services, and interventions to support the healing process. This course consists of the equivalent of the two mandatory 40-hour trainings combined into one 60-hour training. Mandatory trainings are required prior to working directly with victims of either sexual assault or domestic violence. Upon completion of this course, students will earn certifications for volunteering or working in the Sexual Assault and Domestic Violence fields. This course is intended for students in any field and community members from all walks of life who want to learn to help others. (1.2)

*Prerequisite:* College Reading and Writing Readiness or consent of department chair

*Recommended:* HUS 128 (formerly HUS 118) (C or better)

**HUS 140 Drugs and Society (3-0) 3 Hours**

(Formerly HUX 170) This course provides the student with an historical background of drugs of abuse and their impact on individuals and society. Topics addressed include an in-depth study of specific licit and illicit drugs and the pharmacological and behavioral effects within the major classifications of substances. Additional topics include laws and regulations, individual and societal problems, prevention strategies, and trends and statistics. (1.2)

*Prerequisite:* College Reading and Writing Readiness

**HUS 151 Addiction Counseling and Treatment I (3-0) 3 Hours**

This course will provide an overview of addiction, including the addiction process, addictive disorders, treatment and recovery, relapse, self-help groups, and milieu management. Students will study theories of addiction, and gain an understanding of addiction as a brain disease and how drugs affect the physical, emotional, and social aspects of the person. Societal and cultural views of addiction will be discussed. In addition, this course will focus on assessment and treatment of families where one or more members have an addictive disorder. Topics in this area include codependency, survival strategies of family members, and family interaction patterns and communication processes. Intervention techniques will also be covered. (1.2)

*Prerequisite:* HUS 123 (formerly HUS 113), HUS 128 (formerly HUS 118), and HUS 140 (formerly HUX 170) (all C or better)

**HUS 152 Process Addictions/Impulse Disorders (2-0) 2 Hours**

(Formerly HUX 172) This course will examine the addictive process as it is manifested in diverse social behaviors. Students will study similarities and differences of process/behavioral addictions, impulse control disorders, and compulsive behaviors. Focus will be on etiology, assessment, treatment, legal issues, and family issues. These various behaviors and disorders will include, but not be limited to the following: gambling, eating disorders, work, sex, compulsive buying, shoplifting, pyromania, and intermittent explosive disorder. The relationship of these disorders will be compared and contrasted with alcohol and other drug addictions. (1.2)

*Prerequisite:* HUS 140 (formerly HUX 170) (C or better)

**HUS 153 Diverse/Multicultural Populations (2-0) 2 Hours**

(Formerly HUX 173) This course provides the students with an analysis of the different populations of clients in substance abuse treatment settings, including age, ethnicity, racial, cultural, gender, sexual minorities, people with disabilities, co-occurring disorders. Clients in criminal justice settings will also be addressed. For each population studied, differential addiction patterns will be explained, response to traditional treatment methods will be identified, and research data regarding treatment modes to accommodate the needs of diverse populations will be analyzed and applied. (1.2)

*Prerequisite:* HUS 140 (formerly HUX 170) (C or better)

*Fulfills the CLC I/M Education Requirement.*

**HUS 154 Ethics in Human Services (1-0) 1 Hour**

(Formerly HUX 174) This course provides the student with an introduction to multiple ethical considerations in the counselor-client relationship. Topics considered will include personal values of professional staff, confidentiality, sexual and social contact with clients, self-determination, conflicts of interest, dual relationships, and more. Students will also consider application of agency policies, professional ethics, and the law. (1.2)

*Prerequisite:* HUS 140 (formerly HUX 170) (C or better)

**HUS 155 Pharmacology for Human Services (2-0) 2 Hours**

(Formerly HUX 175) This course provides the student with an exploration of the neurobiological processes, including neurotransmission, an overview of the various elements of the nervous system, and the effects, mechanisms, and actions of classes of psychotropic drugs. Students will study the terms used in the medical and psychotherapy profession as described in the Diagnostic and Statistical Manual (DSM) and the International Classification of Disease (ICD). Abbreviations, spelling, and pronunciation are emphasized. (1.2)

*Prerequisite:* HUS 140 (formerly HUX 170) (C or better)

**HUS 157 Communicable Diseases and Substance Abuse (2-0) 2 Hours**

(Formerly HUX 179) An interdisciplinary analysis of the biological, social and psychological aspects of communicable diseases and their relationship with substance use, abuse, and addiction. Specific topics include HIV/AIDS, STDs, hepatitis, and disease progression. Emphasis will be placed on myths versus realities. Risk assessment, risk reduction, psychological interventions, medical management and legal issues are included. (1.2)

*Prerequisite:* HUS 140 (formerly HUX 170) (C or better)

## Course Information and Descriptions

### **HUS 170 Human Services Practicum I (Variable) 1-4 Hours**

This course is an onsite, unpaid supervised practicum experience working directly with clients, family members, and the community in a Human Services agency related to the student's program of study. To apply this course toward a certificate or degree, the student must complete a total of 300 hours of practicum and coursework. This is a variable credit course (1-4 credits), with 75 practicum hours required per credit. This course is repeatable for a maximum of four (4) credits or 300 practicum hours. (1.2)

*Prerequisite:* HUS 274 (C or better), consent of Human Services Department Chair, and a minimum GPA of 2.40

*May be taken four times for credit toward degree*

### **HUS 171 Human Services Practicum II (Variable) 1-4 Hours**

This course is a continuation of HUS 170. When appropriate, Practicum II will be performed in a different setting than Practicum I. The student will be expected to initiate a leadership role in therapeutic interventions with clients at a higher skill level than in Practicum I. To apply this course toward a certificate or degree, the student must complete a total of 300 hours of practicum and coursework. This is a variable credit course (1-4 credits), with 75 practicum hours required per credit. This course is repeatable for a maximum of four (4) credits or 300 practicum hours. (1.2)

*Prerequisite:* HUS 170 (C or better), consent of Human Services Department Chair, and a minimum GPA of 2.50

*May be taken four times for credit toward degree*

### **HUS 210 Principles of Residential Care (3-0) 3 Hours**

Methods and procedures used in residential care agencies, including program planning, activity management, and means of meeting needs of adolescents. (1.2)

*Prerequisite:* HUS 223

### **HUS 213 Mental Retardation (3-0) 3 Hours**

Reviews the basic theories regarding the diagnosis and treatment of mental retardation. Programs designed for the care and education of the mentally retarded are emphasized and present and future perspectives in the field of mental retardation are discussed. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **HUS 217 Creative Activities II (2-2) 3 Hours**

Creative activities used in the development of school-age children and adolescents in residential group care. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **HUS 219 Human Services Internship (1-15) 4 Hours**

This course is an on-site, unpaid supervised internship experience working directly with clients, family members, groups, and the community in community social service agencies. This course is a total of 250 hours, which includes 30 hours of supervision and a supervision seminar class. (1.2)

*Prerequisite:* HUS 274 (C or better), approval of Department Chair, and a minimum GPA of 2.40

### **HUS 231 Adult Development and Aging (3-0) 3 Hours**

This course integrates theory and research related to changes across periods of adulthood in areas such as: biological, cognitive, personality, mental health, social-emotional, etc. Students will gain an understanding of the aging process through the use of a lifespan model of adult development in a multicultural context. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **HUS 232 Trauma Interventions (3-0) 3 Hours**

This course is a continuation of HUS 132 and provides an overview of the impact of violence and trauma across the life span.

Therapeutic techniques, assessment, and interventions appropriate for working with victims of trauma at various developmental life stages and the specific issues, including gender, which relate to children, adolescents, young adults, adults, and older adults. Topics covered include resources available for referrals, working with resistant and reluctant clients, working with families, and group work with various types of trauma. (1.2)

*Prerequisite:* HUS 132 (C or better)

*Recommended:* HUS 236 (C or better)

### **HUS 234 Child Maltreatment (3-0) 3 Hours**

This course explores the etiologies and effects of child maltreatment as well as assessment and treatment strategies. Child maltreatment is approached from a strengths-based, family-centered perspective within a multi-disciplinary context noting issues of culture and diversity and the influence of digital and social media. Topic areas include child physical abuse, neglect, sexual abuse, psychological maltreatment, family violence, extrafamilial abuse, and consequences across the lifespan. Emphasis will be given to identification of child maltreatment, reporting procedures, interventions, treatment, prevention, and professional, legal, and agency interaction. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* HUS 128 or HUS 132 or SWK 121

### **HUS 236 Crisis Intervention (3-0) 3 Hours**

This course will provide the student with an understanding of the history, theory, and models of crisis intervention. The student will gain knowledge regarding specific crises in the areas of loss, abuse, violence, crimes, developmental, health-related and others. The student will also acquire effective intervention skills and techniques to respond to individuals in specific crisis situations. (1.2)

*Prerequisite:* HUS 128 (formerly HUS 118) (C or better)

*Recommended:* HUS 132 (C or better)

### **HUS 251 Addiction Counseling and Treatment II (4-0) 4 Hours**

(Formerly HUX 171) This course will provide an overview of the treatment process from evaluation and intake through discharge, with an emphasis placed on interviewing skills, record keeping and documentation. Specific topics include screening, assessment, diagnosis, intake, treatment planning, case management, co-occurring disorders, discharge planning, and referral. The course encompasses a study of screening and assessment procedures used to gather information during the client intake process that form the basis for a multivariate diagnosis of addictive disorders as described in the current edition of the DSM. Screening and assessment instruments will be utilized with the Bio/Psycho/Social evaluation to formulate and support a Diagnostic Summary. The current ASAM Patient Placement Criteria will be utilized to match the client with the appropriate level of care and appropriate differential treatment plan. (1.2)

*Prerequisite:* HUS 151 (C or better)

### **HUS 253 Advanced Addictions Counseling Skills (2-2) 3 Hours**

(Formerly HUX 176 and HUX 177) This course is a study of the major theoretical approaches used in counseling alcoholism, substance abuse, and addictive disorders. Theories and principles of both group work and individual counseling in a variety of human service settings are explored. Students are expected to participate as both clients and counselors in role plays to apply this knowledge. Client problems that often coincide with addictive disorders will be addressed. (1.2)

*Prerequisite:* HUS 151 (C or better)

**HUS 274 Human Services Practicum Orientation (1-0) 1 Hour**

This course prepares students for the practicum experience in the various Human Services Programs. Students will gain an understanding of the practicum process, required paperwork, ethical considerations, and the supervision requirements. In addition, students will prepare resumes, practice interviewing skills, develop professional demeanor, and begin the interview process with potential practicum sites.

*Note:* Application for HUS 274 must be submitted to the HUS Department Chair. Prerequisites for HUS 274 may be taken concurrently or waived upon course review and determination by HUS Department Chair. (1.2)

*Prerequisite:* HUS 154 (formerly HUX 174), HUS 155 (formerly HUX 175), HUS 251 (formerly HUX 171), and HUS 253 (formerly HUX 176 & HUX 177) (all C or better)

**HUS 275 Addiction Counseling Practicum I (Variable) 1-4 Hours**

This course is an on-site, unpaid supervised practicum experience working directly with clients, family members, and groups in community treatment centers for substance use disorders and addictions. Experiences may include in-patient, out-patient and intensive out-patient models. To apply this course toward a certificate or degree, the student must complete a total of 300 hours of practicum and coursework. This is a variable credit course (1-4 credits), with 75 practicum hours required per credit. This course is repeatable for a maximum of four (4) credits or 300 practicum hours. (1.2)

*Prerequisite:* HUS 274 (C or better), and approval of Department Chair, and minimum GPA of 2.5

*May be taken four times for credit toward degree*

**HUS 276 Addiction Counseling Practicum II (Variable) 1-4 Hours**

This course is a continuation of Addiction Counseling Practicum I, HUS 275. When appropriate, Practicum II will be performed in a different setting than Practicum I. The student will be expected to initiate a leadership role in therapeutic intervention with clients at a higher skill level than in Practicum I. To apply this course toward a certificate or degree, the student must complete a total of 300 hours of practicum and coursework. This is a variable credit course (1-4 credits), with 75 practicum hours required per credit. This course is repeatable for a maximum of four (4) credits or 300 practicum hours. (1.2)

*Prerequisite:* HUS 275 (C or better), approval of Department Chair, and a minimum GPA of 2.5

*May be taken four times for credit toward degree*

**HUS 299 Special Topics in Human Services (Variable) 1-3 Hours**

Special topics will be developed for the different Human Services Options. Topics developed will focus on a specific current issue in the areas of adult services or alcohol and substance abuse.

*Note:* A maximum of six (6) credit hours of HUS 299 may be used as elective credit toward an A.A.S. degree in Human Services. (1.2)

*Prerequisite:* College Reading and Writing Readiness

*May be taken four times, but any topic only once*

**Humanities (HUM)****Communication Arts, Humanities and Fine Arts Division, Room B213, (847) 543-2040****HUM 121 Humanities: Ancient Times to the Middle Ages (3-0) 3 Hours**

This interdisciplinary course introduces students to art, architecture, literature, philosophy, religion, myth, music, and dance of western (Europe; North, Latin, and South America) and non-western (Asia, Africa, India) civilizations from ancient period to the end of the 14th century.

*Note:* HUM 121 is not a prerequisite for HUM 122. Thus, students can take HUM 122 without taking HUM 121. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: HF 902**

**HUM 122 Humanities: Renaissance to the Present (3-0) 3 Hours**

This interdisciplinary course introduces students to art, architecture, literature, philosophy, religion, myth, music, and philosophy of western (Europe; North, Latin, and South America) and non-western (Asia, Africa, India) civilizations from the 15th century to the present.

*Note:* HUM 121 is not a prerequisite for HUM 122. Thus, students can take HUM 122 without taking HUM 121. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: HF 903**

**HUM 123 Introduction to Film (3-0) 3 Hours**

This is an introductory course on the historical, technical and aesthetic study of film. Students will learn how the film maker communicates to us through cinematography, mise-en-scene, editing, sound and narrative construction and will gain a historical perspective on the history of film art. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

**IAI: F2 908**

**HUM 126 Introduction to the Performing Arts (3-0) 3 Hours**

This course provides an introduction to current performing arts trends, inclusive of cultures, traditions and populations that are typically underrepresented in the study of performing arts. Theatre, music, opera, and dance will all be examined from the point of view of the educated audience member. Students will learn to better understand and evaluate the performing arts. Terminology, practitioners, organization, and a brief history of each discipline will be examined. This will be accomplished through lectures, videos, and by attending actual performances. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: F9 900**

**HUM 127 Critical Thinking (3-0) 3 Hours**

This course is an introduction to critical thinking skills (i.e., informal logic), including the following: problem solving, diagramming and evaluating arguments, constructing sound reasoning skills and habits, detecting fallacies, and reasoning from a variety of disciplines such as science, business, law, and the arts. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: H4 906**

## Course Information and Descriptions

### **HUM 128 Introduction to Middle Eastern Civilizations (3-0) 3 Hours**

This course provides a multi-media exploration of (1) the diverse philosophical and religious concepts and values in the Middle East, (2) the diverse expressions of these concepts and values in the art, architecture, craftsmanship, film, and literature produced by the cultures of North Africa, Egypt, Israel, Turkey, the Fertile Crescent, Arabian Peninsula, Iran, and Pakistan, and (3) the relation of these concepts and values to current philosophical issues in the Middle East regarding politics, economics, and gender. Comparisons will be made with Western philosophy, art, architecture, craftsmanship, film and literature. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: H2 903N**

### **HUM 129 Introduction to East Asian Civilization (3-0) 3 Hours**

This course is an introduction to East Asian culture, past and present. Particularly, this course will focus on China, Japan, and Korea. Students will learn about representative works and significant developments in the arts, philosophy, religion, and literature in China, Japan, and Korea. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: HF 904N**

### **HUM 140 Introduction to International Film (3-0) 3 Hours**

This is a survey course on the history and aesthetic appreciation of film as an international medium of entertainment, communication and persuasion. Through viewing and analysis of classic and contemporary films from Europe, Central and South America, Asia, the Middle East and Australia, the student will gain a global understanding of film. Films shown will be mostly narrative features by internationally recognized directors, but may also include avant-garde, documentary, animated and North American foreign-language films. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

*Fulfills the CLC I/M Education Requirement.*

**IAI: F2 909**

### **HUM 141 World Humanities of 20/21 Century (3-0) 3 Hours**

This is an interdisciplinary and multicultural course which introduces students to the visual art, architecture, literature, philosophy/religion/myth, music, dance, and history of various non-Western cultures through selected works and a comparative examination of their values, motifs and aesthetics with those of Western cultural expression during the 20th and 21st centuries. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: HF 904N**

### **HUM 221 American Decades (3-0) 3 Hours**

This course introduces students to the interdisciplinary study of American culture by examining the intercultural/multicultural ideas, processes, values, motifs, and traditions that have shaped our pluralistic society. American history, philosophy, literature, music, visual and performing arts will be studied. Emphasis will be placed on reflecting the diverse cultural constituency, and racial and ethnic minorities. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: HF 906D**

### **HUM 222 Film and Society (3-0) 3 Hours**

This course will examine the evolution of American cinema and its relationship to society. The focus of the course is on the history of film and the social, economic and political pressures which have shaped its development. Periods of film history will include such eras as: Early "Silent" Cinema, "Classical" Hollywood of the 1930s/1940s, Post-War American Film, the "New American Cinema" of the 1960s/1970s, Postmodernism, and recent developments in Digital Filmmaking. Special attention will be paid toward important facets of the film industry such as the Auteur-Director, the Star system, as well as examples of important Genres (e.g. Musicals, Westerns, Horror, Detective, Science-Fiction, "Woman's Pictures", Social Problem films, etc.). (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

**IAI: F2 908**

### **HUM 226 Women and the Arts (3-0) 3 Hours**

This interdisciplinary humanities course explores the depiction and contributions of women in the visual and performing arts throughout history. Current multicultural and global developments, the contrast of female and male creativity, social attitudes regarding women, and patronage of the arts will be investigated. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: HF 907D**

### **HUM 299 Special Topics in Humanities (Variable) 1-3 Hours**

This course will address the in-depth study of special topics in Humanities which do not have specific courses in the catalog. Course content and requirements will vary depending on the topic being studied. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*May be taken three times, but any topic only once*

## Industrial Electrician (ISE)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

### **ISE 110 Introduction to Industrial Electricity (1-2) 2 Hours**

Introductory course in industrial electricity. Emphasis placed on fundamental principles and practices. (1.2)

*Prerequisite:* MTH 114

*Course fee*

*Typically not offered every term*

### **ISE 111 Industrial Electrical Circuits I (2-2) 3 Hours**

Introduces students to electrical fundamentals as related to direct current systems and applications. (1.2)

*Prerequisite:* MTH 114

*Course fee*

*Typically not offered every term*

### **ISE 112 Industrial Electrical Circuits II (2-2) 3 Hours**

Introduces students to electrical fundamentals as related to alternating current systems and applications. (1.2)

*Prerequisite:* ISE 111

*Course fee*

*Typically not offered every term*

**ISE 114 National Electrical Code (2-0) 2 Hours**

Provides the student with the opportunity for study and interpretation of the National Electrical Code.

*Note:* Previous electrical experience/education is strongly recommended. (1.2)

*Typically not offered every term*

**ISE 117 Industrial Electronic Devices (2-2) 3 Hours**

Introduces students to a wide variety of analog and digital circuits used in various electronic systems and devices used in the home and industry. (1.2)

*Prerequisite:* MTH 115 and ELC 114

*Course fee*

*Typically not offered every term*

**ISE 118 Power Distribution (2-2) 3 Hours**

Electrical and electronic applications on industrial equipment including simple and automated welding control circuits, switching circuits, light and heat controls, speed and voltage regulators, large current polyphase rectifiers, temperature recorders and control, high speed light and register controls, automatic control of D.C. motors, closed loop servomechanisms, and electronic service instruments. (1.2)

*Prerequisite:* MTH 115 and ELC 114

*Course fee*

*Typically not offered every term*

## International Studies (SSI)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

**SSI 121 Introduction to Global Studies (3-0) 3 Hours**

This course explores globalization from the social, cultural, economic, and political dimensions. Through reading, research, writing about global experience and discussions of major social-scientific theories students examine and analyze the complexity of variety of our societies and the common features of their changing environments. The course addresses the historical context in which globalization emerged, including the rise of global institutions and the legacy of colonialism, the global economy and its impact on labor and financial markets, the media, the social and cultural movements, global politics, religion in the global context and the rise of global terrorism. The course also studies the global social issues and problems such as gender and the aggregation of global poverty. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**SSI 124 International Studies in Social Science (Variable) 1-3 Hours**

Students will travel with faculty to international/regional locations which may vary from year to year to study selected topics or current issues in the social or behavioral sciences (anthropology, sociology, psychology, geography, history, political science, and economics). The instructor will assist students in developing required activities or projects undertaken during the travel experience. These will include field trips, lectures, discussions or other appropriate activities. Credit is variable and arranged with the instructor. Students are responsible for the travel expenses, tuition, and fees. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*May be taken three times, but any topic only once*

## Italian (ITL)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

**ITL 121 Beginning Italian I (4-0) 4 Hours**

An introduction to the Italian language. The course develops basic skills in pronunciation, vocabulary, grammar, reading, listening comprehension, and oral and written communication within the context of Italian culture. (1.1)

**ITL 122 Beginning Italian II (4-0) 4 Hours**

This course continues to develop the basic skills introduced in ITL 121: pronunciation, vocabulary, grammar, reading, listening comprehension, and oral and written communication within the context of Italian culture. (1.1)

*Prerequisite:* ITL 121

**ITL 221 Intermediate Italian I (4-0) 4 Hours**

Continued development of basic skills introduced in ITL 121 and ITL 122. The course is a general review and expansion of beginning grammar, conversation, vocabulary development, readings and writing exercises which focus on life in Italy. (1.1)

*Prerequisite:* ITL 122

**ITL 222 Intermediate Italian II (4-0) 4 Hours**

This course reviews and expands the use of Italian grammar by introducing more advanced structures into verbal and written communication. Films, material from newspapers and magazines, and from other media will enable students to use authentic materials that are culturally relevant to explore further the Italian speaking world and its culture. (1.1)

*Prerequisite:* ITL 221 (C or better) or Consent of Instructor

*Fulfills the CLC I/M Education Requirement.*

**IAI: H1 900**

**ITL 223 Italian Civilization I (3-0) 3 Hours**

This is the first semester of a course designed to give the advanced student of Italian the opportunity to increase proficiency in the Italian language and knowledge of the Italian culture. A carefully selected series of readings and supplementary materials will provide the basis for the development of language and culture skills. (1.1)

*Prerequisite:* ITL 222

**IAI: H1 900**

**ITL 224 Italian Civilization II (3-0) 3 Hours**

This is the second semester of a course designed to give the advanced student of Italian the opportunity to increase proficiency in the Italian language and knowledge of the Italian culture. A carefully selected series of readings and supplementary materials will provide the basis for the development of language and culture skills. (1.1)

*Prerequisite:* ITL 223

## Course Information and Descriptions

### Japanese (JPN)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

#### **JPN 121 Beginning Japanese I (4-0) 4 Hours**

This course develops basic skills in pronunciation, vocabulary, grammar, reading, listening, comprehension, and oral and written communication within the context of Japanese culture. (1.1)

#### **JPN 122 Beginning Japanese II (4-0) 4 Hours**

This course continues to develop the basic skills introduced in JPN 121: pronunciation, vocabulary, grammar, reading and writing of Kana and Kanji, listening comprehension, and oral and written communication within the context of Japanese culture. (1.1)

*Prerequisite:* JPN 121

#### **JPN 221 Intermediate Japanese I (4-0) 4 Hours**

Designed to continue the development of basic skills, this course is a general review and expansion of beginning grammar, along with conversation, vocabulary development, and reading and writing of Kana and Kanji within the context of Japanese culture. (1.1)

*Prerequisite:* JPN 122

#### **JPN 222 Intermediate Japanese II (4-0) 4 Hours**

This course continues to expand the knowledge of Japanese grammar, with emphasis in verbal and written communication. Students will use various sentence patterns and speech styles with Kana and Kanji (additional 100 Kanji). Films, short videos, readings and materials from newspapers, magazines, and media are utilized so students explore the Japanese speaking world and cultures based on authentic materials.

*Note:* Field trip attendance is required. (1.1)

*Prerequisite:* JPN 221

*Fulfills the CLC I/M Education Requirement.*

**IAI: H1 900**

#### **JPN 223 Japanese Civilization I (3-0) 3 Hours**

This course is designed to give the advanced Japanese language and culture students more opportunity in reading and writing complex material with new Kanji. It is also designed to expand the students' knowledge of Japanese culture through articles and films.

Communication skills will be gained through group discussions. (1.1)

*Prerequisite:* JPN 222 or equivalent (C or better)

#### **JPN 224 Japanese Civilization II (3-0) 3 Hours**

This course is a continuation of Japanese Civilization I. Advanced Japanese language and culture students will continue to gain cultural enrichment through lively discussions, readings, and writing about Japan. This course will incorporate a broad variety of materials from literary works, films, articles, and media in order to provide students the opportunity to understand and apply the Japanese language. (1.1)

*Prerequisite:* JPN 223 or equivalent (C or better)

### Laser/Photonics/Optics (LPO)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

#### **LPO 110 Introduction to Lasers, Photonics and Optics (2-2) 3 Hours**

This course will introduce students to the field of photonics, including a variety of optics and photonics laboratory equipment. Additionally, lab safety skills as defined by the American National Standards Institute (ANSI) Z136.5 standard will be practiced.

Students will be responsible for writing lab reports, performing related calculations, graphing data collected, logging that data in a lab notebook and completing reports in office software. Students will investigate the responsibilities of photonics technicians and potential careers in photonics by visiting area photonics companies. (1.2)

*Prerequisite:* MTH 102 (C or better) or appropriate score on the math placement test AND College Reading and Writing Readiness or concurrent enrollment in ENG109 or ELI 109 or ENG 100

#### **LPO 111 Fundamentals of Light and Lasers (3-2) 4 Hours**

Topics covered include the nature and property of light, light sources, laser safety, geometrical and physical optics, and principles of lasers. Selected topics in math will be reviewed in conjunction with topics in photonics. Typical math topics embedded in this course include scientific notation, introductory algebra, geometry, trigonometry, exponents and logarithms. (1.2)

*Prerequisite:* MTH 118 (C or better) or minimum Math ACT score of 25 or appropriate Math Placement Test. Language skills equivalent to ENG 108, ELI 108 or ELI 110 (C or better) OR a ELI Accuplacer score of 285 or higher OR 122 on the APT placement test.

#### **LPO 112 Elements of Photonics (2-2) 3 Hours**

This course covers the basic principles of lasers and other photonic devices used in fiber optics, imaging, display and storage applications. (1.2)

*Prerequisite:* LPO 111 or consent of instructor

#### **LPO 113 Photonics-Enabled Technologies (2-2) 3 Hours**

The subject matter covered in this course includes topics such as laser welding; laser drilling, cutting and marking; test and measurement applications; forensic science and homeland security; and basic spectroscopy principles. Course topics have a strong manufacturing orientation. (1.2)

*Prerequisite:* LPO 111 or consent of instructor

#### **LPO 134 Introduction to Biophotonics (3-2) 4 Hours**

This course covers the basic principles of biology crucial to the understanding of biological, biomedical, and ecological applications of photonics. Biophotonics has emerged from interdisciplinary research and applications of the biological, chemical, and physical sciences, and engineering. This course provides a broad overview of the countless applications of photonics in these fields. (1.2)

*Prerequisite:* LPO 111 and LPO 112 (both C or better); and BIO 123 or BIO 161 (both C or better)

**LPO 145 Photonic CAD Applications (2-2) 3 Hours**

This course will introduce students to the use of computer aided design (CAD) in the field of photonics. Students will utilize a CAD program in the design of mechanical structures and optical assemblies as well as for lens design and ray-tracing of a light ray through the lens system. (1.2)

*Prerequisite:* LPO 111 and CAD 170 (previously CAD 173) (both C or better)

**LPO 211 Geometric and Wave Optics (1.5-3) 3 Hours**

The course offers a more advanced look at many of the topics covered in Fundamentals of Light and Lasers (LPO 111). Topics include Imaging with multiple lenses, F-stops and apertures, Optical Systems, Matrix Optics, Fundamentals of fiber optics, Interference, Diffraction, Polarization, and Holography. (1.2)

*Prerequisite:* LPO 111 (C or better)

**LPO 212 Elements of Photonics II (2-2) 3 Hours**

This course builds upon Elements of Photonics (LPO 112) and covers additional laser systems including excimer lasers, fiber lasers, diode lasers, dye lasers, and others. In lab students will experience advanced applications with hands-on laser optical systems and analysis. (1.2)

*Prerequisite:* LPO 112 (C or better)

**LPO 250 Laser and Electro-Optic Devices (1.5-3) 3 Hours**

This course offers a more advanced look at many of the devices used in a photonics lab. Physical characteristics of photodetectors, such as response time and detectivity, will be measured and compared to published device specifications and further verified using computerized diagnostic equipment. Measuring the thermal effects of a laser by applying different types of photodetectors to optical systems will be explored. Students will further investigate other wave based energy using light to transmit digitized data. (1.2)

*Prerequisite:* LPO 112 (C or better)

**LPO 290 Laser, Photonics and Optics Capstone Proposal (.5-1) 1 Hour**

This course will require students, or teams of students, to decide on a capstone project to be completed in LPO Project or Research Capstone (LPO 291). Proposed projects must be cleared with the instructor to verify that they meet program requirements and that they can be supported by the college. An outline of the project, a description of any lab setup, and a formal proposal will be documented. Students deciding to work in teams will include member responsibilities and timelines in their outlines. (1.2)

*Prerequisite:* LPO 113 (C or better)

**LPO 291 Laser, Photonics and Optics Project or Research Capstone (.5-5 hours) 3 Hours**

This course will require students, or teams of students, to work on a capstone project. Students must complete the project under the guidance of the instructor to ensure the project, as proposed in LPO 290 and LPO 291 course requirements, are maintained. Students will create a log of the project with a timeline, a working model of any lab setup (or nonworking with an acceptable reason), and a CAD or similar drawing of optical apparatus. In addition a formal report for the course will be produced along with a poster for submittal to a conference. (1.2)

*Prerequisite:* LPO 290 (C or better)

## Latin-American Studies (LAT)

Communication Arts, Humanities and Fine Arts Division, Room B213, (847) 543-2040

**LAT 121 Introduction to Latin American Studies (3-0) 3 Hours**

This course will provide an overview of the Latin American and Caribbean people and their countries, from their origins to the present. Some of the areas examined are the political, cultural, historical, and ethnicity issues that affect these civilizations. (1.1)

*Prerequisite:* College Reading and Writing Readiness  
*Fulfills the CLC I/M Education Requirement.*

## Liberal Arts and Science (LAS)

Educational Affairs Office, Room A213, (847) 543-2411

**LAS 221 Sophomore Seminar (3-0) 3 Hours**

An in-depth cross-disciplinary examination of selected topics arising from existing CLC transfer courses. Content varies. (1.1)

## Library Science (LSC)

Communication Arts, Humanities and Fine Arts Division, Room B213, (847) 543-2040

**LSC 121 Research Skills for the Real World (1-0) 1 Hour**

This course equips students to critically and ethically use information while in college and beyond. Students completing this course will recognize when their own knowledge and resources are not sufficient to meet their information needs. They will learn how to find, evaluate, and effectively utilize information in a variety of formats pertinent to their educational, professional, and life goals. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

### Machine Tool Trades (MTT)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

#### **MTT 110 Machine Trades Blueprint Reading (3-0) 3 Hours**

Designed to study the principles which are essential for visualization and training in the interpretation of blueprints and sketches of machine parts. Attention is given to representations of common machine processes, special forms of dimensioning, sections, auxiliary views, symbols, geometric tolerancing, machine sketching, surface finished and other drafting and design principles. (1.2)

#### **MTT 111 Machine Shop I (2-3) 3 Hours**

Designed as an introduction to machining and machine shop practices.

Study topics include hand tools, speeds and feeds, measurement, Taps and Dies, cutoff machines and general safety. Student will learn to setup and operate traditional metal cutting machines such as Drilling, Turning, Milling and Grinding machines. Practical labs are included. (1.2)

*Course fee*

#### **MTT 112 Machining Principles (2-2) 3 Hours**

Theory and practices involved in the safety and operation of traditional metal cutting machine tools and their appropriate tooling. Student will be expected to do a practical setup and operation on a manual Mill, Lathe, and Drill press. Some CNC milling and Wire EDM applications are also included (1.2)

*Typically offered fall and spring only*

#### **MTT 113 Grinding Technology (2-2) 3 Hours**

Designed to provide the student with grinding theory and practice. Surface, cutter, sine plate, form and cutter grinding are included. (1.2)

*Course fee*

*Typically offered fall only*

#### **MTT 115 Introduction to Die Making (3-0) 3 Hours**

Presents the student with the basic fundamentals of die construction, function and die components.

*Note:* Machine shop skills and basic shop mathematics are strongly recommended. (1.2)

*Prerequisite:* MTT 110

*Course fee*

*Typically not offered every term*

#### **MTT 116 Introduction to Moldmaking (3-0) 3 Hours**

Designed to provide the student with basic fundamentals of mold construction and components.

*Note:* Machine shop skills and basic shop mathematics are strongly recommended. (1.2)

*Prerequisite:* MTT 110

*Course fee*

*Typically not offered every term*

#### **MTT 210 Machine Shop II (1-4) 3 Hours**

Designed as a continuation of material and information presented in Machine Shop I. Additional topics of study include advanced operations on the lathe and vertical milling machine, grinding, EDM, heat treating and materials usage.

*Note:* Shop math skills or MTH 115 is strongly recommended. (1.2)

*Prerequisite:* MTT 111

*Course fee*

*Typically offered spring only*

#### **MTT 211 Jig and Fixture Design (2-2) 3 Hours**

Designed to familiarize the student with the design fundamentals of drill jigs and milling, lathe, assembly, and grinding fixtures. (1.2)

*Prerequisites:* MTT 110 and MTT 210

*Course fee*

*Typically offered summer only*

#### **MTT 212 Precision Machining/ NIMS Credentialing (1-4) 3 Hours**

Designed to provide a National Credentialing studies class, this course will give each student an opportunity to demonstrate hands-on competency and related theory based on NIMS (National Institute of Metalworking Skills) nationally validated standards. The credentials are awarded on satisfactory completion of both the performance testing (producing precision parts on the machines) and the online related theory exams. Lectures and homework will focus on practical procedures and written test preparation. The fees for NIMS registration and 5 National Credentialing Exams are reflected in the Lab fee. (1.2)

*Prerequisite:* MTT 210 or consent of instructor

*Course fee*

*Typically offered fall only*

#### **MTT 215 Die Making II (2-2) 3 Hours**

A continuation of Diemaking I. Students build a punch press die, sharpen the tools and manufacture a part in class.

*Note:* Students with Machine Shop experience may contact the department chair if interested in alternative methods of meeting the prerequisite. (1.2)

*Prerequisites:* MTT 115

*Course fee*

*Typically not offered every term*

#### **MTT 216 Moldmaking II (2-2) 3 Hours**

Designed for students to learn advanced mold components, moldmaking, advanced mold techniques and understanding of plastics. The nature of this course will range from basic knowledge of plastics to actually building a small mold and molding it.

*Note:* Students with Machine Shop experience may contact the department chair if interested in alternative methods of meeting the prerequisite. (1.2)

*Prerequisite:* MTT 116

*Course fee*

*Typically not offered every term*

## Massage Therapy (MAS)

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

### **MAS 110 Massage Structure and Functions I (2-0) 2 Hours**

This course examines the anatomy and physiology of cells and tissues that underlie the normal functioning of the human body. Content includes an introduction to the principal bones and muscles, as well as their structure and functions at both a cellular and tissue level. Anatomic or physiological principles as related to practical application in therapeutic massage will be covered. Course also covers basic principles of pathology and the major pathological conditions likely to be encountered in massage therapy. (1.2)  
*Prerequisite:* BIO 111, MAS 119, and PED 228 (all C or better)  
*Corequisite:* MAS 112  
*Course fee*

### **MAS 112 Kinesiology and Palpation I (1-2) 2 Hours**

Course examines the skeletal and muscular systems that underlie the normal functioning of the body. Content includes a study of the structure of each major joint of the body and how the surrounding musculature affects the support and function of those joints. Principles of kinesiology are geared toward practical applications in the field of massage therapy, including major pathological conditions likely to be encountered. (1.2)  
*Prerequisite:* BIO 111, MAS 119, and PED 228 (all C or better)  
*Corequisite:* MAS 110  
*Course fee*

### **MAS 114 Massage: Communication and Business I (3-0) 3 Hours**

This course introduces students to interpersonal communication theories, and concepts of professional boundaries and ethical touch. This course also introduces students to business and legal practices of the massage therapy industry. Topics include tax information, licensing, liability insurance, and professionalism. (1.2)  
*Prerequisite:* BIO 111, MAS 119, and PED 228 (all C or better)  
*Corequisite:* MAS 112  
*Course fee*

### **MAS 116 Clinical Skills and Special Populations (2-2) 3 Hours**

This course introduces the students to the basic aspects of the procedural process of assessing, treatment planning and documenting in a massage clinic. Case-based applications and case discussions are utilized during the course to enhance the student's critical thinking skills. This course examines basic massage techniques and procedures when working with special populations including, but not limited to, geriatric, pregnant, cancer, and HIV clients. Students will learn basic chair massage skills and will practice and demonstrate massage techniques. (1.2)  
*Prerequisite:* BIO 111, MAS 119, and PED 228 (all C or better)  
*Corequisite:* MAS 114  
*Course fee*

### **MAS 119 Introduction to Massage Therapy (.5-1) 1 Hour**

This course is required to be accepted into the Massage Therapy Program. It offers students an introduction to therapeutic massage principles, theory, and techniques. Topics of discussion will include history, ethics, business, basic anatomical terminology and body mechanics. Students will learn basic Swedish massage techniques. Completion with a grade of "C" or better is required prior to admission to the Massage Therapy Program.  
*Note:* Must be 18 years of age to enroll. (1.2)  
*Course fee*

### **MAS 131 Massage Therapy I: Swedish (1-2) 2 Hours**

This course involves hands-on learning of basic Swedish massage techniques and strokes, including effleurage, friction, petrissage, tapotement, vibration, and joint movements. Content includes body mechanics, draping techniques, client intake, contraindications, and listening skills. (1.2)  
*Prerequisite:* BIO 111, MAS 119, and PED 228 (all C or better)  
*Corequisite:* MAS 116  
*Course fee*

### **MAS 132 Massage Therapy II: Integrative (1-2) 2 Hours**

This course introduces students to the fundamentals of three massage modalities; Craniosacral Therapy, Foot Reflexology, and Polarity Therapy. The concept of the "Fascial Web" is also introduced. (1.2)  
*Prerequisite:* BIO 111, MAS 119, and PED 228 (all C or better)  
*Corequisite:* MAS 131  
*Course fee*

### **MAS 210 Massage Structure and Functions II (2-0) 2 Hours**

This course examines the anatomy and physiology of tissues and organs that underlie the normal functioning of the body. Content focuses on the anatomical and physiological principles as related to therapeutic massage. This course also examines the impact of massage therapy on the normal functioning of body systems as well as principles of pathology and the major pathological conditions likely to be encountered in massage therapy. (1.2)  
*Prerequisite:* MAS 110, MAS 112, MAS 114, MAS 116, MAS 131, and MAS 132 (all C or better)  
*Corequisite:* MAS 212  
*Course fee*

### **MAS 212 Kinesiology and Palpation II (1-2) 2 Hours**

This course continues an examination of the skeletal and muscular systems that underlie the normal functioning of the body. Content includes an introduction to the complexities of movement, and the directional terminology associated with that movement. Students build upon their knowledge of the skeletal system and the core muscles for movement and stability. (1.2)  
*Prerequisite:* MAS 110, MAS 112, MAS 114, MAS 116, MAS 131, and MAS 132 (all C or better)  
*Corequisite:* MAS 210  
*Course fee*

### **MAS 214 Massage: Communication and Business II (3-0) 3 Hours**

This course covers more advanced communication techniques for managing the client-massage therapist relationship. Topics include effective listening, verbal and non-verbal communication, and professional boundaries. Comprehensive examination of professional

## Course Information and Descriptions

ethics, and legal and regulatory considerations for a massage therapy business will also be covered. (1.2)

*Prerequisite:* MAS 110, MAS 112, MAS 114, MAS 116, MAS 131, and MAS 132 (all C or better)

*Corequisite:* MAS 212

*Course fee*

### **MAS 233 Massage Therapy III: Rehabilitative (1-2) 2 Hours**

This course combines two therapeutic modalities - Neuromuscular Therapy and Sports Massage Therapy. Content includes both functional assessment and corrective concepts. (1.2)

*Prerequisite:* MAS 110, MAS 112, MAS 114, MAS 116, MAS 131, and MAS 132 (all C or better)

*Corequisite:* MAS 214

*Course fee*

### **MAS 234 Massage Therapy IV: Advanced Techniques (1-2) 2 Hours**

This course involves hands-on learning of the fascial system and fascial web. Content includes therapeutic massage techniques and strokes, with an understanding of the connective tissue which supports the body. This course also serves as an introduction to Eastern healing theories emphasizing the practical application and function of Shiatsu and exploration of the twelve channels. This course blends didactic lecture with hands-on practice. (1.2)

*Prerequisite:* MAS 110, MAS 112, MAS 114, MAS 116, MAS 131, and MAS 132 (all C or better)

*Corequisite:* MAS 233

*Course fee*

### **MAS 235 Therapeutic Massage Clinic (0-4) 1 Hour**

In this course students perform full-body therapeutic massage sessions and 20 minute chair massage sessions on members of the community and the College. Students apply principles, techniques, and procedures to assess and treat clients in a professional massage setting. Students will serve as both the therapist and office assistant. Students will demonstrate client/therapist communication skills, apply both basic and advanced massage techniques, use proper safety and sanitation practices, practice proper draping skills and body mechanics, and record each session with proper documentation. (1.2)

*Prerequisite:* MAS 110, MAS 112, MAS 114, MAS 116, MAS 131, and MAS 132 (all C or better)

*Corequisite:* MAS 234

*Course fee*

### **MAS 299 Special Topics: Therapeutic Massage (Variable) 1-4 Hours**

This course covers a variety of current topics in Therapeutic Massage that are not typically covered in other massage therapy courses. Course content format will vary depending on the topic covered. (1.2)

*Prerequisite:* MAS 132 (C or better) or Massage Therapy Licensure

*Course fee*

*May be taken four times for credit toward degree*

## Math Computer Science (MCS)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

### **MCS 121 Computer Science Concepts (3-0) 3 Hours**

An introduction to the field for majors and non-majors. The course previews the fundamental concepts and applications of computer science through a survey of topics including: algorithms and problem solving, computer organization, networking, databases, artificial intelligence, and graphics. Students will be exposed to a variety of common computer programming languages, application software, and tools through lab exercises and projects. (1.1)

*Prerequisite:* MTH 102 (C or better) and College Reading and Writing Readiness

*Course fee*

### **MCS 140 Computer Programming for Engineers and Scientists (3-0) 3 Hours**

This course is designed to fulfill the requirements established by the Association for Computing Machinery (ACM) for the CS1 course. It also is designed to meet the computer science requirements of engineering students with applications in math. This is a course in machine organization, algorithm development and programming style using the Java programming language. Applications include sorting and searching techniques, root solving procedures, and numerical integration. EXTENSIVE computer time commitment required. Previous programming experience is recommended. Students should not take both MCS 140 and MCS 141. (1.1)

*Prerequisite:* MTH 145 (C or better) or MTH 224 (C or better) or concurrent enrollment in MTH 145 or MTH 224

*Course fee*

**IAI: CS 911**

### **MCS 141 Computer Science I (4-0) 4 Hours**

The first in a sequence of courses for majors in Computer Science, this course introduces a disciplined approach to problem-solving, algorithm development and data abstraction. The course covers: branching, repetition and sequence control structures; object-oriented program design, testing and documentation using good programming style; and arrays, records, and files.

*Note:* Pre-engineering students should enroll in MCS 140. Students should not take both MCS 140 and MCS 141. (1.1)

*Prerequisites:* MTH 108 or MTH 107 (both C or better) or an appropriate score on the Math Placement Test

**IAI: CS 911**

### **MCS 142 Computer Science II (3-0) 3 Hours**

This course is designed to fulfill the requirements established by the Association for Computing Machinery (ACM) for the CS2 course. Using the Java computer language this course presents such topics as string processing, internal searching and sorting, recursion and data structures such as stacks, queues, linked lists, trees and graphs.

*Note:* Extensive time commitment required in computer lab.

Proficiency in a programming language is also recommended. (1.1)

*Prerequisite:* MCS 140 (C or better) or MCS 141 (C or better) or CIT 137 (C or better) or CIT 141 (C or better)

*Course fee*

**IAI: CS 912**

**MCS 240 Computer Organization and Architecture (3-0) 3 Hours**

This course is designed to fulfill the requirements established by the Association for Computing Machinery (ACM) for its Computer Organization and Architecture course. Topics include computer structure, machine language, assembly language principles, addressing techniques, macros, program segmentation and linkage. Extensive time commitment required in computer lab. (1.1)

*Prerequisite:* MCS 142 (C or better)

*Course fee*

**Mathematics (MTH)**

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

**MTH 101 Elementary Concepts of Mathematics (Variable) 1-4 Hours**

Basic principles of arithmetic: fractions, decimals, ratios, proportions, percent, very basic algebra, descriptive graphs and basic statistics from a calculator based perspective.

*Note:* This course does not apply to any associate degree or career certificate. For students required to complete MTH 115 or MTH 117, basic algebra readiness is better demonstrated by completing MTH 114. A specific graphing calculator is required for this course.

Contact the EMPS division office for a referral or additional information. (1.4)

*Prerequisite:* Score of 34 or higher on the arithmetic portion of the Math Placement Test. A student who scores below 34 on the arithmetic portion of the Math Placement Test should meet with a counselor to discuss options.

**MTH 102 Basic Algebra (4-0) 4 Hours**

This developmental course is the first course in the algebra sequence. Basic algebra topics include, but are not limited to: expressions, linear equations and functions with graphing, exponents, basic polynomial operations, and factoring. Modeling and problem solving will be introduced throughout the course.

*Note:* This course does not apply to any associate degree or career certificate program. A specific graphing calculator is required for the course. Contact the EMPS division office for details. (1.4)

*Prerequisite:* MTH 101 (C or better) or Basic Algebra Readiness which includes an appropriate score on the CLC Math Placement Test, Math ACT, or Math SAT.

**MTH 104 Geometry (4-0) 4 Hours**

This course covers the fundamental concepts of geometry for students who lack credit in one year of high school geometry with a grade of C or better or for students who need a review of the subject matter. The course includes the concepts of undefined terms, axioms and postulates, and theorems. Topics also include: construction, locus, and properties of lines, angles, polygons (with emphasis on triangles and quadrilaterals), and circles. The writing of proofs (deductive and indirect) and problem solving are integrated throughout the course.

*Note:* This course does not apply to any associate degree or certificate. (1.4)

*Prerequisite:* MTH 102 (C or better) or appropriate score on CLC Math Placement Test, Math ACT, or Math SAT.

**MTH 105 Preparatory Mathematics for General Education (5-0) 5 Hours**

This course focuses on developing mathematical maturity through problem solving, critical thinking, data analysis, and the writing and communication of mathematics. Students will develop conceptual and procedural tools that support the use of key mathematical concepts in a variety of contexts. Instruction will emphasize the connections between verbal, numerical, symbolic and graphical representation of the concepts being taught. Emphasis will be placed on modeling and problem solving, with techniques and manipulations covered in context. The three strands of the course are Algebra, functions, and modeling as they apply to linear, polynomial, rational, and exponential expressions, equations, and functions.

*Note:* This developmental course serves as a prerequisite for MTH 140, MTH 141, MTH 142, or MTH 108. This course does not apply to any associate degree or career certificate program. A specific graphing calculator is required for the course. Contact the EMPS division office for details. (1.4)

*Prerequisite:* MTH 101 (C or better) or Basic Algebra Readiness which includes an appropriate score on the CLC Math Placement Test, Math ACT, or Math SAT.

**MTH 108 Intermediate Algebra (5-0) 5 Hours**

This developmental course is the second course in the algebra sequence that further develops the concepts of basic algebra. Intermediate algebra topics include, but are not limited to: polynomial inequalities, systems of equations and inequalities; quadratic, rational, radical, exponential and logarithmic equations and functions. Modeling and problem solving will be introduced throughout the course.

*Note:* This course does not apply to any associate degree or career certificate program. A specific graphing calculator is required for the course. Contact the EMPS division office for details. (1.4)

*Prerequisite:* MTH 102 or MTH 105 (C or better) or appropriate score on the CLC Math Placement Test, Math ACT, or Math SAT.

**MTH 114 Applied Mathematics I (3-0) 3 Hours**

This course covers the basic principles of mathematics, with application to problems encountered in various industries. Review of fractions, decimals, ratios, proportions, and percent are covered. Introductory algebra, practical geometry, measuring systems, precision, accuracy, and scientific notation are also covered.

*Note:* For students required to complete MTH 115 or MTH 117, basic algebra readiness is better demonstrated by taking MTH 114. A specific calculator is required for this course. Contact EMPS division office for details. (1.2)

*Prerequisite:* Score of 34 or higher on the arithmetic portion of the math placement test. A student who scores below 34 on the arithmetic portion of the math placement test should meet with a counselor to discuss options.

**MTH 115 Applied Mathematics II (3-0) 3 Hours**

This course introduces practical geometry, measurement of plane and solid figures, precision, accuracy, elementary right triangle trigonometry, law of cosines, and law of sines.

*Note:* A specific graphing calculator is required for this course. Contact the EMPS Division office for details. (1.2)

*Prerequisite:* MTH 114 or MTH 102 (C or better) or appropriate score on the CLC Math Placement Test, Math ACT, or Math SAT.

## Course Information and Descriptions

### **MTH 117 Technical Mathematics I (3-0) 3 Hours**

This course covers college mathematics for students majoring in technology. It includes algebra, geometry and trigonometry.

*Note:* A specific graphing calculator is required for this course.

Contact the EMPS division office for details. (1.2)

*Prerequisite:* MTH 114 or MTH 102 (C or better) or appropriate score on the CLC Math Placement Test, Math ACT, or Math SAT.

### **MTH 118 Technical Mathematics II (4-0) 4 Hours**

This course is a continuation of MTH 117. Major topics are algebra, geometry, vectors, complex numbers, logarithms, matrices, inequalities and trigonometry.

*Note:* A specific graphing calculator is required for this course.

Contact the EMPS Division office for details. (1.2)

*Prerequisite:* MTH 117 (C or better) or an appropriate score on the CLC Math Placement Test, Math ACT, or Math SAT.

*Typically offered spring only*

### **MTH 121 Mathematics for Elementary Teaching I (3-0) 3 Hours**

This is the first college-level math course in a two course sequence which is intended for students planning to major in elementary education. This course is not intended to offer teaching methods to future educators. Topics include problem solving, sets, logic, functions, numeration systems, real number system, number theory, probability and statistics. To fulfill the general education core curriculum math requirement the second course in the sequence, Math 221 (Mathematics for Elementary Teaching II), must also be completed.

*Note:* A specific graphing calculator is required for this course.

Contact the EMPS Division office for details. (1.1)

*Prerequisite:* MTH 104 (C or better) or one year of High School Geometry (C or better); AND MTH 108 or MTH 107 (both C or better) or appropriate score on CLC Math Placement Test, Math ACT, or Math SAT.

### **MTH 122 College Algebra (4-0) 4 Hours**

This course is primarily intended for students who plan on taking MTH 127 Finite Mathematics, MTH 224 Calculus for Business and Social Sciences, or MTH 244 Discrete Mathematics. This course also serves as the first course for students planning to take the sequence of MTH 122 College Algebra and MTH 123 Trigonometry as a means of taking MTH 145 Calculus and Analytic Geometry I. College algebra topics include, but are not limited to: polynomial, rational, exponential, and logarithmic functions, graphs, and equations, systems of nonlinear equations and inequalities, matrices, conic sections, and sequences and series. Modeling and problem solving will be implemented throughout the course.

*Note:* A specific graphing calculator is required for this course.

Contact EMPS Division Office for details. Credit will not be given in MTH 122 to those with prior credit in MTH 144 Precalculus. This course will not meet the General Education Math Requirement for a transfer degree but may serve as a Math Requirement for a career degree. (1.1)

*Prerequisite:* MTH 104 (C or better) or one year of High School Geometry (C or better); AND MTH 108 or MTH 107 (both C or better) or appropriate score on CLC Math Placement Test, Math ACT, or Math SAT.

### **MTH 123 Trigonometry (3-0) 3 Hours**

This course is primarily for students who intend to take MTH 145 Calculus and Analytic Geometry I. Trigonometry topics include, but are not limited to: trigonometric functions and their graphs, trigonometric identities and equations, and applications of trigonometry. Modeling and problem solving will be implemented throughout the course.

*Note:* A specific graphing calculator is required for this course.

Contact EMPS division office for details. (1.1)

*Prerequisite:* MTH 122 (C or better) or concurrent enrollment in MTH 122 or an appropriate score on the CLC Math Placement Test, Math ACT, or Math SAT.

### **MTH 127 Finite Mathematics I (3-0) 3 Hours**

Designed primarily for business, commerce or social science students of whom it may be required. Topics include set theory, elementary combinatorics, probability, matrix algebra, introduction to linear programming, and Markov chains.

*Note:* Specific graphing calculator is required for this course.

Contact the EMPS division office for details. (1.1)

*Prerequisite:* MTH 122 (C or better) or appropriate score on the CLC Math Placement Test, Math ACT, or Math SAT.

**IAI: M1 906**

### **MTH 140 Contemporary Mathematics (3-0) 3 Hours**

This course is designed to meet general education mathematics requirements for students who are not majoring in mathematics, science or business. The goal of this survey course is to develop competency in analytical reasoning, problem solving, and multi-step decision making as well as exposing students to some current trends in mathematical thought. The emphasis is on mathematical reasoning and the solving of real-life problems involving mathematics. The course covers three or four of the following topics in depth: graph theory, counting techniques and probability, topics in geometry, logic/set theory, linear programming, and game theory. This course is not intended as a prerequisite for any other mathematics course.

*Note:* A specific graphing calculator is required for this course.

Contact the EMPS division office for details. (1.1)

*Prerequisite:* MTH 105 (C or better) –OR– MTH 106 (C or better) –OR– [two years of HS Algebra (C or better) –AND– Basic Algebra Readiness] –OR– appropriate score on CLC Math Placement Test, Math ACT or Math SAT.

**IAI: M1 904**

### **MTH 141 Quantitative Literacy (3-0) 3 Hours**

Designed to meet general education mathematics requirements for students who are not majoring in mathematics, science or business. A conceptual understanding is developed in several areas including: representing and analyzing data through such statistical measures as central tendency, dispersion, normal distribution, and correlation and regression; using logical statements and arguments in a real-world context; estimating, approximating and judging the reasonableness of answers; graphing and using polynomial functions and systems of equations in the interpretation and solution of problems; and selecting and using appropriate approaches and tools in formulating and solving real-world problems.

*Note:* A specific graphing calculator is required for this course.

Contact the EMPS division office for details. This course meets the math requirement in the Associate of Arts and Associate of Fine Arts degrees only. May be used as elective credit only in all other degrees. (1.1)

*Prerequisite:* MTH 105 (C or better) –OR– MTH 106 (C or better) –OR– [two years of HS Algebra (C or better) –AND– Basic Algebra Readiness] –OR– appropriate score on CLC Math Placement Test, Math ACT or Math SAT.

**IAI: M1 901**

**MTH 142 General Education Statistics (3-0) 3 Hours**

This course is designed to meet general education mathematics requirements for students who are not majoring in mathematics, science or business. The course covers the elementary principles of probability, descriptive statistics, and an introduction to inferential statistics. This course also covers an introduction to elementary computer techniques associated to the topics covered in the course. This course is not intended as a prerequisite for any other mathematics course.

*Note:* A specific graphing calculator is required for this course. Contact the EMPS Division office for details. Credit will not be given in MTH 142 to those with prior credit in MTH 222. (1.1)

*Prerequisite:* MTH 105 (C or better) –OR– MTH 106 (C or better) –OR– [two years of HS Algebra (C or better) –AND– Basic Algebra Readiness] –OR– appropriate score on CLC Math Placement Test, Math ACT or Math SAT.

**IAI: M1 902**

**MTH 144 Precalculus (5-0) 5 Hours**

This course is primarily for students who intend to take MTH 145 Calculus and Analytic Geometry I. Precalculus topics include, but are not limited to: polynomial, rational, exponential, logarithmic, and trigonometric functions, graphs, and equations, trigonometric identities, applications of trigonometry, systems of nonlinear equations and inequalities, matrices, conic sections, and sequences and series.

*Note:* Use of a specific graphing calculator will be integrated throughout the course. Contact EMPS Division Office for details. Students who earn a grade of C in MTH 108 or MTH 107 must complete the sequence of MTH 122 College Algebra and MTH 123 Trigonometry as a prerequisite for MTH 145 Calculus and Analytic Geometry I. (1.1)

*Prerequisite:* MTH 104 (C or better) or one year of High School Geometry (C or better); AND MTH 108 or MTH 107 (both B or better) or appropriate score on CLC Math Placement Test, Math ACT, or Math SAT.

**MTH 145 Calculus and Analytic Geometry I (5-0) 5 Hours**

This course covers the calculus of algebraic and transcendental functions. Analytic geometry topics are limited to the line and circle. Calculus topics include limits, differentiation and integration of both algebraic and transcendental functions, including trigonometric functions, with applications.

*Note:* A specific graphing calculator is required for this course. Contact the EMPS division office for details. (1.1)

*Prerequisite:* MTH 123 (C or better) or MTH 144 (C or better) or appropriate score on CLC Math Placement Test, Math ACT, or Math SAT.

**IAI: M1 900-1, MTH 901**

**MTH 146 Calculus and Analytic Geometry II (4-0) 4 Hours**

This course is a continuation of MTH 145. Techniques of integration, applications of integration, differential equations, parametric equations, polar coordinates and infinite sequences and series will be covered.

*Note:* A specific graphing calculator is required for this course. Contact the EMPS division office for details. (1.1)

*Prerequisite:* MTH 145 (C or better)

**IAI: M1 900-2, MTH 902**

**MTH 221 Mathematics for Elementary Teaching II (3-0) 3 Hours**

This is the second college-level math course in a two course sequence which is intended for students planning to major in elementary education. This course is not intended to offer teaching methods to future educators. Topics include probability, statistics, modeling, plane and solid geometry, measurement, similarity and congruence, geometric constructions, area, volume, classroom manipulatives, and/or computer software. (1.1)

*Prerequisite:* MTH 121 (C or better)

**IAI: M1 903**

**MTH 222 Business Statistics (4-0) 4 Hours**

This course covers solving real-life business applications in statistics. The course includes, but is not limited to, using principles of probability, descriptive statistics, and an introduction to one and multi-sample inferential statistics such as the F-test and Analysis of Variance.

*Note:* A specific graphing calculator is required for this course. Contact the EMPS Division office for details. (1.1)

*Prerequisite:* MTH 107 (C or better) –OR– MTH 108 (C or better) –OR– appropriate score on CLC Math Placement Test, Math ACT, or Math SAT.

**IAI: M1 902, BUS 901**

**MTH 224 Calculus for Business and Social Science (4-0) 4 Hours**

This course includes analytical geometry and calculus topics such as functions and their graphs, rectangular coordinate systems, limits, differentiation and integration of algebraic, logarithmic and exponential functions. Applications are included along with selected topics from multivariable calculus.

*Note:* A specific graphing calculator is required for this course. Contact the EMPS division office for details. (1.1)

*Prerequisite:* MTH 122 (C or better) or MTH 144 (C or better) or appropriate score on CLC Math Placement Test, Math ACT, or Math SAT.

**IAI: M1 900-B**

**MTH 225 Introduction to Linear Algebra (3-0) 3 Hours**

This is a first course in vectors, matrices, vector spaces and linear transformations and includes a substantial proof component. Applications of topics to problems arising in engineering and business are included. The course may be taken concurrently with, but should not replace, a course in multivariable calculus. A student should expect to take a more complete linear algebra course at a baccalaureate transfer institution. Computer software will be integrated as appropriate.

*Note:* A specific graphing calculator is required for this course. Contact the EMPS division office for more details. (1.1)

*Prerequisite:* MTH 146 (C or better)

*Typically offered spring only*

**IAI: MTH 911**

**MTH 227 Ordinary Differential Equations (3-0) 3 Hours**

This is an introductory course that involves the solving of various ordinary linear and nonlinear differential equations of first and higher order and the solving of systems of differential equations. Methods include separation of variables, various substitution techniques, use of integrating factors, undetermined coefficients, and variation of parameters. Laplace transforms, infinite series, and selected numerical methods. Applications include simple harmonic motion, population growth and decay, cooling, L-R-C circuits, and mixing problems. Uniqueness and existence theorems are covered. It is intended for students of science, mathematics, and engineering

## Course Information and Descriptions

that features modeling and graphical visualization as central themes.  
*Note:* Computer software and graphing calculators are integrated into the course where appropriate. (1.1)  
*Prerequisite:* MTH 146 (C or better)  
**IAI: MTH 912**

**MTH 244 Discrete Mathematics (3-0) 3 Hours**  
Introduction to the mathematical analysis of finite collections and to the mathematical foundations of sequential machines, computer system design, data structures and algorithms. Topics include, but are not restricted to sets, counting, recursion, graph theory, trees, networks, Boolean algebras, automata, and formal grammars and languages. This course is a beginning course in the mathematics of computer science.  
*Note:* Specific graphing calculator is required for this course. Contact the EMPS division office for details. (1.1)  
*Prerequisite:* MTH 122 (C or better) or appropriate score on CLC Math Placement Test, Math ACT, or Math SAT.  
*Typically offered spring only*  
**IAI: M1 905, CS 915**

**MTH 246 Calculus and Analytic Geometry III (4-0) 4 Hours**  
This course is a continuation of MTH 146. Topics include vectors in two and three dimensions, vector functions, multiple integrals, partial derivatives, and vector calculus. Solid analytic geometry topics include quadric surfaces, cylindrical and spherical coordinates and curves in 3-space.  
*Note:* A specific graphing calculator is required for this course. Contact the EMPS Division office for details. (1.1)  
*Prerequisite:* MTH 146 (C or better)  
**IAI: M1 900-3, MTH 903**

**MTH 299 Special Topics in Mathematics (Variable) 1-3 Hours**  
This course addresses the in-depth study of special topics in mathematics that do not have specific courses in the catalog. Course content will vary depending on the topic being studied. Topics may include but are not limited to: mathematical statistics, real analysis, complex analysis, general topology, abstract algebra, combinatorics, set theory, mathematical logic etc. This course is repeatable up to three times, any topic only once, for a maximum of 6 hours towards degree completion. (1.2)  
*May be taken four times, but any topic only once*

## Mechanical Engineering Technology (MET)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

**MET 111 Manufacturing Processes (3-0) 3 Hours**  
This course introduces students to the processes, production procedures and materials used in manufacturing. Casting, machining, forging, rolling, treatment and production of engineering materials is also studied. (1.2)  
*Prerequisite:* College Reading and Writing Readiness  
*Course fee*

**MET 112 Basic Metallurgy I (3-0) 3 Hours**  
This course introduces students to metals with emphasis on their physical and mechanical properties relating to applications including metal forming, heat treatment and surface treatment of carbon and alloy steels. (1.2)  
*Prerequisite:* College Reading and Writing Readiness

**MET 113 Basic Metallurgy II (3-0) 3 Hours**  
This course is a continuation of MET 112 Basic Metallurgy I with emphasis on cast irons, nonferrous metals and their alloys. Foundry casting, machining, forming, welding and power metallurgy processes are also covered. (1.2)  
*Prerequisite:* MET 112  
*Typically offered even years only.*

**MET 115 Industrial Pneumatics and Hydraulics (3-0) 3 Hours**  
This course introduces students to the study of fluid power technology using liquid or compressed air as the transfer media. Complete hydraulic and pneumatic systems are studied including power sources, reservoirs, pumps, compressors, lines, valves and actuators. (1.2)  
*Prerequisite:* ELI Accuplacer score of 221 or higher, APT score of 80 or higher, ELI 103 (C or better), ELI 104 (C or better), ELI 110 (C or better), or College Reading and Writing Readiness AND Basic Algebra Readiness.

**MET 116 Machine Components and Repair (2-2) 3 Hours**  
This course identifies basic machine components and demonstrates common machine component repair and replacement operations. Machine parts such as belts, gears, seals, bearings, and fasteners will be discussed and repaired. (1.2)  
*Prerequisite:* ELI Accuplacer score of 221 or higher, APT score of 80 or higher, ELI 103 (C or better), ELI 104 (C or better), ELI 110 (C or better), or College Reading and Writing Readiness AND Basic Algebra Readiness.  
*Course fee*

**MET 117 Pump Overhaul and Repair (2-2) 3 Hours**  
This course covers the processes needed to diagnose, troubleshoot, repair and maintain common types of centrifugal pumps. (1.2)  
*Prerequisite:* ELI Accuplacer score of 221 or higher, APT score of 80 or higher, ELI 103 (C or better), ELI 104 (C or better), ELI 110 (C or better), or College Reading and Writing Readiness AND Basic Algebra Readiness.  
*Course fee*

**MET 118 Machinery's Handbook (3-0) 3 Hours**  
This course explores the intent, use, and application of the Machinery's Handbook. It applies the principles, concepts, and data in the Handbook to industrial related projects. Emphasis will be placed on chart usage and data retrieval from this handbook. (1.2)  
*Prerequisite:* ELI Accuplacer score of 221 or higher, APT score of 80 or higher, ELI 103 (C or better), ELI 104 (C or better), ELI 110 (C or better), or College Reading and Writing Readiness AND Basic Algebra Readiness.

**MET 131 Introduction to Robotics (2-2) 3 Hours**  
This course is an introduction to the technology of robotics. Topics include definitions, classifications, components, hardware design, kinematics analysis, sensors and perception, navigation, control systems, and interface hardware. (1.2)  
*Prerequisite:* College Reading and Writing Readiness AND MTH 117 or MTH 122 or higher-level math course (all C or better) or an appropriate score on the Math Placement Test or Math ACT of 25 or higher.  
*Course fee*

**MET 212 Mechanisms (4-0) 4 Hours**

This course introduces students to the study of motion, velocity, and acceleration as they pertain to the design of gears, linkages, and other mechanical assemblies which transmit or convert motion. (1.2)

*Prerequisite:* College Reading and Writing Readiness and Basic Algebra Readiness

*Recommended:* PHY 111 OR MTH 117 or higher

**MET 214 Mechanical Design and Drafting (2-2) 3 Hours**

This course introduces students to the design and graphic representation of basic machine parts such as gears, cams, castings, stampings, the redesign of simple mechanisms, piping drawing, and welding representations. (1.2)

*Prerequisite:* EGR 121 or CAD 117

*Course fee*

**MET 215 Machine Design (5-0) 5 Hours**

This is a capstone course that covers the application of empirical and analytical techniques used in the design of mechanical components.

Combined states of stress using Mohr's Circle, design criteria (including maximum shear stress, Mises-Hencky strain energy, and fatigue) and the design and analysis of mechanical elements (including clutches, brakes, belts, chains, bearings, fasteners, gearing, springs and cams) are developed. (1.2)

*Prerequisite:* EGR 215 or EGR 216 (both C or better)

*Recommended:* Prior completion of PHY 111 or higher level Physics AND MTH 117 or higher level Math

**MET 216 Applied Finite Element Analysis (2-2) 3 Hours**

This course is designed to explain how to apply finite element analysis to real-world problems. Students will be introduced to finite element analysis software and will learn the proper techniques of how it is used to test engineering designs for failure modes in the virtual environment. (1.2)

*Prerequisite:* EGR 121 and EGR 216 or EGR 222 (all C or better)

**MET 219 Plant Layout and Materials Handling (3-0) 3 Hours**

This course examines the relationship between good plant layout and efficient materials handling. Selection and arrangement of production machinery, cost justification, product and process layout schemes, and techniques of making layouts is covered. (1.2)

*Prerequisite:* College Reading and Writing Readiness and Basic Algebra Readiness

*Recommended:* MTH 117 (C or better)

**MET 231 Mechatronics (2-2) 3 Hours**

This course will provide students with technical knowledge related to industrial automation systems. Mechanical, electrical and electronic components, in terms of theory of operation and application, will be studied in detail. The use of microprocessors as primary control component will be the major topic of the second half of the course. (1.2)

*Prerequisite:* MET 131 (C or better) or Consent of Instructor

*Course fee*

**MET 299 Special Topics: Mechanical Engineering Technology (Variable) 1-4 Hours**

This course provides students with additional information about specialized areas in mechanical engineering. Topics will be identified for each section of the course. This course is repeatable up to three times, any topic only once, for a maximum of 6 hours towards degree completion. (1.2)

*Prerequisite:* To be determined relative to topic

*May be taken four times, but any topic only once*

## Meteorology

Meteorology courses are listed under Earth Science.

## Medical Assisting (MOA)

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

**MOA 111 Clinical Medical Assisting I (3-3) 4 Hours**

This course introduces the students to the role of the Medical Assistant in the clinical area of the medical clinic, hospital or laboratory. Topics include medical ethics and law, asepsis, infection control, patient history and record management, vital signs, and administering medications. (1.2)

*Prerequisite:* Basic Algebra Readiness, BIO 111 or BIO 244 and BIO 245 (all C or better)

*Corequisites:* HIT 111, HIT 119 and MOA 112 (C or better if already completed)

*Course fee*

**MOA 112 Basic Medical Office and Billing Procedures (3-2) 4 Hours**

This course provides students with a foundation of knowledge and skills in the front office of a medical or dental office. It introduces students to health records, insurance processing procedures, and basic CPT and ICD-CM Coding. Some topics include: scheduling appointments, telephone techniques, bookkeeping and banking, completing health insurance forms, and assigning insurance codes. Students should be basic keyboard proficient. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

**MOA 115 Insurance Coding for Medical Assistants (2-2) 3 Hours**

This course introduces the theory, structure, and organization of the Current Procedural Terminology (CPT) and International Classification of Diseases (Current edition) Clinical Modification (ICD-CM) coding systems. Emphasis will be on the application of coding principles to accurately assign CPT and ICD-CM codes in billing and reimbursement will be included. This course is not designed for those who want to become medical coders in hospitals. (1.2)

*Prerequisites:* HIT 111, BIO 111 or BIO 244 and BIO 245 (all C or better)

*Corequisite:* MOA 112 (C or better if already completed)

*Course fee*

## Course Information and Descriptions

### **MOA 211 Clinical Medical Assisting II (3-3) 4 Hours**

This course provides the medical assisting student with skills beyond the basic introductory course. This will be an overview of advanced skills. Emphasis includes: assisting with medical specialties, electrocardiography, assisting with diagnostic imaging. Additional focus will be on surgical instrumentation and assisting with surgical procedures. (1.2)

*Prerequisite:* BIO 111 or BIO 244 and BIO 245 AND HIT 111 , HIT 119 , MOA 111 and MOA 112 (all C or better)

*Corequisite:* MOA 115 or HIT 117 and HIT 131 (formerly HIT 118) AND PBT 110 and PBT 115 (all C or better)

*Course fee*

### **MOA 212 Medical Assisting Externship (0-12 hours) 3 Hours**

This requires the medical assistant student to integrate and apply knowledge and skills from all previous medical assistant courses in actual patient care settings. Students will perform medical assistant administrative, clinical, and laboratory duties under the supervision of a mentor to effectively transition to the role of a medical assistant. The Medical Assistant Externship takes place during the final semester of the program. (1.2)

*Prerequisite:* MOA 115 or HIT 117 and HIT 131 (formerly HIT 118) AND MOA 211 , PBT 110 , and PBT 115 (all C or better).

*Course fee*

### **MOA 299 Special Topics: MOA (Variable) 1-3 Hours**

This course is designed to introduce students to specialized instruction in current medical assisting topics. This course will be utilized as a circumstantial elective for the AAS degree only. Course content will vary depending on the topic being studied.

*Note:* Topics may include medical assisting issues, specialty practice research, certification review, etc. This course may be taken twice, any topic only once, for a maximum of four credit hours towards degree completion. (1.2)

*Prerequisite:* To be determined relative to topic

## Medical Imaging (MIM)

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

### **MIM 110 Introduction to Medical Imaging (3-0) 3 Hours**

Provides the student with a basic understanding of the role of medical imaging in the health care delivery system. The student will develop basic skills in radiography and patient care. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

### **MIM 111 Radiographic Anatomy and Positioning I (4-2) 5 Hours**

Includes a study of the radiographic anatomy, examination procedure, medical terminology and pathology for the chest, abdomen, ribs, pelvis, and upper and lower extremities. Students will learn how to read various types of technique charts and program the x ray units for correct exposures for these examinations. (1.2)

*Prerequisite:* Admission to the Medical Imaging Program

*Course fee*

### **MIM 112 Principles of Radiographic Exposure (2-2) 3 Hours**

Covers the factors that control the production of a radiographic image and provides a basic understanding of radiation protection. (1.2)

*Prerequisite:* Admission to the Medical Imaging Program

*Corequisite:* MIM 110 and MIM 111 (C or better in both)

*Course fee*

### **MIM 113 Radiographic Anatomy and Positioning II (4-2) 5 Hours**

Includes a study of the radiographic anatomy, examination procedure, medical terminology, and pathology for the head and vertebral column. Students will learn how to read various types of technique charts and program the x ray units for correct exposures for these examinations. (1.2)

*Prerequisite:* MIM 110, MIM 111, MIM 112 and MIM 170 (C or better in all)

*Course fee*

### **MIM 114 Clinical Practice I (0-16) 3 Hours**

Supervised competency based clinical practice. Emphasis on routine chest, abdomen, upper and lower extremities. (1.2)

*Prerequisite:* MIM 110 and MIM 111 and MIM 112 and MIM 170 (C or better in all)

*Corequisite:* MIM 113

*Course fee*

### **MIM 115 Clinical Practice II (0-16) 3 Hours**

Supervised competency based clinical practice. Emphasis on routine examinations of the appendicular and axial skeleton. (1.2)

*Prerequisite:* MIM 113 and MIM 114 (C or better)

*Course fee*

### **MIM 116 Advanced Radiographic Procedures (1-0) 1 Hour**

Studies the special radiographic procedures routinely performed in the majority of radiology departments. Includes identification of the contrast agents, anatomical structures investigated, and examination procedures. (1.2)

*Prerequisite:* MIM 113 and MIM 114 (C or better)

*Corequisite:* MIM 115

*Course fee*

### **MIM 170 Introduction to the Clinical Education Center (0-8) 1 Hour**

This course is an introduction to the Medical Imaging department and clinical practice. The student will become familiar with the physical plant and protocols of the clinical education center where he/she will receive clinical experience. The course will include supervised performance of routine radiographic examinations of the chest, abdomen, and appendicular skeleton. (1.2)

*Prerequisite:* Admission to the Medical Imaging Program

*Corequisites:* MIM 111 and MIM 112

*Course fee*

### **MIM 175 Clinical Education Practicum (0-16) 3 Hours**

Supervised competency based clinical practice for those individuals returning to the Medical Imaging program. (1.2)

*Course fee*

### **MIM 210 Technical Aspects of Patient Care (2-0) 2 Hours**

Surveys physical patient assessment, specialty medical equipment, medical emergencies, and trauma radiography. Pharmacologic properties of contrast media and venipuncture principles are also emphasized. (1.2)

*Prerequisite:* MIM 115 and MIM 116 (both C or better).

*Course fee*

**MIM 211 Imaging Equipment (5-2) 6 Hours**

Covers mechanical and electrical physics applied to x-ray equipment and factors affecting x-ray emission. Survey of digital vascular radiography and interventional procedures. Labs and discussions in principles of radiographic exposure and image evaluation are included. (1.2)

*Prerequisite:* MIM 115 and MIM 116 (both C or better).

*Course fee*

**MIM 212 Clinical Practice III (0-18) 3 Hours**

Supervised clinical practice. Emphasis on routine special procedures, surgical, trauma, and mobile radiography. Observations and practice in vascular and interventional procedures are included. (1.2)

*Prerequisite:* MIM 115 and MIM 116 (both C or better).

*Course fee*

**MIM 213 Medical Imaging Pathology (2-0) 2 Hours**

Includes etiology and processes of trauma and disease. The emphasis is placed on radiographic pathology of body systems. Pathology seen with computed tomography, ultrasound, and magnetic resonance imaging is discussed. (1.2)

*Prerequisite:* MIM 116 (C or better)

*Course fee*

**MIM 214 Advanced Topics in Radiography (5-2) 6 Hours**

Surveys radiation therapy and nuclear medicine. Radiation biology, radiation regulations, radiation measurements, pediatric and geriatric radiography, and sensitometry and quality control are included. Labs and lectures include principles of radiographic exposure, quality control, and film critique. (1.2)

*Prerequisite:* MIM 210, MIM 211, and MIM 212 (C or better in all)

*Course fee*

**MIM 215 Clinical Practice IV (0-18) 3 Hours**

Supervised competency based clinical practice. Emphasis continued on routine and vascular special procedures, surgical, trauma, and mobile radiography. Includes orientation rotations to advanced imaging modalities. (1.2)

*Prerequisite:* MIM 210, MIM 211, and MIM 212 (C or better in all)

*Course fee*

**MIM 216 Computed Imaging (2-0) 2 Hours**

Introduces the student to computer design as it applies to radiology, including a survey into computed tomography and digital radiography functions and processing parameters. Discusses concepts from paradiologic modalities, including computed tomography, magnetic resonance imaging, cardiovascular/interventional radiography, diagnostic ultrasound, and nuclear medicine. Physics and imaging parameters of computed tomography and planar image techniques are emphasized. Case studies will be presented. (1.2)

*Prerequisite:* MIM 210, MIM 211, and MIM 212 (C or better in all)

**MIM 217 Applied Radiation Biology (1-0) 1 Hour**

Surveys the somatic and genetic effects of ionizing radiation. (1.2)

*Prerequisite:* MIM 116 (C or better)

**MIM 218 Survey of Radiology Administration (1-0) 1 Hour**

Surveys the structure and function of the radiology department and its relation to the hospital and the health care consumer. (1.2)

*Prerequisite:* MIM 113 (C or better)

**MIM 219 Radiography Seminar (2-0) 2 Hours**

Review and discussion of radiographic principles, techniques, and methods. Emphasis is placed on the interdependence of theory and principles. (1.2)

*Prerequisite:* MIM 211 and MIM 212 (both C or better)

**MIM 251 MRI Physics & Instrumentation (3-0) 3 Hours**

This course introduces the principles of magnetic resonance imaging. The course will focus on imaging sequences/parameters and their effects quality exams. Imaging hardware and production, quality assurance, and safety considerations are also presented. (1.2)

*Prerequisite:* Admission to the MRI Program

**MIM 252 CT Physics, Instrumentation, and Procedures I (3-0) 3 Hours**

This course introduces the student to physical principles and image acquisition parameters of computed tomography, surveys instrumentation and digital processing parameters, and discusses scanning techniques as applied to single and multislice spiral CT. Contrast media, medical emergencies, and physical patient assessment as applied to CT are also discussed. Imaging protocols for the head, neck, chest, and abdomen are emphasized. (1.2)

*Prerequisite:* Acceptance into the Computed Tomography Program or Approval by department chair.

**MIM 253 MRI Procedures (2-0) 2 Hours**

This course introduces MRI scanning procedures and application. Scanning parameters and patient care will be emphasized for examination of the head and neck, spine, thorax, abdomen/pelvis, musculoskeletal and advanced imaging procedures. Radiographic critiques and quality assurance will also be emphasized. (1.2)

*Prerequisite:* Admission to the MRI Program

**MIM 254 CT Physics, Instrumentation, and Procedures II (3-0) 3 Hours**

This course introduces the student to the principles of single slice, multislice and volume scanning computed tomography. It will also cover CT fluoroscopy, angiography, and quality control. Other topics include patient care and assessment, medical emergencies, radiation protection, aseptic techniques and imaging procedures of the musculoskeletal and reproductive systems. Trauma imaging will also be discussed for the central nervous, respiratory, cardiovascular, digestive, urinary, musculoskeletal and reproductive systems. (1.2)

*Prerequisite:* MIM 252 (C or better) and Acceptance into the CT program OR Approval by department chair

**MIM 255 MRI Sectional Anatomy & Pathology (4-0) 4 Hours**

This course introduces the students to cross sectional MRI anatomy and pathology. Emphasis is placed on the central nervous system, musculoskeletal system, neck, chest, abdomen and pelvis. The vascular system is also presented. (1.2)

*Prerequisite:* Admission to the CT or MRI Program.

**MIM 256 CT Sectional Anatomy and Pathology I (3-0) 3 Hours**

This course introduces the students to cross sectional CT anatomy and pathology. Emphasis is placed on the skull, central nervous, soft tissue neck, respiratory, and digestive systems. Trauma imaging and pediatric specificities of these systems are also presented. (1.2)

*Prerequisite:* Admission into the CT program or Approval by department chair.

## Course Information and Descriptions

### **MIM 258 CT Sectional Anatomy and Pathology II (3-0) 3 Hours**

This course is a continuation of CT Sectional Anatomy and Pathology I (MIM 256). Emphasis is placed on the cross-sectional anatomy and pathology of the pelvis, vertebral column/spinal cord, reproductive, urinary, musculoskeletal, and cardiovascular/systemic vascular systems. Trauma imaging and pediatric specificities are also presented. Comprehensive reviews of all systemic anatomy and pathology are completed. (1.2)  
*Prerequisite:* MIM 256 (C or better) and Acceptance into the CT program OR Approval by department chair

### **MIM 271 Clinical Practice V (0-16) 3 Hours**

Supervised competency based clinical practice. Emphasis continued on routine and non-routine radiographic procedures. Students will complete all competencies required by the American Registry of Radiologic Technologists. (1.2)  
*Prerequisites:* MIM 214, MIM 215, and MIM 216 (C or better in each)  
*Course fee*

### **MIM 272 MRI Practicum (0-15) 3-6 Hours**

This course introduces the student to supervised competency based clinical practice. Emphasis is placed on patient care, safety considerations, positioning and scanning parameters, MR imaging procedures, and non-imaging procedures. (1.2)  
*Prerequisite:* Admission to the MRI Program  
*Course fee*  
*May be taken twice for credit toward degree*

### **MIM 273 CT Practicum I (1-10) 2 Hours**

This course introduces the student to supervised competency based clinical practice. Emphasis is placed on patient care, safety considerations, positioning and scanning parameters, CT imaging procedures, and non-imaging procedures. (1.2)  
*Prerequisite:* Acceptance into the CT program or Approval by department chair.  
*Course fee*

### **MIM 274 CT Practicum II (1-10) 2 Hours**

This course provides students continued supervised competency based clinical practice. Emphasis is placed on patient care, safety considerations, positioning and scanning parameters, CT imaging procedures, and non-imaging procedures. (1.2)  
*Prerequisite:* MIM 273 (C or better) and Acceptance into the CT Program OR Approval by department chair  
*Course fee*

## Music (MUS)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

### **MUS 120 Vocal Ensembles (0-2) 1 Hour**

Understanding and enjoyment of choral music. Student may choose the Gospel Choir, CLC Singers, or Choir of Lake County.  
*Note:* The CLC Singers requires an audition. (1.1)  
*Course fee*  
*May be taken four times for credit toward degree*

### **MUS 121 Voice Class I (1-1) 1 Hour**

Introduction to singing techniques beginning with group singing and gradually introducing solo singing. No vocal background is needed. For non-music majors. (1.1)  
*Course fee*

### **MUS 122 Voice Class II (1-1) 1 Hour**

Introduction to singing techniques with emphasis on repertoire. A continuation of MUS 121. (1.1)  
*Prerequisite:* MUS 121  
*Course fee*

### **MUS 123 Wind Ensemble (0-2) 1 Hour**

Understanding and enjoyment of instrumental music through selected examples of standard instrumental ensemble literature of all periods. (1.1)  
*Course fee*  
*May be taken four times for credit toward degree*

### **MUS 124 Music Appreciation (3-0) 3 Hours**

This course introduces standard concert music through intensive guided listening. Representative works by major composers from each period are chosen to illustrate the principal styles, forms and techniques of vocal and instrumental music. (1.1)  
**IAI: F1 900**

### **MUS 125 Aural Skills I (0-2) 1 Hour**

(Formerly MUS 142) This course introduces students to the development of skills in melodic, harmonic and rhythmic dictation and sight singing. (1.1)  
*Corequisite:* MUS 128

### **MUS 126 Aural Skills II (0-2) 1 Hour**

(Formerly MUS 149) This course is a continuation of MUS 125 - Aural Skills I and further develops skills in melodic, harmonic and rhythmic dictation and sight singing. (1.1)  
*Prerequisite:* MUS 125 (C or better)  
*Corequisite:* MUS 129 (C or better)

### **MUS 127 Fundamentals of Music Theory (3-0) 3 Hours**

This course provides the background to interpret and understand the language of music through the study of notation, rhythm, scales, intervals, triads, cadences, basic forms and musical terms. Students are prepared for the study of harmony and for practical musical activity. Suitable for pre-teachers and non-music majors. (1.1)

### **MUS 128 Theory of Music I (3-0) 3 Hours**

This course begins an intensive study of musical language including analysis, recognition and writing of chords and harmonic progressions leading to formal music composition. Students without keyboard background should combine this course with MUS 145 Piano Class I (1 credit hour). (1.1)  
*Prerequisite:* MUS 127 (C or better) or a passing score on the Music Theory Placement exam  
*Corequisite:* MUS 125

### **MUS 129 Theory of Music II (3-0) 3 Hours**

This course continues an intensive study of musical language including analysis, recognition and writing of chords and harmonic progressions leading to formal music composition. Particular attention is paid to harmonic language and its effect upon musical form. (1.1)  
*Prerequisite:* MUS 128 (C or better)  
*Corequisite:* MUS 126

**MUS 140 20th Century Music (3-0) 3 Hours**

A non-technical listening course emphasizing recognition and understanding of various styles of 20th century music including jazz and popular music. Emphasis placed on music through recordings, scores, and performance of representative works of each period. Comparison of styles and consideration of music in relation to other fine arts and to the general historical background. (1.1)

**MUS 141 Applied Music-Voice I (Variable) 1-2 Hours**

This course is designed for the vocalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate in art or science degree. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

**MUS 143 Applied Music Piano I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

**MUS 144 Applied Music-Jazz Piano I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

**MUS 145 Piano Class I (1-1) 1 Hour**

An introduction to basic playing, keyboard chords, and music reading. Interpretation of various music styles is considered. For beginners or those who have not studied for a considerable time.

*Note:* Students should combine this course with Fundamentals of Music (MUS 127). (1.1)

*Course fee*

**MUS 146 Piano Class II (1-1) 1 Hour**

A continuation of MUS 145. Provides additional opportunity for study and practice of more advanced compositions for piano. (1.1)

*Prerequisite:* MUS 145

*Course fee*

**MUS 147 Guitar Class I (1-1) 1 Hour**

Introduction to the fundamentals of the guitar for development of playing skills, reading, improvisation and technique. Explores the use of music theory as it relates to the guitar in terms of keys, chord construction and progression. Emphasis on variety of songs and historical styles for repertoire development.

*Note:* MUS 127 Fundamentals of Music is strongly recommended as a companion course for students who need work in reading pitches and rhythms. (1.1)

*Course fee*

**MUS 148 Guitar Class II (1-1) 1 Hour**

A continuation of MUS 147. It develops and advances skills learned and introduces new concepts and techniques. (1.1)

*Prerequisite:* MUS 147

*Course fee*

**MUS 160 Applied Music - Violin I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

**MUS 161 Applied Music-Viola I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

**MUS 162 Applied Music Cello I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

**MUS 163 Applied Music-String Bass I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

**MUS 164 Applied Music-Flute I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*



**MUS 187 Applied Music-Guitar I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

**MUS 188 Applied Music-Electric Bass I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

**MUS 223 Jazz Ensemble (0-2) 1 Hour**

Understanding and enjoyment of instrumental music through selected examples of standard instrumental ensemble literature of all periods. (1.1)

*Course fee*

*May be taken four times for credit toward degree*

**MUS 224 Music Literature (3-0) 3 Hours**

The historical development of western music, including various musical styles and periods and the contribution of key composers in shaping the western musical tradition. (1.1)

*Prerequisite:* MUS 128

**IAI: F1 902**

**MUS 225 Aural Skills III (0-2) 1 Hour**

This course is a continuation of MUS 126 - Aural Skills II and further develops skills in melodic, harmonic and rhythmic dictation and sight singing. (1.1)

*Prerequisite:* MUS 126 taken subsequent to Fall 2017 (C or better)

*Corequisite:* MUS 228

**MUS 226 Aural Skills IV (0-2) 1 Hour**

This course is a continuation of MUS 225 - Aural Skills III and further develops skills in melodic, harmonic and rhythmic dictation and sight singing. (1.1)

*Prerequisite:* MUS 225 (C or better)

*Corequisite:* MUS 229

**MUS 228 Theory of Music III (3-0) 3 Hours**

This course continues an intensive study of musical language including analysis, recognition and writing of chords and harmonic progressions leading to formal music composition. Particular attention is paid to harmonic language and its effect upon musical form. (1.1)

*Prerequisite:* MUS 129 (C or better)

*Corequisite:* MUS 225

**MUS 229 Theory of Music IV (3-0) 3 Hours**

This course completes the study of the structure of classical and avant-garde music in the 20th century and explores the structure of atonal and tonal music from a linear perspective. (1.1)

*Prerequisite:* MUS 228 (C or better)

*Corequisite:* MUS 226

**MUS 241 Applied Music-Voice II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

**MUS 243 Applied Music-Piano II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

**MUS 244 Applied Music-Jazz Piano II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

**MUS 245 Piano Class III (1-1) 1 Hour**

Continuation of MUS 146. More advanced keyboard techniques, use of pedals, improvisation and functional piano. Music reading of all periods. (1.1)

*Prerequisite:* MUS 146

*Course fee*

**MUS 246 Piano Class IV (1-1) 1 Hour**

Continuation of MUS 245. The highest level of advancement in piano class. Increased skills in all piano techniques. (1.1)

*Prerequisite:* MUS 245

*Course fee*

**MUS 260 Applied Music Violin II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

## Course Information and Descriptions

### **MUS 261 Applied Music Viola II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

### **MUS 263 Applied Music-String Bass II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

### **MUS 264 Applied Music-Flute II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

### **MUS 266 Applied Music-Clarinet II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

### **MUS 280 Applied Music-Saxophone II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

### **MUS 281 Applied Music-Trumpet II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

### **MUS 282 Applied Music French Horn II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

### **MUS 283 Applied Music-Trombone II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

### **MUS 286 Applied Music-Percussion II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

### **MUS 287 Applied Music-Guitar II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

### **MUS 288 Applied Music-Electric Bass II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science. (1.1)

*Course fee*

*May be taken 4 times for maximum 4 hours toward degree*

### **MUS 299 Special Topics in Music (Variable) 1-4 Hours**

This course will address the in-depth study of special topics in music which do not have specific courses in the catalog. Course content and requirements will vary depending on the topic being studied. (1.2)

*May be taken four times, but any topic only once*

## Nanoscience Technology (NAN)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

### NAN 120 Introduction to Nanoscience (3-0) 3 Hours

This course introduces students to the field of nanoscience and nanotechnology, the understanding and the capability to observe and manipulate systems at the molecular or atomic scale that is affecting all traditional sciences. It provides an introduction to the history, tools, materials, and current and emerging applications of nanotechnology.

*Note:* students may not receive credit towards a degree for both NAN 120 and NAN 121. (1.1)

*Prerequisites:* MTH 102 (C or better) or an appropriate score on the Math Placement Test or Math ACT of 22 or higher - AND - College Reading and Writing Readiness

### NAN 121 Introduction to Nanoscience with Lab (3-2) 4 Hours

This course introduces students to the field of nanoscience and nanotechnology, the understanding and the capability to observe and manipulate systems at the molecular or atomic scale that is affecting all traditional sciences. It provides an introduction to the history, tools, materials, and current and emerging applications of nanotechnology. The lab component helps reinforces the concepts and equip students with skills needed for this field.

*Note:* students may not receive credit towards a degree for both NAN 120 and NAN 121. (1.1)

*Prerequisites:* MTH 102 (C or better) or an appropriate score on the Math Placement Test or Math ACT of 22 or higher - AND - College Reading and Writing Readiness

*Course fee*

### NAN 122 Fundamentals of Nanoscience II (2-2) 3 Hours

This course covers nanoscience aspects as they relate to the fields of chemistry and physics. It emphasizes the impact of new developments in nanotechnology. Atomic structure, bonding, photonics, quantum effects, and wave/particle structure will be discussed with a focus on nanotechnology. Feasibility of implementation will be covered, as well as the development of a nanoscale understanding of properties such as color, magnetism, electrical forces, strength and rigidity. (1.2)

*Prerequisite:* NAN 121 (C or better)

*Course fee*

## Nursing (NUR)

Nursing Education, Room D208, (847) 543-2043

### NUR 110 Nurse Assisting (6-3) 7 Hours

This course prepares students for employment as nurse assistants. Depending on the setting, nurse assistants provide direct patient care; transfer and transport patients, equipment supplies and specimens, and make observations regarding patients. Duties might include giving baths and back rubs; making beds; serving meals; helping patients in and out of bed; taking temperature, pulse, respiration, weight and blood pressure measurements; answering patients' call lights; taking appropriate action in emergencies; and performing other duties as directed by the nurse. While the majority of nurse assistants work in long term care facilities, many are employed in hospitals, home care, and other care settings. Upon successful completion of this course, the student will be eligible to take the state mandated written competency examination for Nurse Assistant Certification.

*Note:* Background check and health requirement must be completed prior to enrolling in the course. (1.2)

*Prerequisite:* One of the following (or higher): TABE-10.0, APT-122, or ELI Accuplacer-285; OR ELI 103 and 104 (B or better); OR ELI 108, ELI 110, or ENG 108 (all C or better); OR College Reading and Writing Readiness AND 16 years or older

*Course fee*

### NUR 133 Foundational Concepts of Nursing Practice (5-9) 8 Hours

This course introduces the nursing process and the nursing assessment of patients and families in various clinical settings within the health care system. There is a focus on physical assessment, therapeutic communication and the role of the professional nurse. Students will learn clinical decision making and develop critical thinking skills. The course introduces pharmacology, information technology in health care and introductory nursing skills required for safe and effective patient care. The course focuses on the adult population with special emphasis on the older adult. (1.2)

*Corequisite:* BIO 245 (or BIO 124) and BIO 246 (both C or better if taken previously)

and acceptance into the Nursing program

*Course fee*

### NUR 134 Medical Surgical Nursing (4-15) 9 Hours

This course builds upon NUR 133 and focuses on assessment of acute and chronic health problems. The course focuses on critical thinking, clinical decision making, and interventions for clients with moderate to severe acute and chronic illnesses in all populations of patients with special emphasis on the older adult. It provides the opportunity to work collaboratively with the healthcare team in patient care planning. (1.2)

*Prerequisite:* NUR 133, BIO 246 and BIO 245 (all C or better)

*Corequisite:* PSY 220

*Course fee*

### NUR 232 Mental Health Nursing (2-3) 3 Hours

This course expands the use of therapeutic communication in all populations. The course also focuses on utilization of the nursing process in providing safe care to individuals with acute and chronic mental health conditions. (1.2)

*Prerequisite:* NUR 134 (C or better)

*Course fee*

## Course Information and Descriptions

### **NUR 233 Family-Centered Nursing Care (4-6) 6 Hours**

This course focuses on nursing care of the family unit and its individual members in selective phases of the human life cycle. Specific concepts of health and illness of these individuals form the basis of planning and implementing culturally diverse age appropriate nursing care. The nurse develops this care through the use of the nursing process, critical thinking, and clinical decision making. Instructional methodologies include patient-centered clinical experiences and structured classroom student-teacher interactions. (1.2)

*Prerequisite:* NUR 134 and PSY 220 (C or better)

*Course fee*

### **NUR 234 Complex Medical, Surgical, and Leadership Nursing (4-15) 9 Hours**

This course builds upon previous nursing courses and focuses on assessment of individuals with multiple and complex health problems, leadership development and transition into practice. The course includes clinical decision making and care coordination for all patients with emphasis on the older adult. The course focuses upon application of the nursing process to a group of patients, delegation, collaboration, prioritizing and leadership skills. Nursing research and incorporating evidence into nursing practice will be addressed. A primary focus will be transition to practice as a registered nurse. (1.2)

*Prerequisite:* NUR 232 and NUR 233 (C or better)

*Course fee*

## Paralegal Studies (PLS)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### **PLS 110 Introduction to Paralegal Studies (3-0) 3 Hours**

This course provides an introduction to the paralegal profession. It includes the roles and professional responsibilities of the paralegal and outlines the fields and specializations within the practice of law. It provides an overview of the functions of the legal system and an introduction to legal research, writing, ethics, and the law library. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **PLS 112 Legal Research and Writing I (3-0) 3 Hours**

This course provides an integrated introduction to legal research and writing. Students will learn to use a law library, perform legal research, analyze legal problems, and communicate research findings in the proper written format. Students will learn to locate and use both primary and secondary legal research sources, including federal and state cases, digests, statutes, regulations, treatises, encyclopedias, law reviews, citators, and practice works. Students will be introduced to computer-based legal research tools. (1.2)

*Prerequisite:* PLS 110 (C or better) OR ENG 121 or equivalent (C or better) and current enrollment in PLS 110 OR department consent.

*Typically offered fall and spring only*

### **PLS 114 Litigation (3-0) 3 Hours**

This course provides students with the knowledge and skills needed to effectively and ethically assist an attorney in litigation practice and procedure. Students will learn the principles of civil litigation in federal and state courts and will be introduced to the rules of procedure and discovery. The course addresses pre-trial practice, pretrial motions, trial preparations, basics of a civil trial, post-trial motions and appeals. The role of the paralegal during trials will also be addressed. (1.2)

*Prerequisite:* PLS 110 (C or better)

*Typically offered fall and spring only*

### **PLS 116 Contract Law (3-0) 3 Hours**

This course provides students with the knowledge and skills to define and evaluate contract law for application to specific situations. It includes an analysis of the law pertaining to contract formation, resolution of contract disputes and the impact of the Uniform Commercial Code on traditional contract theory. The course examines the types of contracts and discusses offer, acceptance and consideration. Guidelines for drafting a contract will be presented, and students will draft contracts. (1.2)

*Prerequisite:* PLS 110 (C or better)

*Typically offered spring and summer only*

### **PLS 118 Real Property Law (3-0) 3 Hours**

This course provides an introduction to Real Estate law and practice. Topics include property rights, types of land ownership, purchases and sales of real property, land use regulations, and issues in the landlord-tenant relationship. The course examines the role of the paralegal in relation to the supervising attorney and prepares the student to draft deeds, contracts, and leases. (1.2)

*Prerequisite:* PLS 110 (C or better)

*Typically offered fall and summer only*

### **PLS 210 Tort Law (3-0) 3 Hours**

This course provides an introduction to the broad area of civil wrongs and their appropriate remedies as well as tort law principles in the traditional areas of intentional torts, negligence, absolute liability, product liability, nuisance and commonly employed defenses. Students will acquire the knowledge and skills to define and evaluate tort law for application to specific situations. (1.2)

*Prerequisite:* PLS 110 (C or better)

*Typically offered fall only*

### **PLS 211 Drafting Legal Documents (3-0) 3 Hours**

This course provides an in-depth, hands on training in practical legal writing with a special focus on document preparation, transactional documents, use of form books and everyday law office writing, including the preparation, research, and drafting of pleadings, forms, and motions. This course will draw from many areas of law. (1.2)

*Prerequisite:* PLS 110 (C or better) and PLS 112 (C or better)

*Typically offered fall and spring only*

### **PLS 212 Business Law II/Corporate and Securities Law (3-0) 3 Hours**

This course provides an overview of various forms of business structures; including sole proprietorships, partnerships and corporations as well as other forms of business. Additional topics covered include the Uniform Commercial Code (UCC), leases, secured transactions and the laws administered by the Securities and Exchange Commission. The student will learn how to draft documents that are important to these fields of law.

BUS 222 and PLS 212 are cross-listed. (1.2)

*Prerequisite:* PLS 110 (C or better) or BUS 221

*Typically offered spring only*

**PLS 213 Employment and Labor Law (3-0) 3 Hours**

This course provides students with the knowledge and skills needed to effectively and ethically assist an attorney in Employment and Labor Law practice and procedure. Students will receive an overview of the legal relationship between employers and employees, including the employment at will doctrine, employment contracts, federal and state anti-discrimination laws, the labor-management relations in the union setting, along with the laws applicable to pay, benefits and the federal and state employment laws for veterans and returning service members. (1.2)

*Prerequisite:* PLS 110 (C or better)

*Typically offered fall only, even years only*

**PLS 214 Administrative Agency Law (3-0) 3 Hours**

This course presents basic concepts of administrative law and procedure in federal and state agencies, with emphasis on the paralegal role in the administrative process. Students will learn both formal and informal advocacy techniques, including representing clients before administrative bodies. Substantive topics will include administrative delegation of power, rule making, agency discretionary powers, remedies, and judicial review. Procedural topics include agency operation, adjudication, preparation for hearings, and administrative and judicial review. (1.2)

*Prerequisite:* PLS 110 (C or better)

*Typically offered spring only*

**PLS 215 Immigration Law (3-0) 3 Hours**

This course provides students with the necessary knowledge and skills to function as effective and ethical immigration paralegals. Students will learn about the immigration system - who can come to the United States, who can stay, and who must leave - including a brief history of immigration law. This course also trains paralegals to work with clients to seek specific visas, including how to gather and present information and complete documentation required for the various visas. This course introduces and explores all significant aspects of the immigration and naturalization process. (1.2)

*Prerequisite:* PLS 110 (C or better)

*Typically offered fall only*

**PLS 216 Intellectual Property Law (3-0) 3 Hours**

This course provides an overview of intellectual property law in the United States. The student will learn what is necessary to obtain a patent, a copyright, and a trademark, and what constitutes a trade secret. The student will learn to prepare applications for patent, copyright, and trademark protections with federal and state governments. The role of the paralegal in preparing for litigation involving intellectual property law will be covered. (1.2)

*Prerequisite:* PLS 110 (C or better)

*Typically offered fall only, odd years only*

**PLS 218 Bankruptcy Law (3-0) 3 Hours**

This course provides an overview of Bankruptcy law and procedures. It covers commencement of a case, preparation of schedules, operating and liquidating procedures, adversary matters and litigation in bankruptcy court, debtors' and creditors' rights and obligations, and technical terminology. Proceedings under Chapters 7, 11, and 13 of the United States Bankruptcy Code are covered. The student will learn to draft the schedules needed for Chapter 7, 11, and 13 filings. (1.2)

*Prerequisite:* PLS 110 (C or better)

*Typically offered spring only*

**PLS 230 Family Law (3-0) 3 Hours**

This course provides an introduction to fundamental common law and statutory concepts of family law with emphasis on the paralegal role in this area. Topics include formal and informal marriages, premarital agreements, separation, divorce, annulment, marital property, the parent-child relationship, child custody and support, adoption, guardianship, legal issues in alternative families, domestic relations court procedures, public records research, and the paralegal role in alternative dispute resolution/mediation processes. (1.2)

*Prerequisite:* PLS 110 (C or better)

*Typically offered spring and summer only*

**PLS 231 Health Care Law (3-0) 3 Hours**

This course will introduce paralegal students to the legal aspects of health care in the United States. It will provide a general overview of the health care system in the United States. The legal underpinnings of health care will be examined, including a review of Federal and State statutes and regulations, court decisions, and a survey of other regulating authorities including the OIG for Health and Human Services and the US Food and Drug Administration. Issues to be examined include regulation of hospitals, physicians and other health providers and suppliers; information management and access to medical records; patient rights and responsibilities; health care ethics and professional liabilities; contractual, civil and criminal liability issues in health care; consumer medical issues and patient advocacy. This course will include a practical focus on the duties and tasks of a paralegal working in this field. (1.2)

*Prerequisite:* PLS 110 and PLS 114 (both C or better)

*Recommended:* PLS 210 and PLS 214

*Typically offered fall only, even years only*

**PLS 232 Probate Law (3-0) 3 Hours**

This course provides an overview of post-mortem estate administration and the role of the probate paralegal. The course examines the entire process of administering a decedent's estate, from opening the estate and appointment of a fiduciary to filing of final account and distribution of assets. The differences between the use of a will (testate succession) to ensure the orderly transfer of a decedent's property and the failure to have a will (intestate succession) are highlighted. The student will learn how to gather information and prepare documents for testate and intestate estates. (1.2)

*Prerequisite:* PLS 110 (C or better)

*Typically offered spring only*

**PLS 233 Criminal Litigation (3-0) 3 Hours**

This course provides students with the knowledge and skills needed to effectively and ethically assist an attorney in criminal law practice and procedure. Students will learn the principles of criminal litigation, the criminal court system, and will be introduced to the rules of criminal procedure, discovery, and corrections. The course addresses pre-trial investigation and practice, pretrial motions, trial preparations, basics of a criminal trial, post-trial motions, sentencing, and appeals. The role of the paralegal during pretrial preparation for hearings and trials will also be addressed. (1.2)

*Prerequisite:* PLS 110 (C or better)

*Typically offered spring only*

**PLS 234 Elder Law (3-0) 3 Hours**

This course provides students the opportunity to explore a wide range of elder law issues from a paralegal perspective. Students will learn the paralegal role, moral, and ethical considerations involved in assisting attorneys in areas of estate planning, trusts, housing, guardianship, health care and disability law, administrative rules and regulations regarding Medicare and Social Security, elder abuse,

## Course Information and Descriptions

and age discrimination. Topics of discussion will also include guardianships, insurances, senior living facilities, and funeral planning. This course will also review elder law related forms such as Power of Attorney for Health Care and Power of Attorney for Property. Hands-on projects will be used to facilitate learning the paralegal role in this area of law. (1.2)

*Prerequisite:* PLS 110 (C or better)

*Typically offered fall only, odd years only*

### **PLS 235 Law Office Technology (3-0) 3 Hours**

This course is designed to sample computer software applications used within the law office and requires students to produce routine law office documents such as pleadings and correspondence. Students will gain practical experience with legal timekeeping and billing software, case management and docket control software, and litigation support software that includes E-filing and electronic discovery. (1.2)

*Prerequisite:* PLS 110 (C or better) AND AOS 112 or CIT 119 or CIT 120

*Course fee*

*Typically offered fall only*

### **PLS 236 Alternative Dispute Resolution (3-0) 3 Hours**

This course provides an overview of Alternative Dispute Resolution (ADR) mechanisms used in the American legal system such as negotiation, mediation, and arbitration. Students explore the various statutes, regulations and ethical standards applicable to alternative dispute resolution and learn the basic paralegal skills needed to assist attorneys who work with parties in conflict. Students will learn to apply ADR in the context of the judicial system to specific disputes in various industries and areas of practice with a focus on the specific role of the paralegal in ADR. Students will be expected to participate in various role play activities. (1.2)

*Prerequisite:* PLS 110 and PLS 114 (both C or better)

*Typically offered spring only, even years only*

### **PLS 250 Internship in Paralegal Studies (1-10) 3 Hours**

This course provides students with an opportunity to gain practical work experience under the supervision of an attorney or experienced paralegal in day-to-day, on-site law office work. The student must complete 120 hours of work at the internship site, which may be a private or public law office, corporate or government legal department, or other appropriate law-related setting. In addition to on-site work, the student will attend a one-hour/week internship seminar. (1.2)

*Prerequisites:* PLS 110 and PLS 112 and PLS 114 (all C or better) and Consent of Instructor

*Corequisite:* PLS 251

*Typically offered fall and spring only*

### **PLS 251 Paralegal Studies Capstone (3-0) 3 Hours**

This capstone course provides students with the opportunity to integrate the theoretical knowledge and practical skills they have acquired through the program and apply them in a real-world setting. Students will complete a portfolio of work samples in preparation for seeking professional employment. Students will complete a minimum of 24 hours of service learning activities in an instructor-approved setting relating to the practice of law or complete a project consistent with the goals of the course. The course will introduce national standards for paralegal core competencies and allow students to assess their knowledge and skills prior to registering for a national certification exam. (1.2)

*Prerequisite:* PLS 110, PLS 112, PLS 114 (all C or better) and completion of a minimum of two additional PLS courses.

*Typically offered fall and spring only*

### **PLS 299 Topics in Paralegal Studies (Variable) 1-3 Hours**

This course is designed to allow students to study a topic or topics that are not a part of the existing curriculum. Topics identified will be current or emerging topics within the paralegal profession or topics that provide additional depth within a legal specialty area. (1.2)

*Prerequisite:* To be determined relative to topic

*May be taken twice for credit toward degree*

## Personal Development (PDS)

Counseling Center, Room C110, (847) 543-2060

### **PDS 120 Becoming A Successful College Student (Variable) 1-2 Hours**

This course is designed to teach students attitudes and skills valuable for college success. Topics may include: goal setting, time management, memory development, note taking, textbook reading strategies, test-taking strategies, library use, college resources, motivation, and stress management.

*Note:* Involves extensive reading and homework assignments since intensive practice is required for mastery. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR Concurrent Enrollment in ENG 108 or ENG 109 or ELI 108 or ELI 109 or ELI 110 or ENG 100

### **PDS 121 Self-Empowerment (1-0) 1 Hour**

This course empowers students to become more aware of self by identifying personal strengths and values in order to resolve conflicts and set goals. Students will work in a structured setting to reinforce one another's positive attributes. With increased personal understanding, they are empowered to achieve appropriate goals.

This seminar is especially valuable for students who seek more self-confidence and motivation to live a more fulfilled life at home, at work, in college--but most of all, within themselves. This course may not be audited. (1.1)

*Prerequisite:* ELI Accuplacer score of 235 or higher, OR APT score of 80 or higher; OR ELI 103 OR ELI 104 OR ELI 108 OR ELI 109 OR ELI 110 OR College Reading and Writing Readiness

### **PDS 122 Career Exploration (1-0) 1 Hour**

This course is designed to teach students how to engage in a comprehensive career planning process. The course focuses primarily on the exploration phase of this process. Students will use various assessments to understand their interests, values, personality traits, skills and experiences as related to career identification. Students will use information about the world of work, identify and examine career clusters or job families, occupational trends, education and training requirements and job search strategies.

*Note:* Students are expected to synthesize what they have learned and develop a career plan at the end of the course. (1.1)

*Prerequisite:* ELI Accuplacer score of 235 or higher, OR APT score of 80 or higher; OR ELI 103 OR ELI 104 OR ELI 108 OR ELI 109 OR ELI 110 OR College Reading and Writing Readiness

*Course fee*

**PDS 123 Exploring Diversity and Human Relations (3-0) 3 Hours**

The course will focus on how culture and other diversity topics affect interactions with others. Through an interactive format, the course will assist students to gain an increased awareness of, and an appreciation for, the dimensions related to their own culture and to the cultures of others. Students will have the opportunity to examine and analyze the impact of prejudice, discrimination, and privilege within self and between groups. The skills necessary for promoting positive human relations in a diverse society will be explored and developed. (1.1)

*Prerequisite:* College Reading and Writing Readiness or consent of instructor

*Fulfills the CLC I/M Education Requirement.*

**PDS 124 Transition to College (1-0) 1 Hour**

This course is designed to assist new students with their transition into college. Topics may include: college academic policies, college vocabulary, student and faculty expectations/roles, college organization/layout, college resources, use of educational technology, diversity, involvement in college activities/organizations, educational planning, and assessment of study skills. (1.1)

*Prerequisite:* Score on ELI Accuplacer-235 or higher OR APT-80 or higher OR ELI 103 OR ELI 104 OR ELI 108 OR ELI 109 OR ELI 110 OR College Reading and Writing Readiness

*Corequisite:* Enrollment in one other CLC course

**PHI 125 Introduction to Ethics (3-0) 3 Hours**

In this course, students critically evaluate general moral theories, fundamental moral concepts, and contemporary moral issues such as animal rights and the environment, reproductive technology and abortion, euthanasia and assisted suicide, poverty and famine relief, war and peace, racism, sexism, and other injustices. Students work to develop and defend their own views on these matters, and to understand and evaluate others' views, by studying and applying moral theories such as virtue ethics, utilitarianism, deontology, and ethics of care. Throughout the course, students learn about moral concepts such as sound reasoning, autonomy, impartiality, utility, rights, responsibility, and justice. Specific attention is given to moral issues relevant to and philosophical contributions made by members of traditionally underrepresented groups. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: H4 904**

**PHI 126 World Religions (3-0) 3 Hours**

This course introduces students to the teachings, rituals, symbols, and cultures of living world religions. Religions such as Hinduism, Buddhism, Confucianism, Taoism, Shintoism, Judaism, Christianity, Islam, and the religions of Africa may be included. This course will help to broaden the student's understanding and appreciation of these belief systems. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: H5 904N**

## Philosophy (PHI)

Communication Arts, Humanities and Fine Arts  
Division, Room B213, (847) 543-2040

**PHI 121 Introduction to Philosophy (3-0) 3 Hours**

This course discusses the ideas of major philosophers concerning questions of human knowledge, logic, moral values, political and social philosophy, and religious beliefs. Attempts are made to get students to think out their own answers to these questions. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: H4 900**

**PHI 122 Logic (3-0) 3 Hours**

This course develops formal reasoning, including categorical and symbolic modes of analysis. It covers Venn diagrams, predicate logic, rules of inference and replacement. It introduces the inductive method and the problem of induction. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

**IAI: H4 906**

**PHI 123 Philosophy of Religion (3-0) 3 Hours**

This course is a study of selected religious concepts, theories, and arguments. Topics may include the existence of God, conceptions of divinity, characterizations of the divine/human relationship, religious pluralism, the nature of good and evil, faith and reason, religion and morality, miracles, the afterlife, and the nature of religious experience. While not a survey of world religions, emphasis is given to engaging and evaluating ideas from a diverse range of thinkers of various religious and non-religious traditions. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: H4 905**

**PHI 128 Introduction to Social and Political Philosophy (3-0) 3 Hours**

This course introduces students to social and political philosophies. Students will discuss and critically evaluate major social and political theories on justice, equality, liberty, law, order, rights, and duties. Contract theory, classic liberalism, Marxism, anarchism, cosmopolitanism, and virtue theory will also be covered. Students will learn to apply these theories practically to contemporary issues such as war and peace, human rights, racism, sexism, classism, gay rights, worker rights and global trade, immigration, education, free speech, prison, and political participation. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**PHI 129 Philosophy of Gender (3-0) 3 Hours**

*Course modification effective Fall 2017. For details, refer to addendum.*

This course provides an introduction to the influential philosophers who have addressed gender in their philosophical theories. The course explores issues such as the definition of sexism, gender essentialism and non-essentialism, gender and ethics, gender and epistemology, gender and post-modernism, gender and culture, and philosophical issues surrounding marriage the family and personal relationships. Both classical and contemporary philosophers will be studied, in addition, both male and female writers will be read on the topics. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**PHI 221 Asian Philosophy (3-0) 3 Hours**

This course introduces students to the influential ideas and thinkers of India, China, and Japan. Students will cover a wide range of philosophical theories regarding the self, reality, knowledge, and aesthetics. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: H4 903N**

## Course Information and Descriptions

### **PHI 299 Special Topics in Philosophy (Variable) 1-3 Hours**

This course will address the in-depth study of special topics in Philosophy which do not have specific courses in the catalogue. Course content and requirements will vary depending on the topic being studied. (1.1)

*May be taken four times for credit toward degree*

## Phlebotomy Technician (PBT)

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

### **PBT 110 Introduction to Medical Lab Technology (1-2) 2 Hours**

This course introduces students interested in phlebotomy to the roles of the medical laboratory personnel in the health care system. Topics include professionalism, communication, basic laboratory math, medical ethics, CLIA-waived testing, legal implications of laboratory testing, and educational preparation and certification of laboratory personnel. (1.2)

*Prerequisite:* High school diploma or GED; College Reading and Writing Readiness; Basic Algebra Readiness; and attended a Phlebotomy Program Information Session (within 2 years)

*Course fee*

### **PBT 115 Phlebotomy Techniques (1-2) 2 Hours**

This course focuses on the development of skills in performing phlebotomy procedures. Topics include proper use of equipment, current safety standards, medical and legal policies and regulations, interpersonal and communication skills, and correct specimen collection, transport, and preparation for laboratory testing. (1.2)

*Prerequisite:* PBT 110 (C or better), and attendance of Phlebotomy Information Session (within 2 years).

*Course fee*

### **PBT 116 Clinical Phlebotomy (0-7) 2 Hours**

This course provides the student with supervised clinical practice of current phlebotomy techniques. Students will develop skill in performing phlebotomy procedures in various health care settings. Includes proper use of equipment, current safety standards, medical and legal policies and regulations, interpersonal skills, and correct transport, collection, and preparation for laboratory testing. (1.2)

*Prerequisite:* PBT 110, PBT 115 (both with C or better), and attendance of Phlebotomy Information Session (within 2 years).

*Course fee*

## Physical Education (PED)

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

### **PED 121 Individual Activities (0-2) 1 Hour**

This course provides instruction and participation in one of numerous athletic, fitness, and wellness activities. Choices may include Total Fitness, Strength Training, Aikido, Hapkido, Tai Chi, and various group exercise classes. Consult the class schedule for sports offered during a particular semester.

*Note:* No more than four credit hours earned in PED 121 and/or PED 127 counts toward an associate degree. Enrollment attempts beyond this limit will result in an error message indicating non-enrollment. See Center for Personal Enrichment for non-credit classes. (1.1)

*Prerequisite:* ELI Accuplacer score of 235 or higher OR APT score of 80 or higher OR ELI 103 (C or better) OR ELI 104 (C or better) OR ELI 110 OR College Reading and Writing Readiness

*Course fee*

*May be taken four times for credit toward degree*

### **PED 123 Team Sports I (Variable) 0.5-1 Hour**

Group instruction in a variety of team sports, including techniques of play, strategy, and rules. Provides group instruction and experience in a variety of team sports. Emphasis on participation. Sports offered include basketball, volleyball, softball, and baseball.

See class schedule for sports offered during a particular semester. (1.1)

*Note:* No more than 1 cr hr earned in PED 123 will count towards an associate degree. Enrollment attempts beyond this limit will result in an error message indicating non-enrollment. See Center for Personal Enrichment for non-credit classes.

*May be taken twice for credit toward degree*

### **PED 128 Introduction to Recreation (3-0) 3 Hours**

This course is designed to introduce the student to the historical and philosophical aspects of recreation and the factors that influence use of leisure time. The nature, scope, and importance of recreational activities in a school and community setting are covered along with program development for the various age groups.

*Note:* Students will spend lab time in local park districts during the second half of the semester. (1.1)

*Prerequisite:* College Reading and Writing Readiness

### **PED 160 Yoga I (0-2) 1 Hour**

This activity course introduces students to the art and science of yoga. Emphasis is placed on basic yoga postures (asanas) and accompanying breathing techniques commonly found in Hatha Yoga and other styles. Students will experience many benefits including enhanced muscle tone, flexibility, and relaxation for the body and mind.

HWP 160 and PED 160 are cross-listed. (1.1)

**PED 220 Physical Education in the Elementary School (2-2) 3 Hours**

Designed specifically for classroom teachers, teacher aides, and elementary physical education majors. Curriculum, materials, and progression of activities in elementary school physical education is discussed, demonstrated, and practiced.

*Note:* Students will spend lab time in local elementary schools during the second half of the semester. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**PED 221 Introduction to Physical Education (3-0) 3 Hours**

This course is an introduction to the professional field of physical education. An understanding of the role of physical education in the total education program. A study of the objectives of physical education with emphasis on physical fitness and social development. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**PED 228 First Aid/CPR (2-0) 2 Hours**

This course is designed to prepare citizen responders with the knowledge and skills necessary to respond to emergency and first-aid situations. First aid, CPR, and AED for adults, children, and infants are included in this course. Students will be eligible to take national certification exams upon successful completion of each respective content area. (1.1)

*Prerequisite:* ELI Accuplacer score of 235 or higher OR APT score of 80 or higher OR ELI 103 (C or better) OR ELI 104 (C or better) OR ELI 110 OR College Reading and Writing Readiness

*Course fee*

**PED 229 Experience in the Out-of-Doors (Variable) 1-3 Hours**

Extends the classroom into the out-of-doors. Outdoor experiences are provided in a variety of natural areas through field trips. Instructional emphasis is placed on how to move through these areas with minimum environmental impact and how to live within them through various outdoor activities such as camping and hiking.

*Note:* No more than 3 credit hours may count toward an associate degree. (1.1)

*Course fee*

*May be taken twice, but any topic only once*

**PED 242 Philosophy of Coaching (Variable) 0.5-3 Hours**

This course is a study of the essential elements of coaching men and women and boys and girls. It emphasizes the development and analysis of various coaching styles and philosophies, development of individual and team objectives, methods of coaching organization, and various motivational techniques. As such, the course will serve to prepare the student for all aspects of coaching aside from the technical aspects of the particular sport. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Course fee*

*May be taken four times, but any topic only once*

**PED 243 Theory and Practice of Fitness (1-2) 2 Hours**

This course introduces students to basic scientific and applied concepts of fitness as well as provides regularly scheduled opportunities to develop their health and functional fitness capacities. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**PED 270 Biomechanics and Kinesiology (3-0) 3 Hours**

This course will introduce students to the science of musculoskeletal human movement. Fundamental biomechanical principles and functional movement capabilities of each major joint will be examined. (1.2)

*Prerequisite:* College Reading and Writing Readiness

**PED 271 Exercise Physiology (3-0) 3 Hours**

*Course modification effective Spring 2018. For details, refer to addendum.*

This course will explore the study of human function as it relates to responses and adaptations resulting from physical activity and exercise. Systemic interactions and cellular changes during and after activity will be examined. (1.2)

*Prerequisite:* College Reading and Writing Readiness

**PED 272 Exercise Testing and Prescription (3-0) 3 Hours**

This course will prepare students to screen, stratify risk, and assess health-related physical fitness. Principles of effective and meaningful exercise program design will also be explored. (1.2)

*Prerequisite:* PED 270 and PED 271 (both C or better)

## Physics (PHY)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

**PHY 120 Practical Aspects of Physics (3-2) 4 Hours**

This is a one semester lecture-discussion course supplemented with demonstrations and laboratory designed primarily for non-science students. It stresses some fundamental concepts in physics as applied to everyday situations. A verbal rather than a mathematical approach will be emphasized. (1.1)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

*Course fee*

*Typically offered fall and spring only*

**IAI: P1 901L**

**PHY 121 General Physics I (4-2) 5 Hours**

This is the first course in a two semester sequence designed for students in arts and sciences. Basic concepts of mechanics, waves and sound are developed through lectures, demonstrations and laboratory experience. Basic knowledge of algebra and geometry assumed. (1.1)

*Prerequisites:* MTH 108 or MTH 107 (both C or better) or an appropriate score on the Math Placement Test or two years of High School Algebra or concurrent enrollment in MTH 117 - AND - College Reading and Writing Readiness

*Course fee*

**IAI: P1 900L**

**PHY 122 General Physics II (4-2) 5 Hours**

This is the second course in a two semester sequence. Basic concepts of heat, thermodynamics, electricity, magnetism, optics and modern physics are developed. (1.1)

*Prerequisite:* PHY 121

*Course fee*

## Course Information and Descriptions

### **PHY 123 Physics for Science and Engineering I (4-2) 5 Hours**

This is the first course in a three semester sequence designed for students in engineering, physics, mathematics and chemistry. Fundamental concepts of mechanics are developed through lecture, demonstration and laboratory experience.

*Note:* MTH 146 is strongly recommended as a corequisite for this course and is a prerequisite for PHY 124 if you are planning to enroll in Physics for Science and Engineering II. (1.1)

*Prerequisite:* MTH 145

*Course fee*

**IAI: P2 900L**

### **PHY 124 Physics for Science and Engineering II (4-2) 5 Hours**

This is the second course in a three semester sequence. Fundamental concepts of heat, electricity, and magnetism are developed. (1.1)

*Prerequisite:* PHY 123 and MTH 146

*Course fee*

### **PHY 221 Physics for Science**

#### **and Engineering III (3-2)**

**4 Hours**

This is the third course in a three semester sequence. Fundamental concepts of waves, sound, optics, and modern physics will be developed. (1.1)

*Prerequisite:* PHY 124

*Course fee*

*Typically offered summer only*

## Political Science (PSC)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### **PSC 121 American National Politics (3-0) 3 Hours**

This course is an introductory survey of American politics designed to help students better understand the U.S. political system. The focus of the course is on the system's key political actors, behaviors, processes and institutions. Empirically based explanations are offered to help students understand why these political factors are important to the system's operation, and what effect they have on both the electoral and policy making processes and their outcomes. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: S5 900**

### **PSC 122 State and Local Politics (3-0) 3 Hours**

This course introduces students to state and local politics in the United States. It is designed to help students better understand the political institutions and processes of subnational governments. The course adopts a comparative political systems approach that focuses on the variation found among state and local governments. The purpose of the course is to understand why these differences exist, and what effect they have on both the electoral and policy making processes and their outcomes. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: S5 902**

### **PSC 221 Comparative Political Systems (3-0) 3 Hours**

This course is a comparative study of national political systems found across the globe. Its primary focus is describing and explaining the conditions necessary and sufficient for a democracy. A three part classification scheme--Developed Democracies, Developing Democracies and Non-Democracies--is used to analyze the similarities and differences found both within and across the different political systems. A select group of countries from different regions in the world are studied to illustrate political, economic and social development as it relates to regime type. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: S5 905**

### **PSC 222 International Relations (3-0) 3 Hours**

This course is a survey of world politics designed to better understand current political issues and events at the international or global level. The course uses a multiple perspective analysis approach emphasizing the different levels of analysis and paradigms relevant to international politics. While introducing students to the traditional security concerns of states, it also seeks to emphasize the growing importance of nonstate actors and nonsecurity issues in global politics. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Fulfills the CLC I/M Education Requirement.*

**IAI: S5 904**

### **PSC 223 Political Campaigns and Elections (3-0) 3 Hours**

This course covers the historical development and modern strategies of political parties and interest groups in campaigns and elections. Attention is given to an analysis of current elections at the national, state, and local levels. (1.1)

*Prerequisite:* College Reading and Writing Readiness

## Psychiatric Rehabilitation (PRS)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### **PRS 111 Survey of Psychiatric Rehabilitation (3-0) 3 Hours**

The course provides an overview of psychiatric disability and rehabilitation approaches to psychiatric treatment. Topics include: the State of Illinois mental health system and related services; case management, dual diagnosis of substance abuse/psychiatric disabilities; public policy issues and family/community support systems. (1.2)

*Prerequisite:* College Reading and Writing Readiness

### **PRS 112 Psychiatric Rehabilitation Skills (3-0) 3 Hours**

This course focuses on skills needed for serving individuals with severe mental illness. Components included are: interviewing and listening skills; step process for teaching skills; behavior modification principles; aggression management; client assessment and treatment planning; and crisis intervention techniques. (1.2)

*Prerequisite:* PRS 111

**PRS 113 Health Skills for Psychiatric Rehabilitation (3-0) 3 Hours**

This course examines three dimensions of wellness: physical wellness, emotional wellness, and environmental wellness. Other dimensions may be included. A multidimensional model is utilized based on the illness/wellness continuum. The focus is on skill development in self-responsibility to improve the quality of life and well being for those with severe mental illness. (1.2)

*Prerequisite:* PRS 111

**PRS 114 Vocational and Community Living Skills (3-0) 3 Hours**

This course focuses on development of skills needed for working with community, state, and federal agencies that serve people with severe mental illness. Mediation, negotiation, job coaching, and job analysis skills are included. Practical applications of the Americans with Disabilities Act are explored. Community living skills will include the process of networking and benefits programs available at the local, state, and federal level. (1.2)

*Prerequisite:* PRS 111

## Psychology (PSY)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

**PSY 121 Introduction to Psychology (3-0) 3 Hours**

This course presents the basic concepts and theoretical perspectives for understanding psychology. The course encompasses factors affecting human behavior and mental processes and includes, but is not limited to, the history of psychology, research methodology, the brain and behavior, learning, memory, cognition, language, intelligence, development, personality, abnormal psychology, therapy and social psychology. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

*Note:* For online sections, College Reading and Writing Readiness is required

**IAI: S6 900**

**PSY 122 Industrial/Organizational Psychology (3-0) 3 Hours**

This course provides an overview of Industrial/Organizational (I/O) Psychology, which is the application of psychological research and theory to explain human interactions with others at work. Individual, group, and organizational issues focused on the work environment are explored. Areas covered include personnel selection, performance management, motivation, job satisfaction, leadership, supervisory practices, and research on the work, worker and workplace. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**PSY 220 Lifespan Development (3-0) 3 Hours**

*Course modification effective Fall 2017. For details, refer to addendum.*

The course integrates theory and research as they relate to neurobiological, cognitive, social and emotional development of individuals in cultural context from conception throughout adulthood. The course emphasizes normal developmental stages and patterns of adjustment to differing life-time demands. Students will gain an understanding of hereditary and environmental factors on development; prenatal development and the birth process; physical development; language and cognitive development; family relationships; friend and peer relations; school, college, and career experiences; self-identity; gender; sexuality and health and the aging process, as well as the research methods psychologists use to study development. (1.1)

*Prerequisite:* PSY 121 (C or better)

**IAI: S6 902**

**PSY 222 Child Growth and Development (3-0) 3 Hours**

This course is designed to familiarize students with the physical, cognitive, and socioemotional development of the child from conception through adolescence in cultural context. Topics of discussion include genes and heredity; prenatal development and birth; brain development; motor, sensory, and perceptual development; cognitive and memory changes; intelligence and language development; development of the self and identity; attachment and social relationships; and moral development. Emphasis is placed on the interrelationships among the physical, cognitive, social, and emotional domains and the mutual influences of these domains on development. Several theories of child development and methods of studying development are introduced. (1.1)

*Prerequisite:* PSY 121 (C or better)

**IAI: S6 903**

**PSY 223 Abnormal Psychology (3-0) 3 Hours**

This course provides a systematic presentation of the concepts related to psychological disorders with specific emphasis given to diagnostic criteria, as described in the Diagnostic and Statistical Manual of Mental Disorders, theoretical perspectives, etiology, and treatment. (1.1)

*Prerequisite:* PSY 121 (C or better)

**IAI: PSY 905**

**PSY 224 Theories of Personality (3-0) 3 Hours**

This course is designed to present the student with a survey of the major theories of personality. Theorists will be studied according to the following categories: 1) psychoanalytic; 2) humanistic and existential; 3) biological; 4) trait; 5) behavioral; 6) cognitive. Emerging perspectives will also be addressed. Several case studies will be presented for analysis. (1.1)

*Prerequisite:* PSY 121 (C or better)

**PSY 225 Social Psychology (3-0) 3 Hours**

This course provides an introduction to the scientific study of individuals thinking, feeling, and behavior within their social environments. This course includes, but is not limited to: research methods, attitude formation and change, social cognition, interpersonal relations, group processes, and social influence. (1.1)

*Prerequisite:* PSY 121 (C or better)

**IAI: S8 900**

## Course Information and Descriptions

### **PSY 226 Adolescent Development (3-0) 3 Hours**

This course integrates theory and research as they relate to neurobiological, cognitive, and social-emotional development of adolescents in cultural context. Students will gain an understanding of evolving interpersonal and societal roles; family relationships; friend and peer relations; school, media, and career experiences; identity; gender and sexuality; psychological and social problems; and the research methods psychologists use to study development. (1.1)

*Prerequisite:* PSY 121 (C or better)

**IAI: S6 904**

### **PSY 228 Human Sexuality (3-0) 3 Hours**

This course provides an examination of the current knowledge and attitudes of the behavioral aspects of human sexuality with particular emphasis on personal, interpersonal, community, and societal influences on sexuality. Topics of interest include sexuality throughout the lifespan, sexual anatomy and physiology, gender roles and gender identity, contraception, pregnancy, birth, lifestyles, love and intimacy, abortion, sexual orientation, sexually transmitted diseases, dysfunction, power/coercion, and sale of sex.

PSY 228 and SWK 228 are cross-listed. (1.1)

*Prerequisite:* PSY 121 (C or better)

### **PSY 229 Psychology of Women (3-0) 3 Hours**

This course will examine the psychological perspective on women and femininity. Using classic and contemporary research from all areas of psychology, the course will explore the major concepts, theories, and research methods as they relate to women and gender development. Included is a cross-cultural discussion of the cognitive, physical, and social factors unique to women across the lifespan. (1.1)

*Prerequisite:* PSY 121 (C or better)

*Fulfills the CLC I/M Education Requirement.*

### **PSY 240 Brain and Behavior (3-0) 3 Hours**

This course examines the relationship between the brain and behavior by explaining the structure and function of the nervous system. Additional topics include, but are not limited to, the brain's role in learning, sensing, perceiving, communicating, sleeping, eating, emotions, sexual behavior, neurological disorders, traumatic injuries, mental disorders, and the research techniques used to study the brain. (1.1)

*Prerequisite:* PSY 121 (C or better)

### **PSY 248 Psychology of the Criminal Mind (3-0) 3 Hours**

This course exposes the student to the field of Criminal Psychology. The purpose of this course is to develop an understanding as to the origins of criminal behavior and the clinical and social implications of violent crime. The course will examine the etiology, nature, assessment, and behavior of individuals who commit crime with an emphasis on violent crimes. Included in this examination will be the role of the family and other social factors, media violence, and genetics. The basic rules of crime scene analysis and processing will also be discussed.

CRJ 248 and PSY 248 are cross-listed. (1.1)

*Prerequisite:* PSY 121 C or better,

*Recommended:* CRJ 219

### **PSY 299 Special Topics in Psychology (Variable) 1-3 Hours**

This course addresses the in-depth study of special topics in psychology that do not have specific courses in the catalogue. Course content will vary depending on the topic being studied, but could include Research Methods, Writing in Psychology, Domestic Violence, the Brain and Behavior, or Cultural Diversity. This course is repeatable up to three times for a maximum of 6 hours towards degree completion. (1.1)

*May be taken four times for credit toward degree*

## Retail Management (RMC)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

### **RMC 111 Human Relations in Business (3-0) 3 Hours**

*Approved by ICCB (effective Fall 2017)*

This course introduces the human and organizational factors that influence the workplace. Topics will include teamwork, morale, personal efficiency, leadership, personality, and communication in a diverse and changing business environment. (1.2)

### **RMC 112 Computer Basics/Software Applications (3-0) 3 Hours**

*Approved by ICCB (effective Fall 2017)*

This course provides a comprehensive study of the use of computers and technologies. Class topics include computer hardware, software, operating systems, and electronic communications such as email, the Internet, and networks. Students will have an opportunity to analyze computer-purchasing strategies, as well as acquire knowledge on data security and storage. Hands-on software experience will be provided utilizing Word, Excel, Access, PowerPoint, the Internet, and email.

RMC 112 and AOS 112 are cross-listed. (1.2)

### **RMC 113 Human Resource Management (3-0) 3 Hours**

*Approved by ICCB (effective Fall 2017)*

This course provides a broad overview of relevant human resource management concepts, incorporating legal and ethical issues. Topics include staffing, hiring, training and development, performance evaluation, employee terminations, compensation and benefits, union versus non-union workforces, and workforce diversity issues.

RMC 113 and BUS 113 are cross-listed. (1.2)

**RMC 115 Elements of Supervision (3-0) 3 Hours***Approved by ICCB (effective Fall 2017)*

This course introduces the role of the supervisor and how it fits in the overall management of an organization. Emphasis is on how the supervisor can impact a department's productivity. Topics will include: supervisory planning, time management, organizing and delegating tasks, training and coaching employees, Equal Employment Opportunity guidelines, labor relations, managing conflict and stress in the work environment, creating a safe and healthy work environment, and productivity improvement. RMC 115 and BUS 115 are cross-listed. (1.2)

**RMC 117 Introduction to Marketing Concepts (3-0) 3 Hours***Approved by ICCB (effective Fall 2017)*

This course will teach the core concepts of marketing, focusing on strategies of product, price, place and promotion. It will highlight the importance of marketing in all sizes of businesses and organizations. Key topics include market research, brand strategy, pricing, distribution, retailing specific decisions and integrated marketing communications. (1.2)

**RMC 119 Introduction to Financial Concepts (3-0) 3 Hours***Approved by ICCB (effective Fall 2017)*

This course introduces students to financial concepts used in running a business. Topics include financial calculations, the budgeting process, and understanding financial statements. (1.2)

**RMC 234 Principles of Retailing (3-0) 3 Hours***Approved by ICCB (effective Fall 2017)*

This course is focused on the world of retailing from a managerial viewpoint. Students will explore the different types of retailers, multichannel retailing, consumer buying behavior, retail marketing strategies, selecting retail site locations, supply chain management, effective merchandising, pricing, store layout/design, store management and customer service. The course is intended to meet the needs of those now working in a retail environment and those wishing to learn more about how retail businesses operate. RMC 234 and BUS 234 are cross-listed. (1.2)

*Prerequisite:* BUS 121 or six hours of RMC coursework**RMC 237 Managerial Communication (3-0) 3 Hours***Approved by ICCB (effective Fall 2017)*

This course will guide students in developing the communication skills needed to be successful as a manager. The course is organized in a workshop format, in which students develop, refine, and practice communication skills used by successful managers. The course includes a focus on both oral and written skills used in business at a management level. The content of the course will also include a focus on organization, non-verbal (both delivery and listening) and presentation skills. At the conclusion of the course, students will be able to prepare written business documents such as proposals, memos, and emails; organize and conduct meetings and write meeting minutes; and make formal and informal business presentations. Students will have developed communication skills that effectively inform and persuade their audience in addition to enhancing their credibility as managers.

RMC 237, AOS 237 and BUS 237 are cross-listed. (1.2)

**Russian (RUS)**

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

**RUS 121 Beginning Russian I (4-0) 4 Hours**

This course will develop basic skills in pronunciation, vocabulary, grammar, reading, listening comprehension, and oral and written communication within the context of the Russian culture. (1.1)

**RUS 122 Beginning Russian II (4-0) 4 Hours**

This course continues to develop the basic skills introduced in RUS 121: pronunciation, vocabulary, grammar, reading, listening comprehension, and oral and written communication within the context of Russian culture. (1.1)

*Prerequisite:* RUS 121**RUS 221 Intermediate Russian I (4-0) 4 Hours**

This course continues to develop the basic skills introduced in RUS 121 and 122. The course is a general review and expansion of beginning grammar, conversation, vocabulary development, readings and writing exercises which focus on life in the former U.S.S.R. (1.1)

*Prerequisite:* RUS 122**RUS 222 Intermediate Russian II (4-0) 4 Hours**

This course reviews and expands the use of Russian grammar by introducing more advanced structures into verbal and written communication. Films, material from newspapers and magazines, and from other media will enable students to use authentic materials that are culturally relevant to explore further the Russian speaking-world and its culture. (1.1)

*Prerequisite:* RUS 221*Fulfills the CLC I/M Education Requirement.***IAI: H1 900****Science Electives (SCI)**

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

**SCI 120 Success in College Science Courses (2-2) 3 Hours**

This course introduces students to science knowledge and skills necessary to allow for a seamless transition into discipline-specific science courses. This course is not meant to be a general education science course, but rather will prepare students to be more successful in future science lab courses. This course will count as a general elective and will not fulfill the general education science course requirement towards a degree or certificate. (1.1)

*Prerequisite:* College Reading and Writing Readiness or concurrent enrollment in ENG 109 or ELI 109 or ELI 110 AND Basic Algebra Readiness

## Course Information and Descriptions

### Sign Language (SGN)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

#### **SGN 121 American Sign Language I (4-0) 4 Hours**

This course introduces students to a unique visual-gestural language by emphasizing recognition and production of American Sign Language signs with accurate non-manual behaviors. It focuses on developing conversational fluency by using major language functions such as introducing oneself, exchanging information, and talking about families, activities, and occupations. (1.2)

*Prerequisite:* College Reading and Writing Readiness

#### **SGN 122 American Sign Language II (4-0) 4 Hours**

This course is a continuation of SGN 121-American Sign Language I and focuses on the progression and fluency of conversational American Sign Language. Emphasis is on expanding vocabulary, fingerspelling, grammatical structures, and honing receptive and expressive skills. It introduces the importance and accurate use of classifiers and continues to concentrate on major language functions including telling locations, making suggestions and requests, and exchanging information. (1.2)

*Prerequisite:* SGN 121 with a grade of C or better

### Social Studies Topics (SST)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

#### **SST 299 Special Topics in Social Sciences (3-0) 3 Hours**

This course addresses the in-depth study of special topics in the social or behavioral sciences (anthropology, education, economics, history, political science, psychology, and sociology). Course content will vary depending on the topic being studied. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*May be taken twice for credit toward degree*

### Social Work (SWK)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

#### **SWK 121 Introduction to Social Work (3-0) 3 Hours**

This course provides an introduction to the knowledge, skills, and values necessary for generalist social work in contemporary society. Social welfare services, policies, and their historical origins will be presented along with the unique experiences of diverse and at-risk populations affected by various social problems. It provides an overview of the range of public and private social services available for meeting these problems. (1.1)

*Prerequisite:* College Reading and Writing Readiness

#### **SWK 228 Human Sexuality (3-0) 3 Hours**

This course provides an examination of the current knowledge and attitudes of the behavioral aspects of human sexuality with particular emphasis on personal, interpersonal, community, and societal influences on sexuality. Topics of interest include sexuality throughout the lifespan, sexual anatomy and physiology, gender roles and gender identity, contraception, pregnancy, birth, lifestyles, love and intimacy, abortion, sexual orientation, sexually transmitted diseases, dysfunction, power/coercion, and sale of sex.

PSY 228 and SWK 228 are cross-listed. (1.1)

*Prerequisite:* PSY 121 (C or better)

### Sociology (SOC)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

#### **SOC 121 Introduction to Sociology (3-0) 3 Hours**

This course is an introductory analysis and description of structure and dynamics of human behavior in our society. Students will apply the scientific method to the observation and conceptualization of social roles, status, and culture. Processes in socialization, intergroup and collective behavior, and specific analysis of major institutions and social changes are considered. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**IAI: S7 900**

#### **SOC 222 Social Problems (3-0) 3 Hours**

This course introduces students to sociological perspectives on contemporary social problems. It examines competing definitions of social problems and conceptualizations of how social problems develop over time. The major research methods and theoretical traditions sociologists use to study social problems are presented. The course also analyzes research about contemporary social problems and evaluates social policies aimed at combating these problems. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* SOC 121

**IAI: S7 901**

#### **SOC 223 Deviance (3-0) 3 Hours**

This course examines the sociological study of the origins, causes, and control of deviance and deviant behavior. It also considers deviance as a labeling process. Course emphasis is placed on individual and group deviance, resulting from societal norms and values. Some areas to be covered are: drug use, sexual deviance, criminal behavior, marginal deviance, and career deviance. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* SOC 121

**SOC 224 Sociology of the Family (3-0) 3 Hours**

This course provides an understanding of sociological concepts, theories, and research methods in relation to marriage and family issues. It explores the influence of contemporary society on family life and offers a historical analysis on how marriages and families have changed over time. The course also introduces students to a cross-cultural comparison of marriages and families throughout the world and diverse family forms. Special emphasis is placed on topics concerning home life such as: balancing work and family, parent and child relationships, dating, marriage and divorce. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* SOC 121

**IAI: S7 902**

**SOC 225 Class, Race, and Gender (3-0) 3 Hours**

This course uses various sociological perspectives to examine how class, race, and gender structure individual and group access to power, resources, opportunities, and prestige. It examines how these socially constructed categories provide identity and meaning that shape social interaction and institutional structure and practice. Classical and contemporary theoretical and empirical models demonstrate how the intersection of these major dimensions of inequality represent a source of opportunity and privilege, while simultaneously contributing to the reproduction of social inequality. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* SOC 121

*Fulfills the CLC I/M Education Requirement.*

**IAI: S7 903D**

**SOC 229 Sex, Gender, and Power (3-0) 3 Hours**

This course will examine the major sociological concepts, theories, and research methods in relation to gender issues. It will explore the development of gender roles cross-culturally, as well as the consequences of dividing society along gender lines. Topics for discussion may include: gender role socialization, cross-cultural definitions of gender, underrepresentation on the basis of gender, gender differences in communication, gender issues in relation to the family, workplace, and schools, media images of men and women, and gender-based violence.

GXS 229 and SOC 229 are cross-listed. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* SOC 121

*Fulfills the CLC I/M Education Requirement.*

**IAI: S7 904D**

**SOC 299 Special Topics in Sociology (Variable) 1-3 Hours**

This course addresses the in-depth study of special topics in sociology that do not have specific courses in the catalogue. Course content will vary depending on the topic being studied and may include topics in global inequity, race and gender, education, environment, and social change. This course may be taken up to four times for a maximum of 6 hours towards degree completion. (1.1)

*May be taken four times, but any topic only once*

## Spanish (SPA)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

**SPA 121 Beginning Conversational Spanish I (4-0) 4 Hours**

This course introduces the fundamentals of language necessary for understanding, speaking, reading, and writing of Spanish. It will include practice in pronunciation from dialogues and pattern practices. This is the college level course. (1.1)

**SPA 122 Beginning Conversational Spanish II (4-0) 4 Hours**

This course is a continuation of SPA 121. Emphasis will be placed on the development of oral comprehension and conversational ability. Instruction in the appreciation of the Spanish culture will be an integral part of the regular class activities. (1.1)

*Prerequisite:* SPA 121 or Instructor Consent

**SPA 123 Spanish for Spanish Speakers (3-0) 3 Hours**

The goal of this course is to enhance the student's knowledge of his/her native language. This course is designed for those students who speak Spanish at home but have not had any or little formal education in the Spanish language. The course will be taught completely in Spanish and will replace SPA 121 or SPA122 for native and near native Spanish speakers. Attention also will be given to conventions of orthography. (1.1)

*Prerequisite:* Native or near-native Spanish speaking ability

**SPA 221 Intermediate Spanish I (4-0) 4 Hours**

This course covers the continued development of oral comprehension and accurate control of sound system and syntax. It includes selected examples of cultural and contemporary writing to elicit an awareness of the similarities and differences of each culture (English-Spanish) and a fuller understanding of the value systems of the Hispanic societies. (1.1)

*Prerequisite:* SPA 122

**SPA 222 Intermediate Spanish II (4-0) 4 Hours**

This course continues to expand the knowledge of Spanish grammar, with emphasis in verbal and written communication. Films, short videos, readings and materials from newspapers, magazines, and media are utilized so students explore the Spanish speaking world and cultures based on authentic materials. (1.1)

*Prerequisite:* SPA 221

*Fulfills the CLC I/M Education Requirement.*

**IAI: H1 900**

## Course Information and Descriptions

### **SPA 223 Spanish Civilization I (3-0) 3 Hours**

This course is designed to give the advanced student of Spanish the opportunity to increase his/her proficiency in the Spanish language, and to explore the Spanish speaking culture. A selection of readings from literary works, newspapers, magazines, and articles along with films, short videos, and music will provide the writing and conversational material needed to expand the student's knowledge of the culture and civilization of the Hispanic world. (1.1)

*Prerequisite:* SPA 222

*Fulfills the CLC I/M Education Requirement.*

**IAI: H1 900**

### **SPA 224 Spanish Civilization II (3-0) 3 Hours**

This course is the continuance of Spanish Civilization I. Students will continue to gain cultural enrichment through lively discussions, readings, and writing about the Hispanic world. This course will incorporate a broad variety of materials such as literary works, films, interviews, articles, and media in order to provide the students the opportunity to practice the Spanish language. Topics will be different from Spanish Civilization I. (1.1)

*Prerequisite:* SPA 223

*Fulfills the CLC I/M Education Requirement.*

**IAI: H1 900**

## Spanish Adult Education (SAE)

### Adult Basic Education, GED® and ESL Division Building 4, (847) 543-2021

Adult Education classes are intended for people who live in Lake County. They are not appropriate for students with B1, B2, F1, F2, J1 or J2 visas, nor are they appropriate for short-term visitors to the U.S.

In general, students must be at least 18 years old in order to enroll in adult education classes. However, 16-year-olds and 17-year-olds may register with an official Secondary School Reference Form signed by their local High School authorized representative. U.S. High School graduates and 16-year-olds must meet additional eligibility requirements. New students must attend an orientation session before attending classes.

The Adult Basic Education, GED and ESL Division provides several specific types of educational opportunities and is funded in part by grants from the federal government.

### **SAE 10 ASE Preparation in Spanish 1 Low (Variable) 0.5-6 Hours**

This course is an individualized program in general language development and mathematics. Students progress at their own rates in reading comprehension, grammar, spelling, and punctuation as well as mathematics. The program is designed to raise basic skills in mathematics, reading and language to a level which will enable students to pursue the ASE Programs. This course is taught in Spanish.

*Prerequisite:* Must be placed into class using a mandatory assessment OR consent of instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **SAE 11 ASE Preparation in Spanish 2 Low (Variable) 0.5-6 Hours**

This course is designed for students to improve their skills in reading comprehension, grammar, spelling, punctuation and mathematics. The program is designed to enable students to pursue the Spanish ASE test. This course is taught in Spanish.

*Prerequisite:* Must be placed into class using a mandatory standardized assessment or consent of instructor and/or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **SAE 13 Pre-ASE Mathematics 1 in Spanish (Variable) 0.5-6 Hours**

This mathematics course will cover the real number system and charts and graphs with more than one variable. This course will be taught in Spanish.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE Espanol pretest levels from 9.0–10.9) OR consent of instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **SAE 15 Pre-ASE Mathematics 2 in Spanish (Variable) 0.5-6 Hours**

This mathematics course will cover probability, linear functions, and graphs of linear equations. This course will be taught in Spanish.

*Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE Espanol pretest levels from 9.0–10.9) OR consent of instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

### **SAE 17 Pre-ASE Mathematics 3 in Spanish (Variable) 0.5-6 Hours**

This mathematics course will cover theorems of geometric figures and coordinate geometry. This course is taught in Spanish. This course serves Spanish speaking Adult Basic Education students without a high school diploma who score a grade level equivalent of 9.0 - 10.9 on a standardized assessment (e.g. TABE Espanol) test.

*Prerequisite(s):* Must be placed into class using a federal/state mandated assessment OR consent of instructor or department chair. (1.8)

*Course fee*

*May be taken four times for credit*

**SAE 19 Pre-ASE Mathematics 4 in Spanish (Variable) 0.5-6 Hours**

This mathematics course will introduce students to mathematical symbols, their limitations and measurement. Students will use inequality symbols in equations and expressions to represent situations in story problems. This course will be taught in Spanish. *Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE Espanol pretest levels from 9.0–10.9) OR consent of instructor or department chair. (1.8)  
*Course fee*  
*May be taken four times for credit*

**SAE 20 ASE Preparation in Spanish I (Variable) 0.5-6 Hours**

This course is a preparation for those who want to take the ASE exam to earn their high school equivalency certificate. It is for adults who have not completed high school. This course will be taught in Spanish. *Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE Espanol pretest levels from 11.0–12.9) or consent of instructor and/or department chair. (1.8)  
*Course fee*  
*May be taken four times for credit*

**SAE 21 ASE Preparation in Spanish 2 (Variable) 0.5-6 Hours**

This course is for those who need further instruction before attempting the ASE exam to earn their high school equivalency certificate. This course will be taught in Spanish. *Prerequisite:* Must be placed into class using a mandatory assessment (e.g. TABE 11.0–12.9) or consent of instructor and/or department chair. (1.8)  
*Course fee*  
*May be taken four times for credit*

## Supply Chain Management (SCM)

Business and Social Sciences Division,  
Room T302, (847) 543-2047

**SCM 110 Introduction to Supply Chain Management (3-0) 3 Hours**

*Approved by ICCB (effective Fall 2017)*  
*Course modification effective Fall 2017. For details, refer to addendum.*

This course introduces the basics of end-to-end Supply Chain Management (SCM) that are necessary in achieving market and financial value to the company. Students will explore the basic fundamentals of SCM including planning, sourcing, inventory management, warehousing, distribution, logistics and transportation focusing on the role of the front line worker and how their function relates to the business in the service, retail, distribution and manufacturing industries. (1.2)  
*Prerequisite:* BUS 121 (C or better)

**SCM 115 Sourcing and Procurement (3-0) 3 Hours**

*Approved by ICCB (effective Fall 2017)*  
This course focuses on the strategic role and issues in sourcing and procurement within the supply chain function. Students will discuss the purchasing process, procurement cycle, relationships with suppliers, negotiations, commodities and global sourcing. Students will evaluate cost, price, and value analysis as part of the decision process. (1.2)  
*Prerequisite:* SCM 110 (C or better)

**SCM 120 Inventory Management and Planning (3-0) 3 Hours**

*Approved by ICCB (effective Fall 2017)*  
This course provides an overview of the dynamics of inventory management and the crucial role that planning plays in the constantly changing supply chain environment. Topics include in-depth understanding of forecasting, customer demand, production planning, new product launches, managing slow moving and obsolete inventory and the technologies needed to support these areas. Concepts in Inventory Management complement those learned in Sourcing and Procurement for a big picture frame of reference. (1.2)  
*Prerequisite:* SCM 110 (C or better)

**SCM 125 Warehousing and Distribution (3-0) 3 Hours**

*Approved by ICCB (effective Fall 2017)*  
This course provides students with an understanding of the role of warehousing within the larger Supply Chain function and the crucial role it plays to the business's bottom line. Concepts revolve around the movement of goods within the warehouse environment, including best methods for material handling, warehouse layout, technology and packaging beyond just protection. Students will learn present day warehouse automation and shipping and receiving methods. (1.2)  
*Prerequisite:* SCM 110 (C or better)

**SCM 130 Logistics and Transportation (3-0) 3 Hours**

*Approved by ICCB (effective Fall 2017)*  
This course provides a foundation for the role of transportation and logistics in meeting the needs of the customer as well as the objectives of the company. Students will analyze transportation methods and systems and discuss the role of cost vs. customer service. Regulatory and environmental impacts as well as specific requirements for moving goods between countries will be emphasized. (1.2)  
*Prerequisite:* SCM 110 (C or better)

**SCM 150 Supply Chain Management Internship (1-10) 3 Hours**

*Approved by ICCB (effective Fall 2017)*  
This course provides students with an opportunity to gain practical work experience under the supervision of a Supply Chain manager. The student must complete 150 hours of work at the internship site approved by the CLC supply chain curriculum coordinator. In addition to on-site work, the student will attend a one hour per week internship seminar. (1.2)  
*Prerequisite:* 18 hours of SCM coursework

## Course Information and Descriptions

### SCM 215 Operations Management (3-0) 3 Hours

*Approved by ICCB (effective Fall 2017)*

This course will give students a broad, practical perspective towards the field of Operations Management, a core business function. Students will examine concepts and problems encountered in planning, operating and controlling the production of goods and services. Topics include scheduling, inventory management, logistics, quality assurance, supply chain management, facility location and the use of state of the art computer systems to better manage operations.

SCM 215 and BUS 215 are cross-listed. (1.2)

*Prerequisite:* BUS 121 (C or better) and Basic Algebra Readiness

## Surgical Technology (SRG)

Biological and Health Sciences Division,  
Room B213, (847) 543-2042

### SRG 110 Introduction to Surgical Technology (4-4) 6 Hours

This course introduces various types of healthcare institutions and their structures then focuses on the surgical technologist and other surgical team members and their roles within such institutions. It presents concepts of communication skills and ethical, moral, and legal responsibilities of the surgical team members. Sterilization, disinfection, asepsis, and surgical environment as they relate to various clinical roles and care of the patient will be discussed. It introduces basic surgical instruments, equipment and supplies. Focuses include processing and care of instruments, distribution of supplies, and inventory control. In laboratory setting, emphasis is placed on principles and practices related to asepsis, surgical environment and identification and utilization of commonly used surgical instruments, equipment and supplies. (1.2)

*Prerequisites:* BIO 111 OR BIO 244 and BIO 245 (all C or better), and admission to the Surgical Technology Program

*Course fee*

### SRG 111 Principles of Practice and Introduction to Surgical Procedures (5-8) 7 Hours

This course introduces the student to the surgical technologist role. It presents concepts of general surgical patient care, wound healing and basic case preparation and procedures. Basics of open, endoscopic, robotics and other minimally invasive procedures are discussed. In both simulated and clinical laboratory settings, emphasis is placed on basic surgical procedures during pre-operative, intra-operative, and post-operative phases commonly performed in the operating room setting. (1.2)

*Prerequisite:* SRG 110 (C or better)

*Course fee*

### SRG 112 Surgical Procedures I (4-8) 6 Hours

This course focuses on theory and clinical procedures in general, rectal, obstetric and gynecologic, endoscopic, ear, nose and throat, head and neck, oral and maxillofacial surgeries. In both theory and clinical settings emphasis is placed on knowledge of relevant anatomy, pathology, diagnostic procedures and tests, special preoperative preparation, special instruments, supplies, drugs, special equipment, intraoperative preparation, surgical procedure, prognosis, and postoperative care and complications for surgeries addressed in this course. (1.2)

*Prerequisite:* SRG 111 (C or better)

*Course fee*

### SRG 113 Surgical Procedures II (4-8) 6 Hours

This course focuses on theory and clinical procedures in genitourinary, orthopedic, hand, plastic, neurologic, thoracic, cardiac, peripheral vascular, and general pediatric surgeries. In both theory and clinical settings, emphasis is placed on knowledge of relevant anatomy, pathology, diagnostic procedures and tests, special preoperative preparation, special instruments, supplies, and drugs, special equipment, intraoperative preparation, surgical procedure, prognosis, and postoperative care and complications for surgeries addressed in this course. (1.2)

*Prerequisite:* SRG 112 (C or better)

*Course fee*

### SRG 114 Surgical Procedures III (3-0) 3 Hours

This course focuses on theory and clinical procedures in ophthalmic, peripheral vascular, cardiac, and transplant specialties. In both theory and clinical settings, emphasis is placed on knowledge of relevant anatomy, pathology, diagnostic procedures and tests, special preoperative preparation, special instruments, supplies, and drugs, special equipment, intraoperative preparation, surgical procedure, prognosis, and postoperative care and complications for surgeries addressed in this course. It prepares students for the Certified Surgical Technologist Exam. The role and responsibilities of the surgical technologist, including using professional communication skills and incorporating critical thinking skills in clinical situations are discussed. Students are assisted with developing a professional image through discussion about professional expectations and responsibilities. (1.2)

*Prerequisite:* SRG 113 (C or better)

*Course fee*

### SRG 115 Surgical Technology Internship (1-8) 3 Hours

This course focuses on students' performance ability in the role of Surgical Technologist during select surgical procedures in general, orthopedic, gynecological, genitourinary, peripheral vascular and ophthalmic. It includes possible clinical experience in, major vascular, cardiac, transplant, trauma, and procurement surgeries. (1.2)

*Prerequisite:* SRG 113 (C or better)

*Course fee*

### SRG 117 Surgical Pharmacology (3-0) 3 Hours

Students enrolled in this course will be provided with an overview of basic pharmacology, emphasizing specific areas of pharmacology as they relate to surgery and anesthesia. Routes of administration and safe practices will also be discussed.

*Note:* This course should ONLY be taken by those students pursuing the Surgical Technology Certificate. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness

**SRG 118 Advanced Surgical Procedures (3-0) 3 Hours**

This course focuses on theory and advanced procedures in general, genitourinary, gynecologic, orthopedic, plastic, neurologic, thoracic, cardiac, peripheral vascular, endoscopic and general pediatric surgeries. Emphasis is placed on knowledge of relevant anatomy, pathology, diagnostic procedures and tests, special preoperative preparation, special instruments, supplies, and drugs, special equipment, intraoperative preparation, surgical procedure, prognosis, and postoperative care and complications for surgeries addressed in this course. Utilization of advanced technologies, such as robotics, minimally invasive radiology and endoscopy in the various surgical procedures and specialties are discussed. (1.2)

*Prerequisite:* Completion of the Surgical Technology Certificate Program

**SRG 119 Essentials of Microbiology (2-0) 2 Hours**

This course introduces students to microorganisms with an emphasis on pathogenic organisms such as bacteria, yeasts, molds and viruses. The role of microorganisms in causing infection and development of immunity will also be discussed.

*Note:* This course should ONLY be taken by those students pursuing the Surgical Technology Certificate. (1.2)

*Prerequisite:* College Reading and Writing Readiness AND Basic Algebra Readiness  
*Course fee*

## Theatre (THE)

Communication Arts, Humanities and  
Fine Arts Division, Room B213, (847) 543-2040

**THE 121 Introduction to Theatre I (3-0) 3 Hours**

This course presents a broad overview of live theatre. It will cover the various elements that make up theatre, the history of theatre, the theatre of the present, and the practitioners involved in the production of live theatre. Work on college productions is required. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

**IAI: F1 907**

**THE 123 Diversity in American Theatre (3-0) 3 Hours**

This course will examine various dramatic expressions that reflect the experience and construction of racial and cultural identity in the United States. It will explore issues of diversity in contemporary U.S. society and introduce a sampling of dramatic literature which reflects this diversity. Specific focus will be given to African American Theatre, Hispanic Theatre, Asian American Theatre, Native American Theatre, feminist theatre, and gay and lesbian theatre. (1.1)

*Prerequisite:* College Reading and Writing Readiness  
*Fulfills the CLC I/M Education Requirement.*

**IAI: F1909D**

**THE 125 Principles of Acting (3-0) 3 Hours**

This course introduces students to the fundamental skills and concepts of acting. Concentration, observation, playing action and other basics are introduced through acting exercises, improvisations, and scene study. Major acting approaches, such as Cohen, Meisner, Stanislavski, and Shurtleff, will be used as the basis for helping the actor acquire craft to create believable characters. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

**IAI: TA 914**

**THE 126 Stagecraft (3-0) 3 Hours**

This course provides training in methods of scene construction, tool use, property construction, painting, rigging and shifting, with elementary work in lighting practice and control. Practical methods will be taught as well as a survey of historical staging styles to give students an understanding of the evolution of theatre. 20-30 hours of work on college productions is required. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

**IAI: TA 911**

**THE 127 Theatre Practicum II (0-2) 1 Hour**

This course involves supervised work on a production, either via a smaller acting role or backstage technical work like Props Master, running crew, etc. (1.1)

*Prerequisite:* THE 125 or THE 126

*May be taken three times for credit toward degree*

**THE 128 Introduction to Theatrical Costuming (3-0) 3 Hours**

This course is an introduction to the principles and elements of costume design for the theatre. This course will cover design concepts, character analysis and the creation of theoretical costumes for a play. This is a project based class and students will develop beginning costume construction skills. No previous design, sewing or costume experience is required. Students will be required to work on some aspect of college theatre productions. (1.1)

*Prerequisite:* College Reading and Writing Readiness OR concurrent enrollment in ENG 109 or ELI 109 or ELI 110 or ENG 100

**THE 129 Theatre Practicum (0-6) 3 Hours**

This course is designed to give students an in-depth experience of the technical work involved in a theatre production. Students will learn how the elements of theatre proceed from the planning stage through the performance nights. Students will be expected to work on actual crews of a production. (1.1)

*Prerequisite:* THE 125 or THE 126

*May be taken three times for credit toward degree*

**THE 145 Voice for the Stage (3-0) 3 Hours**

This course explores the demands of an actor's vocal life and provides techniques to strengthen the speaker's vocal instrument. Major voice production approaches, such as Linklater, Berry, and Rodenburg will be used to help the student develop a healthy expressive voice for the stage as well as for everyday communication. (1.1)

*Prerequisite:* College Reading and Writing Readiness

## Course Information and Descriptions

### **THE 220 Creative Dramatics for the Classroom Teacher (3-0) 3 Hours**

This course introduces the skills and techniques of the creative dramatics process to classroom teachers at the pre-school, grade school, junior high and high school levels for use in all curriculum areas. The format includes explanation, demonstration and discussion of the games, improvisational experiences, role play, storytelling, puppetry and other educational exercises used in the classroom setting. Major emphasis is placed on incorporating creative drama as a process to facilitate learning. (1.1)

*Prerequisite:* College Reading and Writing Readiness

### **THE 223 Play Analysis for Production (3-0) 3 Hours**

This course is an introductory exploration of the relationships between the dramatic text and the play in performance with special emphasis on basic terminology and methodology. Representative plays will be studied in their genre, historical and social contexts. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Typically offered fall only*

### **THE 225 Acting II (3-0) 3 Hours**

This course is a continuation of the study of acting, this course will concentrate on characterization, scene study and ensemble work. An introduction to acting styles and period drama will be included. (1.1)

*Prerequisite:* THE 125

### **THE 226 Lighting for Stage and Studio (3-0) 3 Hours**

This course will instruct the student in basic electricity, technology, and design of lighting for the stage; elements of studio lighting techniques will also be taught. Specifications and the use of instrumentation will be learned with a hands on approach. Special emphasis will be given to learning the operation of computer controlled lighting boards, as well as more basic manual lighting controllers. Lighting design theory will be explored and each student will complete two project designs. (1.1)

### **THE 228 Directing I (3-0) 3 Hours**

This course is an introduction to the principles, problems, procedures of directing for the stage. Will include historical background, script selection, interpretation, stage composition, blocking, rehearsal techniques and performance, and a workshop in which students will have the opportunity for practical application of the principles of directing. (1.1)

*Prerequisite:* THE 125

### **THE 229 Stage Makeup (3-0) 3 Hours**

This course is an investigation of the principles, techniques and materials of stage makeup and practical experience in their application. Students will learn how to apply makeup on their own face using both cream and water-based makeup. Contouring, glamour, aging, facial hair, wig use, and historical character are some of the topics that will be covered. In addition, the creation of prosthetics and their applications will be learned. There will also be a section on triage or moulage makeup techniques. (1.1)

*Course fee*

### **THE 299 Special Topics in Theatre (Variable) 1-3 Hours**

This course addresses the in-depth study of special topics in Theatre, which do not have specific courses in the catalog. Course content and requirements will vary depending on the topic being studied. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*May be taken four times, but any topic only once*

## Vocational Skills Training (VST)

### Adult Basic Education, GED® and ESL Division Building 4, (847) 543-2021

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In general, students must be at least 18 years old in order to enroll in adult education classes. However, 16-year-olds and 17-year-olds may register with an official Secondary School Reference Form signed by their local High School authorized representative. U.S. High School graduates and 16-year-olds must meet additional eligibility requirements. New students must attend an orientation session before attending classes.

The Adult Basic Education, GED and ESL Division provides several specific types of educational opportunities and is funded in part by grants from the federal government.

### **VST 717 Model Office I for ESL (Variable) 0.5-6 Hours**

This course is a simulated work environment providing student “employees” with hands-on training necessary for English Language Learners to transition into unsubsidized employment or community college career training programs such as AOS and CIT. Beginning technical skills, basic office skills and on-the-job survival skills will be covered in the course. (1.6)

*Corequisite:* ESL 50 or higher OR Department Consent

*Course fee*

*May be taken four times for credit*

### **VST 718 Model Office II for ESL (Variable) 0.5-6 Hours**

This course is a simulated work environment course that provides hands-on training necessary for English Language Learners to transition into entry level unsubsidized employment or community college career training courses such as AOS and CIT. Beginning technical skills, basic office skills and on-the-job survival skills will be covered in this course. (1.6)

*Corequisite:* ESL 50 or higher OR Department Consent

*Course fee*

*May be taken four times for credit*

**VST 719 Model Office III for ESL (Variable) 0.5-6 Hours**

This course is a continuation of Model Office I and II providing English Language Learners as student “employees” with hands-on training necessary for transition into unsubsidized employment or community college career training programs such as AOS and CIT. Technical skills, basic skills and on-the-job survival skills are covered in this course. Students will focus on Word Processing, PowerPoint, Excel or Publisher. (1.6)

*Corequisite:* ESL 50 or higher OR Department Consent

*Course fee*

*May be taken four times for credit*

**VST 720 Model Office-Level IIB (Variable) 0.5-8 Hours**

This course is a continuation of VST 718 Model Office - Level IIA. The Model Office is a simulated work environment providing student “employees” with hands-on training necessary for transition into unsubsidized employment in an office environment. Technical skills, basic skills and on-the-job survival skills will be covered in this course. (1.6)

*Course fee*

## Welding (WLD)

Engineering, Math and Physical Sciences Division,  
Room T302, (847) 543-2044

**WLD 113 Welding Blueprint Reading (3-0) 3 Hours**

This course will cover the study and development of blueprint reading skills as they apply to the metals/welding fabrication trades. Skill and proficiency in understanding the make-up and interpretation of prints will include the study of associated materials, processing, dimensioning, weld joint designs and symbols, as well as fundamental drawing abilities.

*Note:* Student must furnish basic required equipment. (1.2)

*Typically offered fall only*

**WLD 117 Applied Fabricating and Processing (2-2) 3 Hours**

This course enables the student to study supplemental machining skills required in the weldment fabrication industry. Students will gain experience on various machine tools such as: drill press, horizontal saws, vertical saws, pedestal grinders, brake press, and shears. The identification of various types of ferrous and non ferrous structural materials will also be visited. Students will continue the study of welding blueprint reading as well as advanced measurement and layout procedures. Final inspection of both welds and weldment dimensions are stressed along with metal finishing processes and the heat treatment of ferrous alloys.

*Note:* Student must furnish basic required equipment. (1.2)

*Prerequisite:* WLD 113 and WLD 170, and one of the following:

WLD 172 or WLD 175 or WLD 178

*Course fee*

*Typically offered spring only*

**WLD 170 General Welding (2-2) 3 Hours**

This course provides a general and basic knowledge of safety, operation, and the fundamentals of gas, shielded metal arc, gas tungsten and gas metal arc welding. Primary and essential skills in their safe and proper operation will be developed. Equipment set up, applications, tools, materials will be covered. Development of welding skills is secondary to the primary understanding of safety, and knowledge of welding processes application and associated equipment.

*Note:* Student must furnish basic required equipment. (1.2)

*Course fee*

**WLD 171 Gas Welding, Cutting, and Brazing (2-2) 3 Hours**

This course will present welding theory, safety, care of equipment, skill development and application with the fuel-gas process. It covers fusion welding, brazing, and cutting processes with steel. Opportunity to practice and work with pipe, cast iron, aluminum, and soldering will be presented.

*Note:* Student must furnish basic required equipment. (1.2)

*Prerequisite:* WLD 170

*Course fee*

*Typically offered spring only*

**WLD 172 Shielded Metal Arc Welding (2-2) 3 Hours**

This course covers the fundamental theory and practice of “stick” electrode welding in the flat and horizontal positions. Safety, equipment set-up and adjustment, materials preparation, and electrode selection are emphasized. Opportunity to work with a variety of material thicknesses, joint designs, and all common electrode types will be presented; as well as access to a large variety of machine types. Welding of steel and its alloys is emphasized, but opportunity is provided for study and practice of welding other metals.

*Note:* Student must furnish basic required equipment. (1.2)

*Prerequisite:* WLD 170

*Course fee*

*Typically offered fall only*

**WLD 174 Advanced Shielded Metal Arc Welding (2-2) 3 Hours**

This is an advanced study in “stick” electrode welding theory and practices. It features the opportunity to develop out-of-position welding abilities on plate and pipe, study methods of weld testing, certification procedures, and welding of stainless steel, cast iron and aluminum with the SMAW process.

*Note:* Student must furnish basic required equipment. (1.2)

*Prerequisite:* WLD 170 and WLD 172

*Course fee*

*Typically offered spring only*

## Course Information and Descriptions

### **WLD 175 Gas Metal Arc Welding (2-2) 3 Hours**

This course provides the student with a thorough understanding of hazards and safety procedures used in gas metal arc welding. Students will be able to produce quality gas metal arc welds in the flat and horizontal positions on mild steel from 3/16 inch sheet to 1/2 inch plate using single and multiple pass techniques. Short circuit and spray transfer methods are introduced. Students will also learn to troubleshoot problems, apply corrective measures, and perform quality checks on the welds. American Welding Society techniques for visual inspection and mechanical testing will be used to determine quality of welds.

*Note:* Student must furnish basic required equipment. (1.2)

*Prerequisite:* WLD 170

*Course fee*

*Typically offered spring only*

### **WLD 176 Welding Certification (2-2) 3 Hours**

This course helps students prepare for and complete certification or qualification testing utilizing chosen welding processes. American Welding Society D1.1 standard structural welding code will be used, or those codes specified by a current or potential employer.

*Note 1:* Student must furnish basic required equipment.

*Note 2:* Student shall be responsible for the costs of any testing or lab reports performed by outside agents. Individuals or groups with special needs or requirements may enroll with the consent of the program coordinator. (1.2)

*Prerequisite:* WLD 170 (C or better), and one or more of the following: WLD 174, WLD 175, WLD 178 (all C or better)

*Recommended:* WLD 171 (C or better)

*Course fee*

*Typically offered fall only*

### **WLD 178 Gas Tungsten Arc Welding (2-2) 3 Hours**

This course will provide students with a thorough understanding of gas tungsten arc welding, arc characteristics, and safety procedures and hazards. Students will obtain the skills necessary to perform quality gas tungsten arc welds on steel and non ferrous alloys. Weld characteristics of mild steel and information on pulsed current GTAW will be included. Upon completion of the course, students will be able to use the gas tungsten arc welding process in the flat position to produce quality square groove and fillet welds on carbon steel.

*Note:* Student must furnish basic required equipment. (1.2)

*Prerequisite:* WLD 170

*Course fee*

*Typically offered fall only*

### **WLD 179 Gas Tungsten Arc Welding II (2-2) 3 Hours**

This course is a continuation of WLD 178 Gas Tungsten Arc Welding and will focus on the welding of stainless steel in the horizontal and overhead positions. Additionally, groove welds in both the 2G and 5G positions using mild steel filler rod on mild steel pipe and stainless steel filler rod on steel pipe will be studied. Thin wall stainless steel pipe and aluminum filler rod on aluminum pipe will also be examined. (1.2)

*Prerequisite:* WLD 178

*Course fee*

*Typically offered summer only*

## Continuing Education Courses

Professional Development offers a variety of continuing education courses with Vocational Training credit that prepare students to obtain skills to enhance their workforce competencies, prepare for licensure, license renewal or meet certification requirements. The course offerings vary each semester and are listed in the Workforce and Professional Development Institute (WPDI) schedule at [www.clcillinois.edu/wpdi](http://www.clcillinois.edu/wpdi). Continuing Education Vocational Credits do not apply to any degree or certificate program offered at the college in the academic divisions. Vocational credits will not be added to a student's academic credit hours or included in the GPA. Students receive a grade of P (Pass) or N (No Pass). Call the department at (847) 543-2615 for additional information

### Continuing Professional Development (847) 543-2615

PCDL 1	Truck Driver Training	10 hours	PPRO 65	Customer Service	.5 hour
PCJI 1	Community Service Officer 1	3 hours	PPRO 66	Business Writing	.5 hour
PCTR 10	Microsoft Word: Level 1	.5 hour	PPRO 70	Presentation Skills	1 hour
PCTR 11	Microsoft Word: Level 2	.5 hour	PPRO 71	Conflict Management	.5 hour
PCTR 12	Microsoft Word: Level 3	.5 hour	PPRO 72	Negotiating to Agreement	.5 hour
PCTR 15	Microsoft Excel: Level 1	.5 hour	PPRO 75	Time Management	.5 hour
PCTR 16	Microsoft Excel: Level 2	.5 hour	PPRO 76	Improving Email Promotions	1 hour
PCTR 17	Microsoft Excel: Level 3	.5 hour	PPRO 77	Boosting Your Website Traffic	1 hour
PCTR 20	Microsoft Access: Level 1	.5 hour	PPRO 78	Online Advertising	1 hour
PCTR 21	Microsoft Access: Level 2	.5 hour	PPRO 79	eMarketing Essentials Series	3 hours
PCTR 22	Microsoft Access: Level 3	.5 hour	PPRO 80	Emerging Leader	.5 hour
PCTR 30	PowerPoint: Level 1	.5 hour	PPRO 81	Building Supervisory Foundations	.5 hour
PCTR 31	PowerPoint Level 2	.5 hour	PPRO 85	Essentials of Project Management	1 hour
PCTR 40	Adobe Photoshop: Level 1	.5 hour	PPRO 86	Advanced Project Management	1 hour
PCTR 41	Adobe Photoshop: Level 2	.5 hour	PPRO 87	Project Management	
PCTR 70	Microsoft Project: Level 1	.5 hour		Professional (PMP) Exam Prep	.5 hours
PCTR 75	Adobe InDesign: Level 1	.5 hour	PPRO 95	Essentials of Lean	.5 hours
PCTR 76	Adobe InDesign: Level 2	.5 hour	PPRO 96	The Lean Process	.5 hours
PHRS 1	Human Resource Series	1 hour	PPRO 97	Lean Organization and Analysis	.5 hours
PLNG 20	Professional Interpreter: Equal Footing Training	4 hours	PPRO 98	Lean Essential Series	1.5 hours
PPRO 12	Basics of Supply Chain Management	1.5 hours	PPSI 5	Security Officer Basic	1.5 hours
PPRO 37	Introduction to Social Media		PPSI 6	Security Officer Firearm Training	1.5 hours
PPRO 38	Marketing Using Social Media	1 hour	PPSI 20	Private Investigation	1.5 hours
PPRO 39	Integrating Social Media Into your Organization	1 hour	PRLE 2	Broker Pre-Licensing Topics	5 hours
PPRO 40	Social Media Series	3 hours	PRLE 3	Broker Pre-Licensing Principles	1 hour
PPRO 47	Supervisory and Leadership Training	2 hours	PRLE 40	Home Inspection	4 hours
PPRO 48	Business Coaching	2 hours	PTCH 51	CSI for the Science Educator	3 hours
PPRO 54	Strategic Sales Certificate	2 hours	PTEC 1	Comp TIA A+ Certification	3 hours
PPRO 55	Value Based Selling	.5 hour	PTEC 2	CISCO CCNA Certification	6 hours
PPRO 56	New Business Development	.5 hour	PTEC 3	Comp TIA Security+ Certification	3 hours
PPRO 57	Time and Territory Management	.5 hour	PTEC 20	Basic Photovoltaics	.5 hours
PPRO 58	Sales Presentation Skills	.5 hour	PTEC 21	Solar Domestic Hot Water Systems	.5 hours
PPRO 62	Business Research	3 hours	PTEC 22	Introduction to Wind Power	.5 hours
			PTEC 70	Private Pilot Ground School	3 hours
			PVET 1	Veterinary Assistant Training	7 hours
			VALH 10	Special Topics: CNA Recertification	variable .5-3 hours
			VALH 30	Special Topics: Dental Hygiene	variable .5-3 hours
			VALH 40	Special Topics: Medical Imaging	variable .5-4 hours
			VLAH 50	Special Topics: Health Information CE	variable .5-5 hours
			VALH 60	Special Topics: Surgical Technology CE	variable .5-6 hours
			VALH 70	Special Topics: Medical Lab CE	variable .5-7 hours
			VALH 80	Special Topics: Medical Assistant CE	variable .5-8 hours
			VALH 85	Special Topics: Massage Therapy CE	variable .5-9 hours
			VALH 90	Special Topics: Healthcare Professional CE	variable .5-10 hours
			VALH 95	Pharmacy Technician Training	7 hours

## Grayslake Campus

By far the largest College of Lake County site, the Grayslake Campus (GLC) consists of 226 acres. About one-third of the campus is currently devoted to buildings and parking areas and another 20 percent is allocated for future building. Natural beauty is a distinct feature of the campus, and about one-third of the acreage will be permanently preserved as natural areas.

Buildings on the campus have been gradually constructed over the years with careful planning to offer students a rich and stimulating academic experience. Most of the buildings are connected, but a few, such as the P.E. Center (Building 7), Automotive Collision Repair (Building 12) and the Horticulture Building, stand alone.

### The major features of the campus are:

**A Wing** (formerly the C Wing), completed in 1987, houses labs and classrooms for the biology, chemistry and health information technology programs. Many of the labs are undergoing renovations in 2017-18, including two new anatomy and physiology labs and classrooms. The Counseling, Advising and Transfer Center and Career and Job Placement Center are located on the first floor. A conference center, A Wing Auditorium and classrooms are located in the lower level. A Wing also comprises the new Science and Advanced Technology Building, being completed in 2017. This three-story facility houses engineering and photonics labs on the first floor and chemistry labs on floors two and three. The new science facility is proposed to be a LEED platinum building, the highest rating achievable through the USGBC. Some of its green features include a rooftop photovoltaic array, geothermal heating and cooling, rainwater harvesting, LED lighting and a living wall.

**B Wing**, completed in 1974, received major remodeling in 2017. It contains updated classrooms and faculty offices and houses division offices for Communication Arts, Humanities and Fine Arts and Biological and Health Sciences (Room B213). The B Wing also includes the new Welcome and One Stop Center (admissions, financial aid, cashiers and registrar); LancerZone Campus Store; and Brandel Court, where students can study and socialize. The Testing Center, Office for Students with Disabilities and Center for International Education are located on the first floor. In fall 2016, nearly 15,000 square feet of space was added, comprised of the Café Willow addition, the Student Commons, Student Street, a multipurpose room, computer Help Desk and offices/meeting rooms for Student Activities, clubs and organizations. The Lancer Book Stop, where you can buy and rent textbooks, is located in the lower level.

**C Wing** (formerly the A Wing), completed in 1974, containing classrooms, faculty offices and spaces for studying and socializing, is closed for renovations in 2017.

## Hours of Operation

These hours are generally maintained during the semester while classes are in session. There may be exceptions during summer session, breaks or holidays.

### Bookstore - Grayslake

Monday-Thursday .....7:45 a.m. to 7 p.m.  
Friday .....7:45 a.m. to 4:30 p.m.

### Campus Store - Grayslake

Monday-Thursday .....7:45 a.m. to 8 p.m.  
Friday .....7:45 a.m. to 4:30 p.m.

### Library (spring and fall semesters) Grayslake Campus

Monday-Thursday .....8 a.m. to 9 p.m.  
Friday .....8 a.m. to 4:30 p.m.  
Saturday .....9 a.m. to 3 p.m.

### Lakeshore Campus

Monday-Thursday .....7:30 a.m. to 10 p.m.  
Friday .....7:30 a.m. to 4:30 p.m.  
Saturday .....8 a.m. to 2 p.m.

### Physical Education Center

Monday-Thursday .....8 a.m. to 9 p.m.  
Friday .....8 a.m. to 4 p.m.  
Saturday .....9 a.m. to 3 p.m.

### Southlake Campus

Monday-Thursday .....7:30 a.m. to 10 p.m.  
Friday .....7:30 a.m. to 4:30 p.m.  
Saturday .....8 a.m. to 2 p.m.

### Welcome and One-Stop Center:

#### Admissions

Monday-Thursday .....7:30 a.m. to 7:30 p.m.  
Friday .....7:30 a.m. to 4:30 p.m.

#### Cashiers

Monday-Thursday .....7:30 a.m. to 7 p.m.  
Friday .....7:30 a.m. to 4 p.m.

#### Financial Aid

Monday-Thursday .....7:30 a.m. to 7:30 p.m.  
Friday .....7:30 a.m. to 4:30 p.m.

#### Records

Monday-Thursday .....7:30 a.m. to 7:30 p.m.  
Friday .....7:30 a.m. to 4:30 p.m.

**Multi-Use Instructional Building (D Wing)**, completed in 1996, is home to the Children’s Learning Center and classrooms and faculty offices for the art, nursing education, digital media and design, early childhood education and human services programs.

**Library Wing (L Wing)**, completed in 1980, serves as the cultural center of the college. It includes the John C. Murphy Memorial Library, an open computer lab, Tutoring Center, Coaching for Academic Success, TRiO Student Support Services, Esper A. Petersen Reading Room and Robert T. Wright Community Gallery of Art. The library offers research workshops by librarians in addition to books, periodicals, access to research databases and numerous study areas for groups and individuals. Students can check out laptop computers, iPads, textbooks, books, DVDs, CDs and more. The Art Gallery serves as a venue for exhibitions and juried competitions. Ceramics labs are located in the lower level in L029 and L035

**Technology Wing (T Wing)**, opened in 2005, houses academic programs for business, computer technology and industrial- and manufacturing-related technology fields, including engineering, HVAC technology, automotive technology, electrical engineering and mechatronics. The building has three floors plus a basement and includes 40 classrooms and computer laboratories, 18 discipline-specific laboratories and 27 faculty and administrative offices. Room T302 houses the Business and Social Sciences and the Engineering, Math and Physical Sciences division offices. Offices for Personal Enrichment and College Readiness and Dual Credit are in T317. The college’s Human Resources office is located in T102.

**James Lumber Center for the Performing Arts (P Wing)**, completed in 1997, houses CLC’s instructional programs in music, dance and theatre and serves as a venue for performing and cultural arts programming serving the entire community. The facility includes three theatres: a 600-seat Mainstage Theatre used for music concerts and other major events; a 250-seat Studio Theatre, used for most other productions and a smaller Experimental Theatre used for student productions and classes. The building also includes ample backstage areas (scenery shop, makeup room and costume shop); the Box Office; practice rooms for dance, choir and instrumental students; classrooms and faculty offices.

**Physical Education Center (Building 7)**, was completed in 1971 and the gymnasium added in 1980. In 2001, the fitness center and locker rooms were upgraded and an aerobics room was added. The center houses the Athletics and Physical Activities department on the second floor. Intercollegiate athletic contests, intramurals and fitness classes are held in the center, as well as graduation ceremonies, college fairs and external events. Outdoor athletic and recreation facilities include tennis courts, the Gene D. Hanson Baseball Field, intercollegiate softball and soccer fields and a multipurpose field.

**Building E**, completed in 1999. The CLC Police Department and CLC Foundation relocated to the E Building in 2016, and the Lake County Regional Superintendent of Schools rents office space.

**Building H** houses the horticulture program, two greenhouses, three classrooms and two hoop houses. The Campus Learning Farm, arboretum and apiary are located on the nearby grounds. Food grown on campus is sold in Willow Café and Prairie restaurant, and CLC honey is sold in the three campus stores.

**Building 4**, the last remaining structure from the original “quad” and completed in 1969, is home to Adult Education, ESL and GED division offices and classrooms.

**Building 12** houses the automotive collision repair program’s lab and three classrooms. The building was completely renovated in 2015 and is located directly behind the P.E. Center.

## Food Service

**Café Willow** is a full service café located on the first floor of the B Wing near the Student Commons. The menu includes a selection of daily menu offerings, grill favorites, pizza, sandwiches, soups, salads, drinks and desserts, all made fresh daily. Fresh and Go salads, sandwiches and snacks are available for students in a hurry. Café Willow is open daily, Monday through Friday, 7 a.m. through 2:30 p.m. and closed on Saturday and Sunday. The Café Willow Coffee Shop inside Café Willow provides hot and cold beverages, specialty coffee drinks, smoothies, Fresh and Go sandwiches, salads and pastries. Hot soup, pizza and grilled sandwiches are available after 2:30 p.m. The Café Willow Coffee Bar is open Monday through Thursday, 7 a.m. through 8:30 p.m., Friday, 7 a.m. through 4:30 p.m. and is closed on Saturday and Sunday.

**Kaldi’s Coffee Café** in the Atrium is located next to the Library. The menu includes hot and cold beverages and specialty coffee drinks. Fresh and Go sandwiches, salads, pastries and snacks are also available. Kaldi’s is open Monday through Thursday, 7 a.m. through 9 p.m., Friday, 7 a.m. through 2:30 p.m. and 8 a.m. through 1 p.m. on Saturdays during Fall and Spring Semesters (Kaldi’s is closed on Saturday during Summer Session and between semesters).

**Prairie**, opened in 2012 and located in Room A012, is a student-managed restaurant. Hospitality and Culinary Management students showcase their skills by preparing and serving lunch for the CLC community as part of their classes. Students experience all facets of running a restaurant and prepare menu items that use locally grown and produced ingredients, including produce grown on CLC’s Campus Learning Farm. Prairie provides the CLC community an opportunity to taste dishes typically served in upscale dining establishments.

## Facilities and Extension Locations

### Lakeshore Campus

**The Lakeshore Campus (LSC)**, located at 33 N. Genesee St. in Waukegan, offers students a variety of educational opportunities including high quality classrooms and self-paced video instruction. The Lakeshore Campus provides educational programming including the completion of the Associate in Arts degree; transfer and career courses that lead to the Associate in Science and Associate in Applied Science degrees; adult education, continuing education, community service activities and career development courses.

The Lakeshore Campus also provides a broad range of support services, which include registration, payment of tuition and fees, testing services, academic advising, tutoring, academic coaching, a library, a bookstore, child care, financial aid, counseling, faculty support and student life.

The Lakeshore Campus Library is located in N 214. Library hours for the fall and spring semesters are Monday through Thursday, 9 a.m. to 7 p.m. and Friday 10 a.m. to 2 p.m. Hours vary during the Summer Session. The Library houses a small print collection and offers access to a vast array of online resources. Laptop computers are available for student use. Materials from other campuses can be shipped to Lakeshore as needed. Faculty members may also arrange for library instruction sessions in their classes. A reference librarian is on site at various times during the week or available remotely via email and phone. Library resources can be accessed through the library webpage at [library.clcillinois.edu](http://library.clcillinois.edu) where there is a wide range of information for most student and faculty instructional and research needs. A CLC ID number is required to use many library resources from off-campus. To reach the Lakeshore Library call (847) 543-2139.

The Lakeshore Campus is open Monday through Thursday 7:30 a.m. to 10 p.m., Friday 7:30 a.m. to 4:30 p.m. and Saturday 8 a.m. to 2 p.m. For more information, call (847) 543-2191.

#### Parking

There are more than 400 free parking spaces in the College of Lake County parking garage adjacent to the Lakeshore Campus South Building that may be used by students. CLC students are required to obtain a parking permit from the Campus Police or at the reception desk in the South Building of the Lakeshore Campus before parking in the structure. The entrance to the garage is on Sheridan Road, and the entrance to the Lakeshore Campus from the garage is at the northwest corner of the garage at the rear of the South Building. ***All parked vehicles must have a valid parking tag.***

#### Textbooks

The bookstore hours are Monday through Thursday from 8 a.m. to 7 p.m. Textbooks are available at the Lakeshore Campus for students enrolled in courses at the Lakeshore Campus.

### Southlake Campus

**The Southlake Campus (SLC)**, located at 1120 S. Milwaukee Ave., Vernon Hills, offers close-to-home convenience for south Lake County residents. The Southlake Campus is located two miles south of Route 60 and just north of Route 45. An extension of Port Clinton Road through the college property provides two safe access and egress points to the college: Route 45 or Route 21.

In 2007 the college opened a modern 47,000+ square foot classroom building at Southlake, increasing instructional space four-fold and adding such features as a biology laboratory, five computer labs, a library, a testing and tutoring center, full-time and adjunct faculty offices and a conference area suitable for community and business meetings. In addition to the three-story glass and steel atrium that gives the campus its structural signature, Southlake also boasts the first public building green roofing in Lake County. In 2016, the college completed a 2,500 square foot addition to accommodate a state-of-the-art chemistry laboratory.

Credit offerings at Southlake include both day and evening courses that can be applied toward an Associate in Arts (A.A.) degree. Transfer and career courses that lead to Associate in Science (A.S.) and Associate in Applied Science (A.A.S.) degrees are also offered at the Southlake Campus. Courses leading to an A.A.S. degree in Health and Wellness Promotion are available. Certificate offerings at Southlake include the Massage Therapy Program, Wellness Coaching, Personal Training and Nurse Assisting. Southlake also offers the 75-hour Pharmacy Technician course. Courses in Nanoscience Technology are also offered at the Southlake Campus.

In addition, Southlake offers workplace training and skills development, non-credit personal enrichment and English as a Second Language. Other options include the Discovery and Quest programs for adults 50 and older and contract training for employers provided through the college's Workforce and Professional Development Institute.

Southlake's Campus and Student Support Center offers general campus information and assistance with admissions and registration. Academic, personal, transfer, financial aid and career counseling are also available by appointment. Drop-in advising is available during peak enrollment periods. The Center is located in V130 and is open Monday-Thursday 7:30 a.m. to 7:30 p.m., Friday 7:30 a.m. to 4:30 p.m. For more information, call (847) 543-6501.

The Library at Southlake is located in V106. Library hours are Monday through Thursday, 8 a.m. to 7 p.m. and Friday 8 a.m. to 4 p.m. Hours may vary during college breaks. The library houses a print collection and offers access to a vast array of online resources. A reference librarian is on site at various times during the week or available remotely via email and phone. For more information, call (847) 543-6533.

The Testing Center, located in V212, administers a variety of exams to meet different academic needs: Academic Proficiency Test (APT) for CLC course placement; CLEP and DSST for college credit by exam; CLC classroom make-up exams, exams for CLC online courses; exams for distance learning and online courses from other colleges; surveys and interest inventories for academic and career counseling, and others. Testing Center hours are Monday-Thursday 8 a.m. to 8 p.m.; Friday 8 a.m. to 4 p.m.; Saturday 9 a.m. to 1 p.m. Hours may vary during college breaks. Testing is done primarily by appointment. For more information, call (847) 543-6544.

The Tutoring Center is located in V212. Tutoring is available for math and science courses as well as writing for any course. Academic coaching is also available for students enrolled in pre-college courses at CLC. Tutoring Center hours are Monday-Thursday from 9 a.m. to 7 p.m. Hours may vary during college breaks. For more information, call (847) 543-6542.

The Southlake LancerZone Bookstore is located in V134. The bookstore hours are Monday-Thursday 8:30 a.m. to 8:30 p.m., Friday 8:30 a.m. to 1:30 p.m. The bookstore is open on Saturdays the week before and after the beginning of the semester. Hours may vary during college breaks. For more information, call (847) 543-6530.

The Southlake Campus is open Monday through Thursday 7:30 a.m. to 10 p.m., Friday 7:30 a.m. to 4:30 p.m. and Saturday 8 a.m. to 2 p.m. For more information, call (847) 543-6501.

## Great Lakes Center

College of Lake County (CLC) maintains an office at the Navy College, on the Naval Station Great Lakes (GTLK), by the Veteran Student Services Office. CLC is there to provide for service members, their families, and members of the surrounding community an opportunity to work towards their higher learning objectives. The Great Lakes Center is located at the Lifelong Learning Center, Building 617, Room 209. Services offered at the Great Lakes Center include:

- CLEP and DANTES testing, at the Navy College, by appointments. Please contact the Testing Center to set up an appointment – (847) 543-2021.
- Admission and enrollment.
- VA (federal), State, and Department of Defense benefits or tuition assistance counseling.
- Assist students in university policies and procedures and assist with the overall navigation of the university system.
- Provide information regarding relevant campus and community resources and services.

Please visit [clcillinois.edu/military](http://clcillinois.edu/military) for exact details of services offered by College of Lake County's Veteran Student Services or contact by phone at (847) 543-2018 or email, [veterans@clcillinois.edu](mailto:veterans@clcillinois.edu).

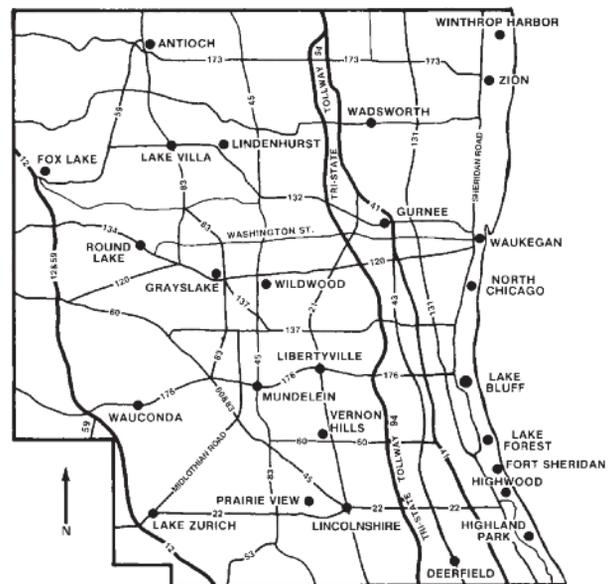
## Additional Extension Sites

The college also frequently offers classes at the following locations:

Adult Learning and Technology Center	Waukegan, IL
Beach Park Middle School	Beach Park, IL
Father Gary Graf Center	Waukegan, IL
Howe Elementary School	Beach Park, IL
Lake County High Schools Technology Campus	Grayslake, IL
Lake County Jail	Waukegan, IL
Mano a Mano	Round Lake, IL
Round Lake High School	Round Lake, IL
Salvation Army	Waukegan, IL
University of Lake County	Grayslake, IL
Viking Middle School	Gurnee, IL
Wauconda Area Public Library	Wauconda, IL
Wauconda High School	Wauconda, IL
Waukegan High School	Waukegan, IL
Youth Build Lake County	North Chicago, IL
Youth Conservation Corps	Waukegan, IL

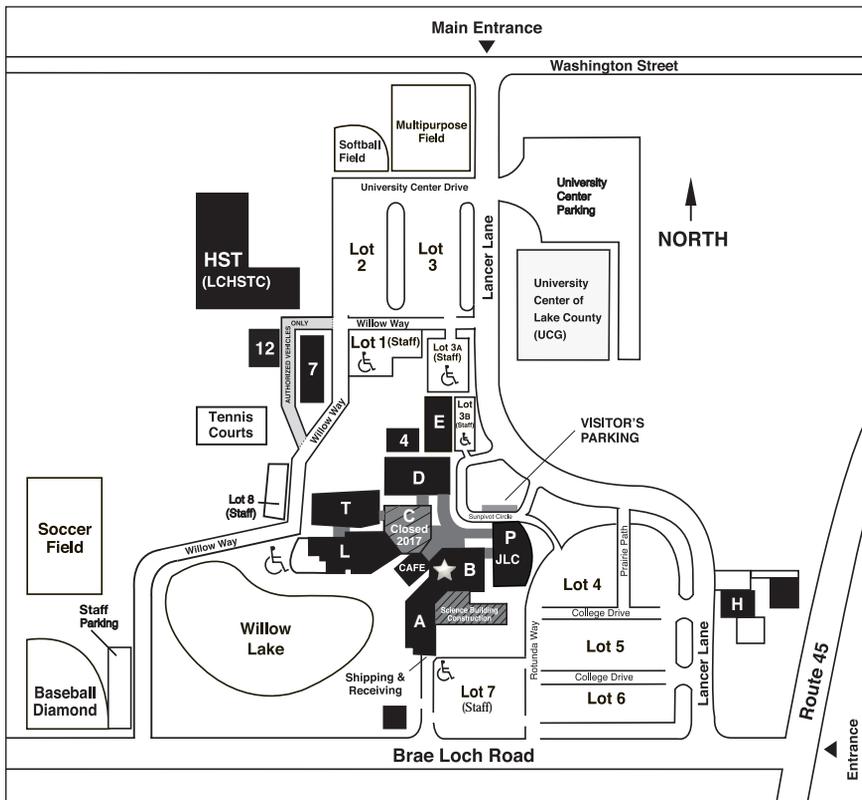
For a list of the extension sites used for a specific semester, consult the class schedule for that semester.

## Map of CLC District



## Facilities and Extension Locations

# Grayslake Campus 19351 W. Washington St., Grayslake IL 60030



**Note: C Wing is Closed for Renovation 2017**



### Welcome and One Stop Center

- Admissions
- Cashier
- Financial Aid
- Records

### Campus Buildings

#### E Building

- Administrative Affairs
- CLC Foundation
- Finance
- Health Center
- Purchasing

#### H Building

Horticulture

#### Building 4

Adult Education (GED & ESL)

#### Building 7

Physical Education Center

#### Building 12

Automotive Collision Repair

#### HST

Lake County High Schools  
Technology Campus

#### UCG

University Center of Lake County  
• Workforce and Professional  
Development Institute

### Parking Lots

Student and Visitor  
Lots 2, 3, 4, 5, and 6

Staff

Lots 1, 3A, 3, 7, and 8

#### A Wing

- Auditorium
- Conference Room
- Counseling, Advising and Transfer Center
- Educational Affairs
- Facilities
- Prairie (Student-Managed Restaurant)
- Shipping/Receiving/Printing
- Student Development

#### B Wing

- Biological and Health Sciences division
- Café Willow
- Career and Job Placement Center
- Center for International Education
- Communication Arts division
- Educational Talent Search
- Lancer Book Stop
- LancerZone Campus Store
- New Student Orientation (NSO)
- Office for Students with Disabilities
- Student Activities
- Student Resource Center
- Testing Center

#### D Wing

- Children's Learning Center
- Nursing Education

#### L Wing

- Atrium
- Coaching for Academic Success
- Coffee Shop
- Community Gallery of Art
- Computer Lab
- Library/LRC
- President's Office
- Public Relations and Marketing
- Reading Room
- TRiO Support Services
- Tutoring Center

#### P Wing

James Lumber Center for the  
Performing Arts

- Box Office
- Mainstage, Studio and  
Experimental Theatres

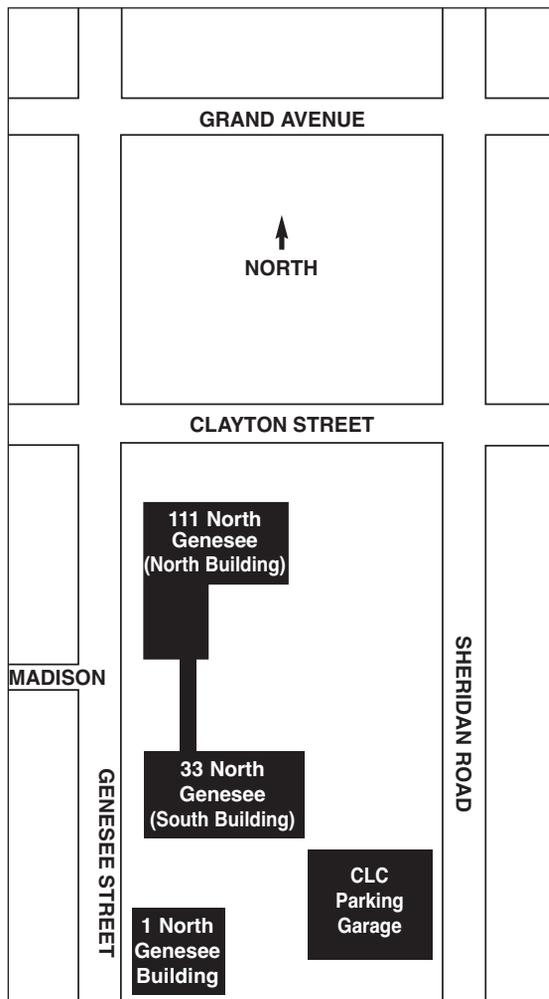
#### T Wing

- Business and Social Sciences  
division
- College Readiness and Dual Credit
- Engineering, Mathematics  
and Physical Sciences division
- Human Resources
- Personal Enrichment

## Facilities and Extension Locations

### Lakeshore Campus

1 N., 33 N. and 111 N. Genesee St.  
Waukegan, IL 60085

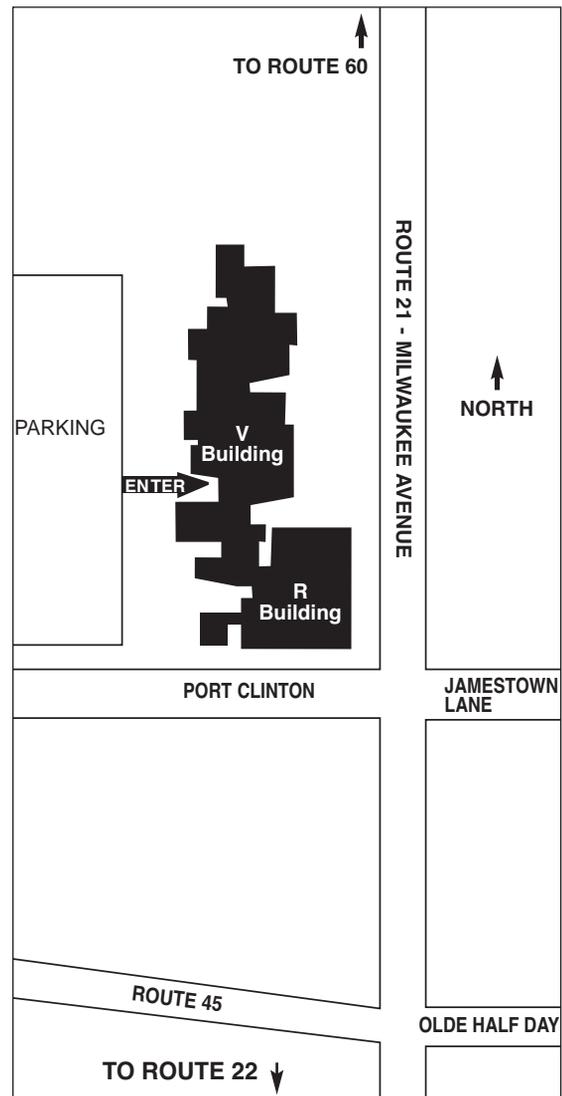


#### Buildings

- **111 North Genesee (North Building)**
  - Classrooms
  - Community Development
  - Computer Labs
  - Dental Hygiene Clinic
  - Library, Testing Center
  - Student Services Center
- **33 North Genesee (South Building)**
  - Administration
  - CLC Police Department
  - Childcare
  - Classrooms
  - LancerZone Bookstore
  - Tutoring Center
- **1 North Genesee**
  - Adult Education
  - Classrooms
  - Computer Lab (open to the community)

### Southlake Campus

1120 S. Milwaukee Ave.  
Vernon Hills, IL 60061



#### Buildings

- **Building V**
  - Campus and Student Support Center
  - Classrooms and Computer Labs
  - Conference Area
  - Glass Enclosed Atrium
  - Open Computer Lab
  - LancerZone Bookstore
  - Library
  - Testing Center and Tutoring Center
  - CLC Police Department
  - Green Roofing
- **Building R**
  - Classrooms
  - Center for Health and Wellness Promotion

## Full Time Faculty, Professional, Specialist and Administrative Staff

**Adams-Soller, Nedra**

Communication  
B.S., Eastern Michigan University  
M.A., Eastern Michigan University

**Aguilar, Lisa**

Laboratory Coordinator  
B.F.A., University of Utah

**Aguilera, Sandra**

Laboratory Specialist  
A.A., College of Lake County  
B.A., Lake Forest College

**Aguinaldo, Teresa**

Dean, Student Life  
B.A., University of Missouri, Columbia  
M.A., University of Missouri, Columbia

**Aichele, Kimberly**

Dental Hygiene  
B.S.Ed., Ohio State University  
M.A., University of Illinois, Springfield

**Aiossa, Elizabeth**

English  
B.A., Roosevelt University  
M.F.A., Roosevelt University  
Ph.D., Union Institute & University

**Alfano, John**

Manager, Campus Services  
A.A., College of Lake County

**Allen, Lori**

English  
B.A., University of Akron  
M.A., University of Akron

**Allen, M. Scott**

Heating and Air Conditioning  
Engineering Technology  
A.A.S., William Rainey Harper College  
B.A., Concordia University  
M.Ed., University of Illinois,  
Urbana-Champaign

**Allison, Stephanie**

Business Analyst, Educational Affairs  
B.S., Kent State University  
M.B.A., University of Phoenix

**Alonso, Javier**

Criminal Justice  
B.A., Northeastern Illinois University  
M.A., Northeastern Illinois University

**Alpert, Valerie**

Dance  
B.F.A., University of Illinois,  
Urbana-Champaign  
M.F.A., Ohio State University  
Ph.D., Texas Woman's University

**Ameji, Anjum**

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B.A., Smith College

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Health Information Technology  
B.S., University of Illinois,  
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M.A.Ed., National Louis University

**Andrews, Jeffrey**

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B.A., Augustana College  
M.A., Eastern Illinois University  
M.Ed., University of Illinois,  
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**Ardito III, Frank**

Physical Education  
B.S., University of Illinois, Chicago  
M.S., University of Illinois, Chicago  
Ed.D., Loyola University, Chicago

**Argoudelis, Patricia**

Assistant Director, Auxiliary Services  
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**Audi, Ahmad**

Nanotechnology/Chemistry  
B.S., Lebanese American University  
Ph.D., Kansas State University

**Aykroid, David**

Director, User Services  
A.A.S., College of Lake County  
B.S., Devry Institute of Technology

**Babik, Richard**

Lead Software Developer  
B.S., Illinois State University

**Baldwin, Alphonso**

Dean, Lakeshore Campus  
A.S., Highland Park  
Community College  
B.S., Madonna University  
M.S., Central Michigan University  
M.A., Morehead State University  
Ph.D., University of Alabama, Birmingham

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B.A., Dartmouth College  
M.B.A., Columbia Southern University

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Communication Arts, Humanities  
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M.M., Northwestern University

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M.S., University of Wyoming  
Ph.D., University of South Carolina

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A.A.S., Western Iowa Tech  
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B.A., DePaul University

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B.S., Rhode Island University  
M.A.E., School of the Art Institute  
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B.A., University of Iowa  
M.A., Loyola University, Chicago  
Ph.D., Loyola University, Chicago

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B.A., Knox College

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B.A., Augustana College  
M.P.A., University of Texas, Arlington

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B.A., Lake Forest College

**Betka, Roksana**

Manager, Student Services,  
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B.S., Dominican University  
M.A., Elmhurst College

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Office Associate, Nursing  
B.S., Northwestern University  
M.B.A., DePaul University

**Black, Kelly**

Reading  
B.A., Michigan State University  
M.Ed., DePaul University

**Black, Lamar**

Business and Industry Coordinator  
M.B.A., Keller Graduate School  
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**Blanchard, Robert**

Student Services Specialist  
B.S., University of Illinois,  
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M.A., Northern Illinois University

**Bochantin, Joseph**

Veteran Student Services Coordinator  
B.S., Northeastern Illinois University

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Art  
B.F.A., University of Evansville  
M.F.A., School of The Art Institute  
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Physics  
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B.S., University of Wisconsin, Whitewater  
M.S., Northeastern Illinois University

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B.A., University of Maryland University College  
B.S., Kansas State University  
M.S., Kansas State University

**Branson, Nicholas**

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B.A., Loyola University, Chicago  
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B.A., Boston College  
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Director, Small Business  
Development/International  
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B.A., Loras College

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Executive Director, James Lumber  
Center for the Performing Arts  
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M.A., School of The Art Institute  
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B.A., Northern Illinois University  
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M.F.A., Washington University  
M.Ph., CUNY Graduate Center  
Ph.D., CUNY Graduate Center

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M.S., Illinois Institute of Technology  
M.A.S., Northern Illinois University

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Lakeshore  
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B.A., Kendall College  
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B.A., University of Toronto,  
Ontario, Canada  
M.A., University of Southern California  
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**Coykendall, Mark**

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B.S.W., Troy University  
M.S.W., University of Illinois, Chicago

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**Cumpston, Ryan**

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B.S., Northern Illinois University  
M.S., Northern Illinois University

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B.A., Texas Tech University  
M.A., Franciscan University, Steubenville

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M.A., Webster University

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B.S., University of Wisconsin,  
La Crosse  
Ph.D., Northwestern University

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B.S., University of Illinois,  
Urbana-Champaign  
M.S.Ed., Northern Illinois University  
M.S.Ed., Northern Illinois University

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Automotive Technology  
B.S., Western Illinois University  
M.S.Ed., Southern Illinois University, Carbondale  
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Development Specialist  
B.S., Loyola University, Chicago

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Senior IT Technician II  
A.A., College of Lake County

**De Los Santos, Ivan**

Senior IT Technician II  
A.S., College of Lake County  
A.E.S., College of Lake County  
B.S., University of Illinois, Chicago

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IT Support Coordinator  
A.A.S., College of Lake County

**Demuro, Nancy**

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M.A., Northeastern Illinois University

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B.A., University of Dayton

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Professional Academic Advisor  
B.A., Northeastern Illinois University  
M.A., Northeastern Illinois University

**Dielman, Joseph**

Medical Imaging  
A.A.S., Triton College  
B.S., Northwestern University

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B.A., University of Mississippi  
M.A., University of Michigan,  
Ann Arbor

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Art  
B.F.A., Savannah State College  
M.F.A., School of The Art Institute  
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Business Administration  
A.S., College of Lake County  
B.S., University of Iowa  
M.M., Northwestern University

**Donewald, Kent**

Business Administration  
B.S., Indiana University, Bloomington  
J.D., Loyola University

**DuBay, Michalina**

Accessibility Coordinator  
A.S., College of Lake County  
B.S., University of Central Florida  
M.S., Illinois Institute of Technology

**Dublis, Katherine**

English  
B.A., Valparaiso University  
M.A., DePaul University

**Durbha, Vara**

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B.A., Osmania University  
M.A., Osmania University  
M.Ed., DePaul University

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Business Analyst, Institutional  
Effectiveness, Research and Planning  
B.A., DePaul University  
M.A., DePaul University

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A.A., Elgin Community College  
B.A., Eastern Illinois University  
M.A., Eastern Illinois University  
Ph.D., Union Institute and University

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Engineering  
B.S., Michigan Technological University  
M.A., Michigan Technological University

**Ekornaas, Nels**

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B.S., University of Wisconsin, Parkside  
M.S., Roosevelt University

**Esser, Krystyna**

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M.M., North Park University

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B.A., Columbia College, Missouri  
M.S., National Louis University

**Faulk, Josephine**

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B.A., University of Manchester, England  
M.A., University of Illinois, Chicago  
Ph.D., University of Illinois, Chicago

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A.S., College of Lake County  
A.A.S., College of Lake County  
B.S., DePaul University

**Filiatreault, Doria**

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M.S., University of Wisconsin, Milwaukee

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La Crosse  
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Music  
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M.A., Ball State University  
D.A., Ball State University

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Enrichment Center Coordinator  
B.A., Technologica Equinoccial University

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Laboratory Specialist, Biology  
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B.S., University of Iowa

**Foley, Jean**

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M.S., North Park University

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M.S., DePaul University

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M.S.Ed, Indiana University, Bloomington

**Gehrke, Joseph**

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B.S.Ed., Illinois State University  
M.S.Ed., Northern Illinois University

**George, Edwin**

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B.A., Missouri State University  
M.A., University of Hawaii, Manoa

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M.Ed., Loyola University, Chicago  
Ed.D., National Louis University  
Certificate, Drexel University

**Gollapudi, Lakshmi**

Biology  
B.S., University of Delhi, India  
M.S., University of Bombay, India  
Ph.D., Rosalind Franklin University

**Gonder, Patrick**

English/Humanities  
B.A., University of Missouri,  
Columbia  
M.A., University of Missouri, Columbia  
Ph.D., University of Wisconsin, Milwaukee

**Gonzalez, Jorge**

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B.A.S., Westwood College of Technology

**Goode, Victoria**

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**Gordon, Gregory**

History  
B.S., Illinois State University  
M.S., Illinois State University  
M.A., Northwestern University

**Gorman, Daniel**

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B.A., Lake Forest College  
M.A.T., University of Illinois, Chicago

**Gorski, Anita**

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A.A., City Colleges of Chicago,  
Wilbur Wright  
B.A., Concordia University  
M.Ed., University of Illinois,  
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**Gossmann, Anni**

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B.S., Loyola University, Chicago  
M.S., University of Wisconsin, Milwaukee

**Gotsch, Kenneth**

Vice President, Administrative Affairs  
B.S., Marquette University  
M.A., University of Chicago

**Grace, Michelle**

Director, Health Services  
B.S.N., Northwestern University

**Grampo, Kevin**

Deputy Chief  
B.S., Western Illinois University

**Groeninger, David**

History  
B.A., Northern Illinois University  
M.A., Concordia University, Montreal, Quebec,  
Canada  
Ph.D., Loyola University, Chicago

**Groeninger, Sandra**

Director, Children's Learning Centers  
B.A., Northern Illinois University  
M.S., Northern Illinois University

**Guenther, Thomas**

Chief of Police  
B.S., Southern Illinois University, Carbondale  
M.A., Lewis University

**Guiney, Julia**

Executive Director, Human Resources  
M.B.A., Northern Illinois University

**Guzman, Marisol**

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A.A., College of Lake County  
B.A., Eastern Illinois University

**Haasch, Debara**

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A.S., Purdue University  
B.S.N., Marquette University  
M.S., Concordia University

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B.F.A., University of Wisconsin, Oshkosh  
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**Halsey, Floyd**

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B.S., Southern Illinois University, Carbondale  
M.S.Ed., Southern Illinois University, Carbondale

**Hamilton, Susan**

Lead Software Developer  
B.S., Illinois State University

**Haney, Rich**

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M.Ed., University of Illinois,  
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Ed.D., University of Illinois,  
Urbana-Champaign

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Chief of Staff  
M.P.A., University of Akron

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B.S.N., University of Michigan,  
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M.S., Northeastern Illinois University

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## Full Time Faculty, Professional, Specialist and Administrative Staff

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**Hobart, Laura**

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Ph.D., University of Illinois, Chicago

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M.A.T., SUNY College, Cortland

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M.A., University of Illinois, Chicago  
M.A., University of Illinois, Chicago

**Hopkins, Leslie**

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B.A., MacMurray College  
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**Hoy, Tracey**

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The College of Lake County welcomes students from diverse educational backgrounds and provides a wide range of learning opportunities. An individual will be admitted to the college by completing and submitting the ***Student Admission Form***. Applicants planning to take college-level courses must demonstrate college-level proficiency in English language and basic algebra readiness. Following admission, the Office of Admissions will assess incoming students for Reading and Writing Readiness and Basic Algebra Readiness. Additional requirements apply to the following students:

- **International Students** must meet additional requirements and should contact the International Student Specialist at (847) 543-2733.
- **Students under age 18 or who are currently attending high school** must submit the ***Secondary School Reference Form*** in addition to the ***Student Admission Form***.
- **Transfer students** seeking a CLC degree must submit a ***Request for Evaluation of College Transcript Form*** and official transcript(s) from prior college(s).

All forms including the Student Admission Form are available online at [www.clcillinois.edu/apply](http://www.clcillinois.edu/apply).

Admission to the college, however, does not ensure entrance into all programs of study or courses. Specific programs may have admission criteria which may include, but are not limited to, age, evidence of language and mathematics skills and level of education. The college reserves the right to limit enrollment because of space or budget restrictions, to establish selective admission requirements, and to give preference to residents of Community College District #532.

### Prerequisites

There are several types of prerequisites that may apply to courses, and these must be met prior to enrolling. Students who attempt to enroll without having met a prerequisite will see an error message “Requisites not met,” and should check the course description for more information.

**Academic Proficiency Prerequisites** in English and basic algebra are required to take many college classes. There are a number of ways for students to demonstrate they are proficient and these are described below under Academic Proficiency.

**Placement Test Prerequisites** are used to determine a student’s appropriate beginning course level for math, computer information technology, administrative office systems, English as a Second Language and adult basic education. Tests are available free of charge at the Testing Center. Call (847) 543-2076 for details.

**Course Prerequisites** are required when the student should have specific knowledge or skills in order to benefit from the course. **Course Corequisites** are required when the student should be enrolled in multiple courses at the same time (unless the corequisite was completed in a prior term).

### Official Transcripts

An official transcript is one that is sent directly from a prior institution to the Records Office. If your name has changed, please request that your new name is on the transcript.

*Proficiencies are listed on next page.*

## Admission Requirements

*See addendum for corrections to this section.*

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### Academic Proficiency Prerequisites

College Reading and Writing Readiness and Basic Algebra Readiness requirements are assessed by the Office of Admissions.

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#### College Reading and Writing Readiness

Incoming students will be assessed for English language proficiency as demonstrated by meeting any one of the following:

- a. High school transcript showing top one-third rank in class after six semesters.
- b. CLC Academic Proficiency Test, Language Skills: Score of 153 or above.
- c. American College Test (ACT), Reading: Score of 17 or above, and English: Score of 17 or above.
- d. Scholastic Aptitude Test (SAT), Evidence-Based Reading and Writing Score of 470 or above (prior to March 1, 2016 Critical Reading Score of 450 or above; March 1, 2015 Verbal Score of 450 or above).
- e. General Educational Development (GED) 2014: CLC Academic Proficiency Test or COMPASS ELI required. GED (prior to 2014) transcript, Reading and Writing Skills: Score of 550 or above.
- f. Test of English as a Foreign Language (TOEFL), Computer-based test: Score of 197 or above, Paper-based test: Score of 527 or above, or Internet-based score of 71 or above.
- g. International English Language Testing System (IELTS) Academic Format: score of 6.0 or above.
- h. Evidence of an associate or higher degree from a regionally accredited, degree-granting U.S. college or university.
- i. Transcript from a regionally accredited, degree-granting U.S. college or university listing at least 30 semester hours of credit with no grade below C.
- j. Transcript from a regionally accredited, degree-granting U.S. college or university listing credit equivalent to ENG 108 with a grade of A or credit equivalent to ENG 109 with a grade of C or better.
- k. Successful completion of CLC ENG 108 with a grade of A or ENG 109 with a grade of C or higher.
- l. Successful completion of both CLC ELI 103 AND 104 with a grade of A; or ELI 110 with a grade of C or higher.
- m. Successful completion of CLC ELI 108 with a grade of A, or ELI 109 with a grade of C or higher.
- n. COMPASS ELI score of 278 or better.
- o. Partnership for Assessment of Readiness for College and Careers (PARCC) ELA III score of 5.
- p. ELS Language Centers and ELS Educational Services, Academic Report: completing Level 112.

#### Basic Algebra Readiness

Incoming students will be assessed for Basic Algebra Readiness as demonstrated by meeting any one of the following:

- a. High school transcript showing top one-third rank in class after six semesters.
- b. CLC Math Placement Test, arithmetic section, Math: Score of 56 or above.
- c. American College Test (ACT), Math: Score of 17 or above.
- d. Scholastic Aptitude Test (SAT), Math Score of 490 or above for test taken March, 2016 or later; score of 450 or above for test taken before March, 2016.
- e. General Educational Development (GED) transcript, Mathematics: Score of 145 or above for test taken January 1, 2014 or later; score of 550 or above for test taken before January 2014.
- f. Test Assessing Secondary Completion (TASC) transcript, Mathematics content area score of 500 or above.
- g. High School Equivalency Test (HiSET) transcript, Mathematics subtest score of 8 or above.
- h. Evidence of an associate or higher degree from a regionally accredited, degree-granting U.S. college or university.
- i. Transcript from a regionally accredited, degree-granting U.S. college or university listing credit equivalent to MTH 101 (with a grade of C or better) or higher level courses at CLC
- j. Completion of either CLC MTH 101 or MTH 114 with a grade of C or better.

Basic Algebra Readiness **does not** meet the prerequisite for college-level math courses. Please refer to math course descriptions for complete requirements.

Apply to CLC online at [www.elcillinois.edu/apply](http://www.elcillinois.edu/apply)

## Entrance Requirements for Developmental Courses

### English

Students scoring below an 80 on the Academic Proficiency Test will be **REQUIRED** to see a counselor before registering for classes and may not be eligible to register for developmental English courses. Students may be eligible to register for courses that do not require language proficiency but will need to see a counselor prior to registration.

### Mathematics

Students scoring below a 34 on the arithmetic portion of the Math Placement Test will be **REQUIRED** to see a counselor before registering for classes and may not be eligible to register for developmental math courses. Students may be eligible to register for courses that do not require Basic Algebra Readiness but will need to see a counselor prior to registration.

### Retest Options

Students scoring below the minimum proficiency scores may be eligible to retest in an effort to demonstrate math or language ability. Students should see a counselor for a detailed explanation of retest options.

## Residence Status

Students are classified at the time of admission to the college for purposes of tuition assessment and enrollment reporting according to resident status as listed below:

### In-District Illinois Resident Student:

1. A student who is 18 years of age or older and who has lived in Community College District #532 in some capacity other than as a student at a post-secondary education institution or a correctional institution for at least thirty (30) days prior to the first day of the semester of enrollment at CLC.
2. An unemancipated student under 18 who has at least one parent, step-parent or court-appointed guardian who meets the above criteria.
3. There are some communities within Lake County that CLC only serves a portion of its residents. If you reside on a community college border, your property tax bill or voter registration card will identify your community college.

### Out-of-District Illinois Resident Student:

1. A person who resides in Illinois but is not a resident of Community College District #532 as defined above.
2. Includes residents of the Barrington, Illinois public high school district.

### Out-of-State Student:

1. A person who is not a resident of the state of Illinois.
2. International students and other non-immigrant aliens.

### Proof of Illinois Resident Status:

Evidence of district residency shall be based on ownership and/or occupancy of a dwelling in Community College District #532 and may be verified by displaying one of the following:

- Illinois driver's license or ID card issued by Illinois Secretary of State Office
- an Illinois voter ID card

OR

By displaying two of the following, which must display the student's name and current address:

- lease
- mortgage or home purchase contract
- auto registration
- tax bill
- paycheck stub
- official mail of current bill statements such as cell phone, utility, credit card, auto insurance

## Contact Information

**Main number: (847) 543-2000**

**19351 West Washington Street - Grayslake, Illinois 60030-1198**

Questions regarding any specific aspect of CLC programs should be referred to the office most directly responsible. All written correspondence should be sent to the college at 19351 W. Washington St., Grayslake, IL 60030-1198. Telephone inquiries should go to the number listed with each office.

<b>Questions on:</b>	<b>Call:</b>	<b>Office Location</b>
Accommodations for Students with Disabilities .....	(847) 543-2055 .....	B171
Admissions .....	(847) 543-2061 .....	B114
Adult Education .....	(847) 543-2021 .....	Building 4
Advisement .....	(847) 543-2067 .....	A124
Athletics and Physical Activities .....	(847) 543-2046 .....	Building 7
Biological and Health Sciences division .....	(847) 543-2042 .....	B213
Bookstore .....	(847) 543-2086 .....	B131
Business and Social Sciences division .....	(847) 543-2047 .....	T302
Career and Placement .....	(847) 543-2059 .....	B118
Career Programs.....	(847) 543-2422 .....	A213
Chargebacks and Joint Educational Agreements .....	(847) 543-2061 .....	B114
Coaching for Academic Success .....	(847) 543-2763 .....	L123
Communication Arts, Humanities and Fine Arts division.....	(847) 543-2040 .....	B213
Center for Personal Enrichment.....	(847) 543-2022 .....	T317
Cooperative Education .....	(847) 543-2058 .....	B118
Counseling .....	(847) 543-2060 .....	A124
Educational Guarantees .....	(847) 543-2060 .....	A124
Engineering, Mathematics and Physical Sciences division.....	(847) 543-2044 .....	T302
Extension Services .....	(847) 543-2653 .....	Building 4
Financial Aid .....	(847) 543-2062 .....	B114
Health Center .....	(847) 543-2064 .....	E127
Human Resources .....	(847) 543-2065 .....	T102
International Education .....	(847) 543-2047 .....	T302
International Students .....	(847) 543-2733 .....	B172
Library (Murphy Library) .....	(847) 543-2070 .....	Library
Nursing Education .....	(847) 543-2043 .....	D208
Public Relations and Marketing.....	(847) 543-2094 .....	L112
Records and Registration .....	(847) 543-2061 .....	B114
Student Activities .....	(847) 543-2280 .....	B106
Testing Center .....	(847) 543-2076 .....	B150
Title IX .....	(847) 543-2288 .....	B106B
Tuition Payment.....	(847) 543-2085 .....	B114
Tutoring Center .....	(847) 543-2072 .....	L131
Veteran's Information.....	(847) 543-2018 .....	B113
Welcome and One Stop Center .....	(847) 543-2000 .....	B114
Workforce and Professional Development Institute .....	(847) 543-2615 .....	University Center 302

### Other Locations:

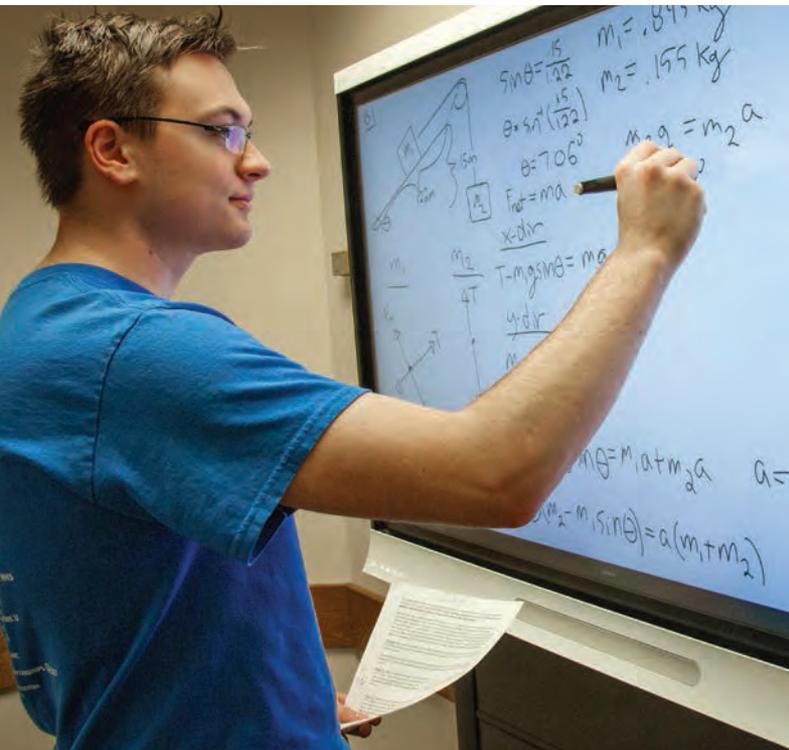
Great Lakes Center.....	(847) 689-0199 .....	Building 619, Room 209, Great Lakes, IL 60088
Lakeshore Campus .....	(847) 543-2191 .....	33 N. Genesee St., Waukegan, IL 60085
Southlake Campus .....	(847) 543-6501 .....	1120 S. Milwaukee Ave., Vernon Hills, IL 60061

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## Cancellation of Classes

**Check the CLC website: [www.clcillinois.edu](http://www.clcillinois.edu)**

Announcements of day class cancellations will begin by 6 a.m. Announcements of evening class (those beginning 4 p.m. or later) cancellations will begin by 3 p.m. An automated message will be placed on the telephone system during hours when the switchboard is closed. ***In any case, use your good judgment!***



## New Courses

### ARM 222 Manufacturing Process Design (2-2) 3 Hours (Effective Spring 2018)

This course covers process management and design in the field of manufacturing and mechatronics. The primary emphasis is process design, with an emphasis on manufacturing constraints. Topics include cycle time, production time, barrier identification, first pass yield, quality, benchmarking, cost analysis, continuous improvement and training in working effectively in team environment. A critical component of this class is one or more realistic factory simulations where students are assigned a role in a design project team and are given a timeline, a budget, a "customer" and other manufacturing parameters. After completing the project, students present their results and learning outcomes. (1.2)

*Prerequisite:* ARM 198 (C or better) AND MTH 117 (C or better) or appropriate score on the math placement test or Math ACT of 28 or higher or Math SAT of 640 or higher.

*Course fee*

### ARM 242 Reverse Engineering of Mechanical Systems (2-2) 3 Hours (Effective Spring 2018)

This course is a study of the design of mechanical components in complex mechatronics systems. It covers an overview of statics, dynamics, and design of machine elements. Topics include force system analysis; study of equilibrium, translation, and rotation; friction; and stress, strain, and wear analysis. It also covers reverse engineering and the design of machine elements in mechanical systems. (1.2)

*Prerequisite:* ARM 153 (C or better) AND MTH 117 (C or better) or appropriate score on the math placement test or Math ACT of 28 or higher or Math SAT of 640 or higher.

*Course fee*

### ARM 288 Process Control Technologies (2-2) 3 Hours (Effective Spring 2018)

This course covers topics in closed-loop control and technologies used in process control in the context of a complex mechatronic system. Students will be trained to characterize a system by its step response function and to create and interpret charts with diagrams for time-based changes of measured values. Students will learn how to establish controller operating parameters and learn the difference between the types of controllers that are typically used in mechatronic process control systems. This course is one of the courses required for the Siemens Level 2 certification in mechatronics. (1.2)

*Prerequisite:* ARM 196 (C or better) and ARM 197 (C or better) and ARM 198 (C or better) and ARM 266 (C or better).

*Course fee*

### BRGA 60 Reading Improvement Early Childhood Education Bridge (Variable) 0.5-6 Hours (Effective Summer 2017)

This course will prepare students for a career pathway in early childhood education. It will introduce them to important concepts in the early childhood education field. It will focus on critical reading skills necessary to the literature in the field of early childhood education.

Must have a 6.0 or higher on the Test of Adult Basic Education (TABE) Level D and Department Consent. (1.7)

*Corequisite:* Must be enrolled in or previously enrolled in ESL 52, 53, 60, 61 or ABE 38.

*Course fee*

*May be taken four times for credit toward degree*

### BRGA 61 Writing Improvement for Early Childhood Education Bridge (Variable) 0.5-6 Hours (Effective Summer 2017)

This course will prepare students for a career pathway in Early Childhood Education. It will focus on the writing skills necessary to be successful in later early childhood education college coursework. Must have 6.0 or higher on Test of Adult Basic Education (TABE) Level D or Department Consent. (1.7)

*Corequisite:* Must be enrolled in or previously enrolled in ESL 52, 53, 60, 61 or ABE 38.

*Course fee*

*May be taken four times for credit toward degree*

### EWE 120 Job Readiness Skills (1-0) 1 Hour (Effective Spring 2018, Pending ICCB Approval)

This course focuses on job readiness skills to prepare students to apply for an internship/job, improve in a current internship/job, or successfully work towards a promotion. Topics covered include networking, resume writing, interviewing, social media tools, self-awareness, conflict resolution and time management. (1.2)

## Course Modifications

### Courses Approved by ICCB

- ARM 226 Programmable Automation Technologies
- ARM 266 Advanced Motor Control
- ARM 286 Automation Pyramid
- RMC 111 Human Relations in Business
- RMC 112 Computer Basics/Software Applications
- RMC 113 Human Resource Management
- RMC 115 Elements of Supervision
- RMC 117 Introduction to Marketing Concepts
- RMC 119 Introduction to Financial Concepts
- RMC 234 Principles of Retailing
- RMC 237 Managerial Communication
- SCM 110 Introduction to Supply Chain Management
- SCM 115 Sourcing and Procurement
- SCM 120 Inventory Management and Planning
- SCM 125 Warehousing and Distribution
- SCM 130 Logistics and Transportation
- SCM 150 Supply Chain Management Internship
- SCM 215 Operations Management

**BUS 113 Human Resource Management (3-0) 3 Hours***(Description Change Effective Fall 2017)*

This course provides a broad overview of relevant human resource management concepts, incorporating legal and ethical issues. Topics include staffing, hiring, training and development, performance evaluation, employee terminations, compensation and benefits, union versus non-union workforces, and workforce diversity issues.

BUS 113 and RMC 113 are cross-listed. (1.2)

*Prerequisite:* College Reading and Writing Readiness

**ELC 215 Power Transmission & Distribution***(Course Withdrawn Effective Spring 2018)***ELT 116 Technical Programming***(Course Withdrawn Effective Spring 2018)***ELT 118 Industrial Digital Electronics II***(Course Withdrawn Effective Spring 2018)***ELT 171 Industrial Control Systems***(Course Withdrawn Effective Spring 2018)***ELT 173 Applied Analog Circuits***(Course Withdrawn Effective Spring 2018)***ELT 214 Microwave Systems and Measurements***(Course Withdrawn Effective Spring 2018)***ELT 271 Circuit Analysis Computer Techniques***(Course Withdrawn Effective Spring 2018)***ELT 272 Circuit Analysis Techniques***(Course Withdrawn Effective Spring 2018)***EWE 220 Internship I (Variable) .5-3 Hours***(Title, Credit Hours, Description, Prerequisite, PCS Code Change Effective Spring 2018, Pending ICCB Approval)*

An internship offers an individualized learning experience through the linking of an academic program to a structured employment setting. The learning outcomes for the internship are coordinated and agreed upon by the student, faculty, and employer. Course assignments throughout the term support these learning outcomes, and assist in academic, career, and professional preparedness. This is a variable credit course (.5-3 credits), with 75 internship hours required per credit. (1.2)

**EWE 270 Internship II (Variable) .5-3 Hours***(Title, Credit Hours, Description, Prerequisite, Pending ICCB Approval)*

This course is intended for students completing a second internship experience. An internship offers an individualized learning experience through the linking of an academic program to a structured employment setting. The learning outcomes for the internship are coordinated and agreed upon by the student, faculty, and employer. Students will produce a critical reflection on their internship experience demonstrating how they have addressed specific learning outcomes. This is a variable credit course (.5-3 credits), with 75 internship hours required per credit. (1.2)

**HWP 260 Sport and Exercise Nutrition (3-0) 3 Hours***(PCS Code Change Effective Fall 2017)*

This course will introduce students to the relationship between fundamental nutrition principles and sport and exercise science. The efficacy of performance-based dietary supplements and related ethical issues will also be explored. (1.1)

*Prerequisite:* College Reading and Writing Readiness

*Recommended:* HCM 175 (C or better)

**PED 271 Exercise Physiology (3-0) 3 Hours***(PCS Code Change Effective Spring 2018)*

This course will explore the study of human function as it relates to responses and adaptations resulting from physical activity and exercise. Systemic interactions and cellular changes during and after activity will be examined. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**PHI 129 Philosophy of Gender and Sexuality (3-0) 3 Hours***(Title and Description Change Effective Fall 2017)*

This course provides an interdisciplinary introduction to the ways in which gender and sexuality have been reflected in philosophy, literature, history, music, and art. The course explores issues related to cisgender/nonbinary/transgender and queer identity in relation to race, sexuality, class, and nationality. Both classical and contemporary philosophers will be studied. (1.1)

*Prerequisite:* College Reading and Writing Readiness

**PSY 220 Lifespan Development (3-0) 3 Hours***(Description Change Effective Fall 2017)*

This course integrates theory and research as they relate to neurobiological, cognitive, social and emotional development of individuals in cultural context from conception throughout adulthood. The course emphasizes both normal and atypical developmental stages and patterns of adjustment to differing life-time demands. Students will gain an understanding of hereditary and environmental factors on development; prenatal development and the birth process; physical development; language and cognitive development; family relationships; friend and peer relations; school, college, and career experiences; identity; gender; sexuality and health; the aging process and death and dying; as well as the research methods psychologists use to study development. (1.1)

*Prerequisite:* PSY 121 (C or better)

IAI: S6 902

**SCM 110 Introduction to Supply Chain Management (3-0) 3 Hours***(Prerequisite Change Effective Fall 2017)*

This course introduces the basics of end-to-end Supply Chain Management (SCM) that are necessary in achieving market and financial value to the company. Students will explore the basic fundamentals of SCM including planning, sourcing, inventory management, warehousing, distribution, logistics and transportation focusing on the role of the front line worker and how their function relates to the business in the service, retail, distribution and manufacturing industries. (1.2)

*Corequisite:* BUS 121

## Program Modifications

### Approved Programs

Supply Chain Management (Associate in Applied Science)  
Plan 22BO

*(Program Approved by ICCB/IBHE)*

Introduction to Supply Chain Management (Certificate)  
Plan 22BP

*(Program Approved by ICCB)*

Advanced Supply Chain Management (Certificate)  
Plan 22BQ

*(Program Approved by ICCB)*

### Inactive Programs

Architectural Technology (Associate in Applied Science)  
Plan 24CB

*(Program Inactive for New Enrollment Effective Fall 2017)*

Architectural Technology (Certificate) Plan 24CF

*(Program Inactive for New Enrollment Effective Fall 2017)*

CAD Drafting Technology - Architectural/Civil (Associate  
in Applied Science) Plan 24DR

*(Program Inactive for New Enrollment Effective Spring 2018)*

## Corrections

### Page 13

#### Admission to Limited Enrollment Health Career Programs

Health career programs are open to a limited number of students.

Computed Tomography, Dental Hygiene, Health Information Technology, Magnetic Resonance Imaging, Medical Imaging, Registered Nursing and Surgical Technology students must complete a special screening procedure. **Preference will be given to residents of Community College District 532 and community college districts with which CLC has a cooperative agreement. Students who live outside of CLC's district but are eligible for in-district tuition because they are employed by a district employer are NOT considered residents of the district for purposes of selection into the program.**

Please see the section on Associate in Applied Science Programs of Study on pages 121-226 of this catalog for further information including selective admission requirements.

### Page 22

#### Financial Aid At-a-Glance

Federal student aid is defined as financial assistance, is offered through the U.S. Department of Education and is available to those students enrolled in an eligible program at a school participating in federal student aid programs. School expenses such as tuition and fees, room and board, books, supplies and transportation are covered by federal student aid. Most federal aid is need-based. The three most common types of aid are grants, loans and federal work-study.

College of Lake County currently participates in the following Federal programs:

- Department of Defense Tuition Assistance
- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal Work Study Program (FWS)
- William D. Ford Federal Direct Loan (Direct Loan) Program
- Veterans Educational Benefits\*

\*Students utilizing federal veterans educational benefits are not subject to the financial aid department's Satisfactory Academic Progress (SAP) standards.

**Page 23****Student Aid from the State of Illinois**

The Illinois Student Assistance Commission (ISAC) provides financial aid for college education through the many gift assistance programs it administers. As an approved participant in any of the gift assistance programs administered by ISAC, postsecondary institutions may receive funds on behalf of eligible students.

Some specialized Illinois programs have separate applications. Detailed information about Illinois programs is available at [www.isac.org](http://www.isac.org). Illinois offers various financial aid programs based on merit, need and/or course of study. Many Illinois programs also require students to complete the FAFSA form.

College of Lake County currently participates in the following State programs:

- Monetary Award Program (MAP)
- Grant Programs for Dependents of Police/Fire/Correctional Officers
- Minority Teachers of Illinois (MIT) Scholarship Program
- Illinois Veterans Grant (IVG) \*
- Illinois National Guard (ING) Grant \*
- MIA/POW Scholarship \*

\* Students utilizing state veterans educational benefits are only subject to the GPA standard under the financial aid department's satisfactory academic progress (SAP) policy.

**Page 28**

**Academic advisors and counselors are available at the Grayslake Campus:**

**Counseling, Advising and Transfer Center**  
19351 W. Washington St., Grayslake, IL 60030  
Room A124

Monday through Thursday      7:30 a.m. to 7:30 p.m.  
Last student seen at 7 p.m.

Friday                                      7:30 a.m. to 4:30 p.m.\*  
Last student seen at 4 p.m.

Call (847) 543-2060 to schedule an appointment.

\* Holiday and break hours may vary.

**Page 31****Internships**

Internships offer students the opportunity to gain valuable workplace skills and earn possible college credit for new learning in a work situation while integrating classroom theory with practical work experience. A new position or your current job may qualify as an Internship position if it is related to your field of study.

Internships for credit, or Educational Work Experience Internships, require students to enroll in **EWE 120**. This 1-credit course involves attending a series of seminars on work related topics including the following:

- Resume writing
- Interviewing skills
- Job search techniques and issues
- **Conflict resolution**
- **Personal self-awareness**
- **Time management/establishing priorities**
- **Social media tools for job searching**

**Page 32****Prerequisites for EWE may include:**

- At least 9 credit hours earned in the student's current major
- 2.25 GPA
- Approval to enroll from CLC faculty sponsor

For more information, call (847) 543-2059.

**Page 53***International/Multicultural Education Courses***IAI APPROVED****Humanities and Fine Arts**

ARA 222	HUM 121, 122, 126, 128, 129, 140, 141, 221, 226
ART 240, 241, 261	ITL 222
CHI 222	JPN 222
DNC 240	PHI 125, 126, 221
ENG 129, 228, 244, 246, 247	RUS 222
FRN 222	SPA 222, 223, 224
GER 222	THE 123

**Social Sciences**

ANT 121, 221, 228	PSC 221, 222
GXS 121, 229	SOC 225, 229
HST 126, 127, <del>128</del> , 245, 246	

*International/Multicultural Education Courses***NOT IAI APPROVED****Humanities and Fine Arts**

ASI 121	HUS 153
CMM 127	LAT 121
ENG 263, 264	PHI 128, 129

**Personal Development**

PDS 123

**Social Sciences**

ECO 225	HST <del>128</del> , 269
EDU 224	PSY 229
GXS 221, 299	SSI 121

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For more information on recommended courses or program specific advising, contact faculty member Joana Pabedinskas at (847) 543-2029 or the Biological and Health Sciences Division at (847) 543-2042.

**Page 110**

For more information on recommended courses or program specific advising, contact faculty member Joana Pabedinskas at (847) 543-2029 or the Biological and Health Sciences Division at (847) 543-2042.

## Pages 123-124

**Accounting**

Accounting A.A.S.  
Accounting Clerk Certificate  
Professional Accounting Certificate

**Administrative Office Systems**

Administrative Assistant Certificate  
Administrative Leadership Certificate  
Administrative Professional A.A.S.  
General Office Certificate  
Office Professional Certificate

**Architectural Technology**

~~Architectural Technology A.A.S. and Certificate~~

**Automotive Collision Repair**

Automotive Collision Repair A.A.S. and Certificate  
Automotive Collision Repair Assistant Certificate  
Automotive Damage Analysis Certificate  
Automotive Refinishing Technician Certificate  
Automotive Structural Repair Technician Certificate

**Automotive Technology**

Automotive Air Conditioning and Heating Specialist Certificate  
Automotive Brakes and Suspension Specialist Certificate  
Automotive Electrical Specialist Certificate  
Automotive Fuel Systems Specialist Certificate  
Automotive Oil Change Specialist Certificate  
Automotive Service Specialist Certificate  
Automotive Technician A.A.S. and Certificate  
Automotive Transmission Specialist Certificate  
Transmission Technician Certificate

**Business Administration**

Business Administration A.A.S.  
Entrepreneurship/ Small Business Management A.A.S. and Certificate  
Management A.A.S.  
Marketing A.A.S. and Certificate  
Retail Management Certificate  
Supervision Certificate

**CAD Drafting Technology**

3D Parametric Certificate  
Architectural Certificate  
~~Architectural/Civil A.A.S.~~  
AutoCAD Certificate  
Autodesk Inventor Certificate  
Civil Certificate  
Creo Certificate  
Graphics, Animation and Presentation A.A.S. and Certificate  
Mechanical A.A.S.  
SolidWorks Certificate

**Computer Information Technology**

C++ Programming Certificate  
Cisco Networking Certificate  
Computer Forensics A.A.S.  
Computer Forensics Analyst Certificate  
Desktop Support Technician Certificate  
(also listed under EET)  
Game Development Certificate  
.NET Programming A.A.S. and Certificate  
Network Administration and Security A.A.S. and Certificate  
Office Application Specialist A.A.S. and Certificate  
Security Administration Certificate  
Web Programming A.A.S. and Certificate

**CNC Programming**

**NIMS Level 1 CNC Operator/Setup Technician** Certificate  
CNC Programming A.A.S.  
CNC Programming/Operations Certificate  
NIMS Level 1 **CNC Operator** Certificate

**Criminal Justice**

Criminal Justice A.A.S. and Certificate

**Dance**

Yoga Teacher Certificate

**Dental Hygiene**

Dental Hygiene A.A.S.

**Digital Media and Design**

Digital A/V Production and Editing A.A.S.  
Digital Media and Design A.A.S.  
Multimedia Communications Certificate  
Multimedia Presentations Certificate

**Early Childhood Education**

Administration and Leadership in ECE Certificate  
Early Childhood Education A.A.S.  
Early Childhood Level II Certificate  
Early Childhood Level III Certificate  
Infant/Toddler Level II Certificate  
Infant/Toddler Level III Certificate

**Electrician Apprenticeship**

Electrician Apprenticeship A.A.S.

**Electrical Engineering Technology**

Electrical Engineering Technology A.A.S.  
Electrical/Electronics Maintenance Certificate  
Electronics Technology Certificate  
Fiber Optics Technician Certificate  
Wireless Networking Security Certificate

Continued on next page.

**Emergency Medical Technology**

Emergency Medical Technician Basic Certificate  
 Emergency Medical Technician Paramedic Certificate  
 Emergency Medical Technology A.A.S.

**Fire Science Technology**

Fire Science Technology A.A.S.  
 Firefighter Basic Operations A.A.S.

**Health and Wellness Promotion**

Health and Wellness Promotion A.A.S.  
 Personal Training Certificate  
 Wellness Coaching Certificate

**Health Information Technology**

Health Information Technology A.A.S.  
 Medical Billing Specialist Certificate

**Heating and Air Conditioning (HVAC)****Engineering Technology**

Commercial Refrigeration Technician Certificate  
 Electrical Troubleshooting Technician Certificate  
 HVAC/R Engineering Technology A.A.S.  
 HVAC/R Installation Technician Certificate  
 HVAC/R Service Technician Certificate  
 Residential Air Conditioning Technician Certificate  
 Residential Energy Auditing Certificate  
 Residential Heating Technician Certificate

**Horticulture**

Arboriculture Certificate  
 Horticulture Production A.A.S.  
 Landscape Construction and Maintenance A.A.S.  
 Landscape Design A.A.S. and Certificate  
 Landscape Maintenance Certificate  
 Natural Areas Management A.A.S. and Certificate  
 Sustainable Agriculture A.A.S. and Certificate

**Hospitality and Culinary Management**

Baking and Pastry Arts A.A.S.  
 Baking and Pastry Assistant Certificate  
 Hospitality and Culinary Management A.A.S.  
 Hospitality Manager Certificate  
 Hospitality Supervisor Certificate  
 Pastry Chef Assistant Certificate  
 Professional Chef Certificate  
 Professional Cook Certificate

**Human Services Program**

Accelerated Addiction Counseling and Treatment Certificate  
 Addiction Counseling and Treatment A.A.S. and Certificate  
 Adult Services A.A.S.  
 Children and Adolescents A.A.S.  
 Correctional Counseling A.A.S. and Certificate  
 General Human Services Program Certificate  
 Trauma Interventions and Prevention A.A.S. and Certificate

**Laser/Photonics/Optics**

Applied Lasers Certificate  
 Biophotonics Certificate  
 Laser/Photonics/Optics Certificate  
 Optics and Photonics Technology A.A.S.

**Machine Tool Trades**

Basic Machining Certificate  
 Machine Tool Trades A.A.S. and Certificate  
 Tool and Mold Maker Certificate

**Massage Therapy**

Massage Therapy Certificate

**Mechanical Engineering Technology**

Mechanical Engineering Technology A.A.S.  
 Mechanical Engineering Technology Design Certificates  
 MET I: Toolbox Certificate  
 MET II: Nuts and Bolts Certificate  
 MET III: Mechatronics Certificate  
 MET IV: Design and Innovation Certificate  
 Mechanical Service Technician I and II Certificates

**Mechatronics Technology**

Mechatronics Technology Certificate

**Medical Assisting**

Healthcare Office Assistant Certificate  
 Medical Assisting A.A.S. and Certificate

**Medical Imaging**

Computed Tomography Certificate  
 Magnetic Resonance Imaging Certificate  
 Medical Imaging A.A.S.

**Nursing**

Certified Nurse Assisting Certificate  
 Nursing A.A.S.

**Paralegal Studies**

Paralegal Studies A.A.S. and Certificate

**Phlebotomy Technician**

Phlebotomy Technician Certificate

**Supply Chain Management**

Supply Chain Management A.A.S.  
 Introduction to Supply Chain Management Certificate  
 Advance Supply Chain Management Certificate

**Surgical Technology**

Surgical Technology A.A.S. and Certificate

**Sustainable Programs**

Alternative Energy Technologies Certificate

**Teaching English to Speakers of Other Languages**

Teaching English as a Foreign Language Certificate  
 TEL Certificate  
 TESOL Certificate

**Technical Communication**

Professional Technical Communication Certificate  
 Technical Communication A.A.S. and Certificate

**Welding**

Gas Metal Arc Welding Specialty Certificate  
 Gas Tungsten Arc Welding Specialty Certificate  
 Shielded Metal Arc Welding Specialty Certificate  
 Welding Certificate

**Page 151****Dental Hygiene**

**Biological and Health Sciences Division, Room B213,  
(847) 543-2042**

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**Dental Hygiene  
(Associate in Applied Science) Plan 21DH**


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This is a Limited Enrollment program. DHY courses are only offered during the day.

Students are required to meet the screening requirements in effect at the time of screening. Students who screen and are accepted into a limited enrollment program will be required to complete the curriculum that is in place at the time of entrance into the program. If students who screen are not granted admission, they must rescreen and satisfy all screening and curriculum requirements in place for a future program start.

**Screening Deadline: First Wednesday in February**

Dental hygienists are licensed professionals who provide oral health assessment, disease prevention, and health promotion. They are vital members of a dental health team. They serve individuals and families within the community. The Dental Hygiene program at the College of Lake County prepares students to develop the competencies needed to present extensive, preventive oral health care services to the community. The Dental Hygiene program has been granted accreditation status by the American Dental Association.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

The number of students that can be admitted to the Dental Hygiene program is limited; therefore, a screening procedure is used to select the academically best qualified from those who request consideration. **Preference is given to residents of CLC's district, or a community college district which does not offer a Dental Hygiene program and is a member of the CAREER consortium.** Students who live outside of CLC's district but are eligible for in-district tuition because they are employed by a district employer are NOT considered residents of the district for purposes of selection into the program. Attendance at a Program Information Session is required to apply to the program and to learn other specifics of the application process.

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**Health Information Technology  
(Associate in Applied Science) Plan 21HM**


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**Accreditation and Certification**

The Health Information Technology Program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). Graduates of the program are eligible to apply to write for the certification examination of the American Health Information Management Association for the designation RHIT (Registered Health Information Technician).

**Admission to the Program**

Many courses are available in the evening; however, to complete the degree some day-only classes are required.

Interested students may take HIT 111, 113, 115, 117, 119, 131, 132, 171, 215 and 271 prior to being admitted to the program; however, the number of students admitted to the Professional Practice Experience (HIT 212 and HIT 213) each year is limited. Therefore, a screening procedure is used to select the academically best qualified from those who request consideration. **Preference is given to residents of CLC's district, or a community college district which does not offer a Health Information Technology program and is a member of the CAREER consortium.** Students who live outside of CLC's district but are eligible for in-district tuition because they are employed by a district employer are NOT considered residents of the district for purposes of selection into the program. Students should seek admission to the Health Information Technology Program the year prior to enrolling in HIT 212. (e.g., If you expect to take HIT 212 in Fall 2019, apply by February 2018.) If you are accepted into the program and do not enroll in HIT 212 as scheduled, CLC will attempt to accommodate the schedule change but there is no guarantee you will be permitted to enroll in HIT 212 in subsequent years. Please review the admission requirements that are listed below.

**Page 178**

**Natural Areas Management  
(Certificate) Plan 21HQ**

<b>Fall Semester</b> .....	<b>7</b>
BIO 120 Environmental Biology .....	4
HRT 125 Tree and Shrub Identification .....	3
<b>Spring Semester</b> .....	<b>7-8</b>
ESC 126 Geology of Illinois <i>or</i>	
ESC 224 Environmental Geology .....	2-3
BIO 126 Local Flora .....	2
HRT 160 Business Issues in Horticulture <i>or</i>	
BUS 121 Introduction to Business .....	3
<b>Fall Semester</b> .....	<b>4</b>
HRT 286 Natural Areas Management .....	4
<b>Total Hours for Certificate</b> .....	<b>18-19</b>

Gainful Employment Information: [www.clcillinois.edu/gehrt](http://www.clcillinois.edu/gehrt)

**Page 187**

**Correctional Counseling  
(Certificate) Plan 25HJ**

<b>Required Human Services Coursework</b> .....	<b>9</b>
HUS 123 Introduction to Group Dynamics .....	3
HUS 128 Introduction to Counseling Skills .....	3
HUS 140 Drugs and Society .....	3
<b>Required Correctional Counseling Coursework</b> .....	<b>24-25</b>
CRJ 227 Community-Based Corrections .....	3
CRJ 121 Introduction to Criminal Justice.....	3
CRJ 214 Substance Abuse and Criminal Justice.....	3
++CRJ 270 Criminal Justice Assessment Seminar <i>or</i>	
* HUS 219 Human Services Internship .....	3-4
HUS 253 Advanced Addiction Counseling Skills .....	3
Correctional Counseling Electives (see below) .....	9

\* Note: HUS 274 Human Services Practicum Orientation is a prerequisite for HUS 219.

**Total Hours for Certificate** .....**33-34**

**Correctional Counseling Electives**

Select 9 hours from the list below:

CRJ 119 Principles of Direct Supervision .....	3
CRJ 123 Introduction to Criminology .....	3
CRJ 124 Introduction to Corrections .....	3
CRJ 221 Criminal Law.....	3
CRJ 224 Institutional Corrections .....	3
CRJ 229 Juvenile Delinquency .....	3
CRJ 230 Principles of Courtroom Testimony .....	3
CRJ 270 Criminal Justice Assessment .....	3
HUS 114 Human Services Supervision.....	3
HUS 152 Process Addictions/Impulse Disorders .....	2
HUS 154 Ethics in Human Services .....	1
HUS 157 Communicable Diseases and Substance Abuse .....	2
HUS 210 Principles of Residential Care .....	3
HUS 234 Child Maltreatment .....	3
HUS 251 Addiction Counseling and Treatment II .....	4
<del>    HUS 253 Advanced Addiction Counseling Skills.....</del>	<del>3</del>
HUS 274 Human Services Practicum Orientation .....	1
HUS 299 Special Topics in Human Services.....	1-3
PSC 122 State and Local Politics .....	3
PSY 223+ Abnormal Psychology <i>or</i>	
SOC 223 +Deviance .....	3

++ Students pursuing the Certified Criminal Justice Addictions Professional credential must take HUS 151, HUS 251, HUS 253 and CRJ 270. Note: there may be additional requirements by IAODAPCA to obtain this credential.

Gainful Employment Information: [www.clcillinois.edu/gehus](http://www.clcillinois.edu/gehus)

**Page 198****New cohorts begin in the fall and spring.**

Courses are offered in the fall (daytime) and spring (evening). Interested students may take HIT 111, HIT 119, MOA 115, PBT 110 and PBT 115 prior to taking MOA 111. **Preference is given to residents of CLC's district, or a community college district which does not offer a Medical Assisting program and is a member of the CAREER consortium.** Students who live outside of CLC's district but are eligible for in-district tuition because they are employed by a district employer are NOT considered residents of the district for purposes of selection into the program.

Students must earn a minimum grade of "C" in all MOA, HIT, PBT, and BIO courses listed below to continue in and graduate from any of the certificate or degree programs (including the Healthcare Office Assistant.) In addition, students must maintain a CLC GPA of 2.0 or higher.

Students should seek the advice of the MOA faculty for course scheduling every semester.

To complete an A.A.S., students must meet the General Requirements on page 121. In addition, students should select General Education electives (\*) from those listed on page 122. All course prerequisites must be met.

**Page 200****Medical Imaging**

**Biological and Health Sciences Division, Room B213,  
(847) 543-2042**

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**Medical Imaging  
(Associate in Applied Science) Plan 21MI**


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This is a limited enrollment program. MIM courses are predominantly offered during the day with the exception of MIM 110. Students are required to meet the screening requirements in effect at the time of screening. Students who screen and are accepted into a limited enrollment program will be required to complete the curriculum that is in place at the time of entrance into the program. If students who screen are not granted admission, they must rescreen and satisfy all screening and curriculum requirements in place for a future program start.

**Screening Deadline: First Wednesday in March**

The Medical Imaging Program prepares radiographers to work in medical facilities producing radiographic examinations which are interpreted by a radiologist or another medical specialist. Graduates of the program are qualified to take the national certification examination given by the American Registry of Radiologic Technologists. Graduates also meet the additional criteria required for Illinois licensure. The Medical Imaging program is nationally accredited by the Joint Review Committee on Education in Radiologic Technology: 20 North Wacker Drive, Suite 2850 Chicago, IL 60606-3182, (312) 704-5300, mail@jrcert.org.

Consistent with the Mission and goals of the College of Lake County, the Medical Imaging Program strives for excellence in preparing students for entry-level positions in the Medical Imaging profession. By maintaining high academic and clinical standards, graduates receive an Associate in Applied Science degree in Medical Imaging, become eligible for certification as Registered Radiologic Technologists, and attain clinical competency as entry-level professional radiographers.

Interested students may take MIM110 prior to being admitted to the program; however, the number of students that can be admitted to the MIM Program is limited. Therefore, a screening procedure is used to select the academically best qualified from those who request consideration. **Preference is given to residents of CLC's district, or a community college district which does not offer a Medical Imaging program and is a member of the CAREER consortium.** Students who live outside of CLC's district but are eligible for in-district tuition because they are employed by a district employer are NOT considered residents of the district for purposes of selection into the program.

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### Screening Deadlines

- **MRI** – The deadline is the first Wednesday in March of odd years. If space is available in the program after the initial screening deadline, qualified students will be accepted in an order based on academic qualifications. All required materials must be submitted to the Records Office by the screening deadlines.
- **CT** – The deadline is the first Wednesday in March of even years. If space is available in the program after the initial screening deadline, qualified students will be accepted in an order based on academic qualifications. All required materials must be submitted to the Records Office by the screening deadlines.

The number of students that can be admitted to any clinical education course is limited for any given session. Therefore, a screening procedure is used to select the academically best qualified from those who request consideration.

- **Preference is given to residents of CLC's district, or a community college district which does not offer a Medical Imaging program and is a member of the CAREER consortium.** Students who live outside of CLC's district but are eligible for in-district tuition because they are employed by a district employer are NOT considered residents of the district for purposes of selection into the program.
- Students who are selected for the program are required to undergo a background check and a urine drug screen. The results of the background check and drug screen may result in the student losing his/her seat in the program. The costs are borne by the student.
- Students must maintain a minimum grade of "C" in each Medical Imaging course to continue in and graduate from the MRI or CT program. In addition, students must maintain a CLC GPA of 2.0 or higher.

For more information on recommended courses or program specific advising, contact faculty member Lynn Wiechert or the Biological and Health Sciences division at (847) 543-2042.

## Academic Proficiency Prerequisites

College Reading and Writing Readiness and Basic Algebra Readiness requirements are assessed by the Office of Admissions.

### College Reading and Writing Readiness

Incoming students will be assessed for English language proficiency as demonstrated by meeting any one of the following:

- a. High school transcript showing top one-third rank in class on the final transcript (or current transcript after at least five semesters).
- b. CLC Academic Proficiency Test, Language Skills: Score of 153 or above.
- c. American College Test (ACT), Reading: Score of 17 or above, and English: Score of 17 or above.
- d. Scholastic Aptitude Test (SAT), Evidence-Based Reading and Writing Score of 470 or above (prior to March 1, 2016 Critical Reading Score of 450 or above; March 1, 2015 Verbal Score of 450 or above).
- e. General Educational Development (GED) 2014: CLC Academic Proficiency Test or **ELI ACCUPLACER** required. GED (prior to 2014) transcript, Reading and Writing Skills: Score of 550 or above. **Score of 165 or above for test taken January 1, 2014 or later.**
- f. Test of English as a Foreign Language (TOEFL), Computer-based test: Score of 197 or above, Paper-based test: Score of 527 or above, or Internet-based score of 71 or above.
- g. International English Language Testing System (IELTS) Academic Format: score of 6.0 or above.
- h. Evidence of an associate or higher degree from a regionally accredited, degree-granting U.S. college or university.
- i. Transcript from a regionally accredited, degree-granting U.S. college or university listing at least 30 semester hours of credit with no grade below C.
- j. Transcript from a regionally accredited, degree-granting U.S. college or university listing credit equivalent to ENG 108 with a grade of A or credit equivalent to ENG 109 with a grade of C or better.
- k. Successful completion of CLC ENG 108 with a grade of A or ENG 109 with a grade of C or higher.
- l. Successful completion of both CLC ELI 103 AND 104 with a grade of A; or ELI 110 with a grade of C or higher.
- m. Successful completion of CLC ELI 108 with a grade of A, or ELI 109 with a grade of C or higher.
- n. **ELI ACCUPLACER** score of **320 or higher.**
- o. Partnership for Assessment of Readiness for College and Careers (PARCC) ELA III score of 5.
- p. ELS Language Centers and ELS Educational Services, Academic Report: completing Level 112.

### Basic Algebra Readiness

Incoming students will be assessed for Basic Algebra Readiness as demonstrated by meeting any one of the following:

- a. High school transcript showing top one-third rank in class on the final transcript (or current transcript after at least five semesters).
- b. CLC Math Placement Test, arithmetic section, Math: Score of 56 or above.
- c. American College Test (ACT), Math: Score of 17 or above.
- d. Scholastic Aptitude Test (SAT), Math Score of 490 or above for test taken March, 2016 or later; score of 450 or above for test taken before March, 2016.
- e. General Educational Development (GED) transcript, Mathematics: Score of 145 or above for test taken January 1, 2014 or later; score of 550 or above for test taken before January 2014.
- f. Test Assessing Secondary Completion (TASC) transcript, Mathematics content area score of 500 or above.
- g. High School Equivalency Test (HiSET) transcript, Mathematics subtest score of 8 or above.
- h. Evidence of an associate or higher degree from a regionally accredited, degree-granting U.S. college or university.
- i. Transcript from a regionally accredited, degree-granting U.S. college or university listing credit equivalent to MTH 101(with a grade of C or better) or higher level courses at CLC
- j. Completion of either CLC MTH 101 or MTH 114 with a grade of C or better.

Basic Algebra Readiness **does not** meet the prerequisite for college-level math courses. Please refer to math course descriptions for complete requirements.