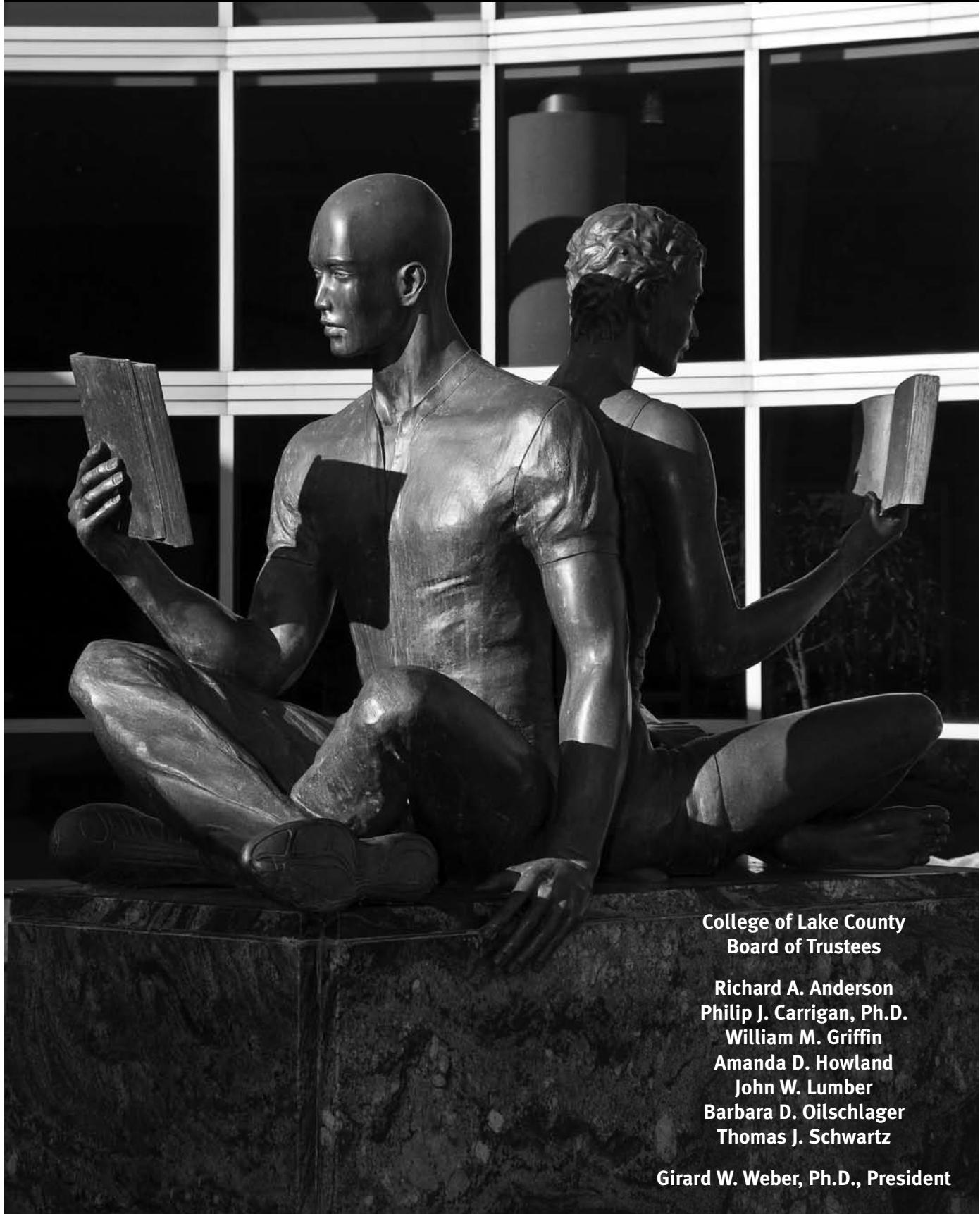




Welcome to the College of Lake County



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The College of Lake County is an Equal Opportunity/Affirmative Action Institution in all aspects of education and employment. This catalog is in effect for the academic year 2010-2011 and is accurate as of May, 2010. The information is subject to change within that period. Any changes will be noted in the class schedule published each semester.

2010 Fall Semester

August 16-20	Faculty / Staff Development Week (Registration / Advisement Ongoing)
August 23	Classes Begin
September 6-7	Labor Day Recess (no classes)
October 19	Mid-Semester
November 8	Open Registration for Spring Semester Begins
November 24-28	Thanksgiving Recess (no classes)
December 11-17	Final Exams
December 17	Semester Ends

2011 Spring Semester

January 10-14	Faculty / Staff Development Week (Registration / Advisement Ongoing)
January 18	Classes Begin
March 15	Mid-Semester
March 28-April 3	Spring Vacation (no classes)
April 25	Open Registration for Summer and Fall Begins and Continues through August
May 7-13	Final Exams
May 13	Semester Ends
May 14	Commencement

2011 Intersession

May 17	Classes Begin
June 3	End of Session

2011 Summer Session

June 6	Classes Begin
July 3	Mid-Session
July 4	Independence Day Holiday (no classes)
July 30	End of Session

2011 Fall Semester

August 15-19	Faculty / Staff Development Week (Registration / Advisement Ongoing)
August 22	Classes Begin
September 5-6	Labor Day Recess (no classes)
October 18	Mid-Semester
November 7	Open Registration for Spring Semester Begins
November 23-27	Thanksgiving Recess (no classes)
December 10-16	Final Exams
December 16	Semester Ends

2012 Spring Semester

January 9-13	Faculty / Staff Development Week (Registration / Advisement Ongoing)
January 17	Classes Begin
March 13	Mid-Semester
March 26-April 1	Spring Vacation (no classes)
April 23	Open Registration for Summer and Fall Begins and Continues through August
May 5-11	Final Exams
May 11	Semester Ends
May 12	Commencement

2012 Intersession

May 15	Classes Begin
June 1	End of Session

2012 Summer Session

June 4	Classes Begin
June 30	Mid-Session
July 4	Independence Day Holiday (no classes)
July 28	End of Session

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 and a member of the North Central Association, 30 N. LaSalle Street, Suite 2400, Chicago, IL 60602, (312)-263-0456 or (800) 621-7440.

Mission Statement

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 Statement

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. Integrity: Requires us to work together honestly and respectfully.
2. Accountability: Guides us to be responsible and exercise good stewardship.
3. Compassion: Compels us to be empathetic, understanding and fair.
4. Learning: Obliges us to create an atmosphere of life-long learning.
5. Diversity: Calls for us to embrace and respect the uniqueness of each member of the community.
6. Leadership: Empowers us to serve as a force for improving the educational, economic, social and cultural quality of life of the community.
7. Service: Reminds us to make mission-centered decisions in the best interest of our students and community.
8. Quality: Commits us to ongoing continuous improvement and excellence.
9. Innovation: Drives us to pursue the best new ideas, approaches, and methods.
10. Collaboration: Commits us to work together with community businesses, organizations and educational institutions.

Goals and Objectives 2010-2011

1. Advance student learning and success.

The college will maximize the quality of the CLC learning experience while helping students identify and reach their learning goals to become life-long learners and critical thinkers who are engaged in their communities, prepared to participate in the workforce, and knowledgeable about the diverse world in which we live.

- 1.1. Improve retention of first year students
- 1.2. Increase graduation and transfer rates
- 1.3. Increase success of male African-American and Latino students
- 1.4. Increase awareness of college readiness expectations in Mathematics, English, Science, Information Literacy, and Technology
- 1.5. Increase the number of students who continue from GED, ESL and developmental courses to college-level courses

2. Maximize educational opportunity within the district.

The college will enhance, develop and promote college-wide offerings that will anticipate and meet the needs of the district.

- 2.1. Increase enrollment of recent high school graduates
- 2.2. Increase enrollment in college-level programs of underrepresented groups, particularly minority males, veterans, and returning adult male students
- 2.3. Increase access to and availability of information, courses, programs and services at Lakeshore and Southlake campuses
- 2.4. Respond to market-place demands for general education courses and for non-traditional course delivery options
- 2.5. Increase enrollment in career programs leading to high paying/ high demand jobs
- 2.6. Integrate sustainability into college curriculum
- 2.7. Increase revenue for student scholarships through Foundation and alumni giving
- 2.8. Partner with University Center of Lake County and its member institutions to enhance and develop transfer programs

CLC Mission and Goals

3. Ensure institutional sustainability and stewardship of resources.

The college will efficiently manage and optimize its resources to ensure sustainable future growth and development.

- 3.1. Develop financial plans that respond to uncertain revenue sources
- 3.2. Identify efficiency, reduce cost, and improve services by leveraging technology
- 3.3. Apply sustainability practices through all college operations
- 3.4. Improve space utilization and plan space to best meet student and program needs
- 3.5. Increase external and non-traditional funding resources

4. Promote diversity and global engagement 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 and global citizenship.

- 4.1. Infuse diversity and multiculturalism into the curriculum and college activities
- 4.2. Recruit and retain underrepresented students, staff and faculty
- 4.3. Promote and increase professional development of diversity and multi-culturalism within the student body and college community
- 4.4. Open and maintain lines of communications with community groups and organizations in Lake County regarding diversity program activities
- 4.5. Improve international educational opportunities and programs

5. 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.

- 5.1. Improve internal processes such as the hiring process and the enrollment intake process
- 5.2. Increase satisfaction with technology
- 5.3. Improve faculty and staff skill level in using technology
- 5.4. Streamline the course and program development process

6. Build the college's reputation as a premier educational institution.

The college will be recognized at the community, state and national levels for its academic quality, alumni achievement, and educational, economic, cultural, and arts leadership.

- 6.1. Enhance and promote the college brand to communicate the quality of the CLC learning experience
- 6.2. Improve relationships, partnerships and collaborations with local school districts, business, healthcare, and community-based organizations
- 6.3. Create new and strengthen existing University partnerships so CLC is seen as entry to advanced degrees
- 6.4. Lead Illinois community colleges in the areas of sustainability, international education and emerging technologies

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 (AA), an Associate in Science (AS), an Associate in Engineering Science (AES), an Associate in Fine Arts (AFA) or an Associate in Arts in Teaching (AA) 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 46-55.

Career Education

Many students at the College of Lake County 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 which leads to an Associate in Applied Science degree (AAS) or a shorter sequence which leads to a Certificate. See page 88 for more information.

Many career students at CLC 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. It is estimated that during the next 10 years, 60 percent of all job opportunities will require a level of education beyond high school, but less than a four-year degree. Career programs prepare students to step directly into this fast-moving age of

technological change. The College currently offers over forty specialized career programs, many of which are available both day and evening.

The College of Lake County also offers programs to meet the needs of students whose first language is not English. The ESL Supported Career Programs offer English as a Second Language support to students in the areas of Administrative Office Systems, Automotive, and Refrigeration & Air Conditioning. Students in these certificate programs receive assistance in the form of in-class tutoring, ESL support classes, and career assistance upon certificate completion. For more information call (847) 543-2548 or (847) 543-2751.

In addition to the career programs offered within the College of Lake County's 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.

Such agreements exist with the following institutions:

- College of DuPage in Glen Ellyn, IL
- Elgin Community College in Elgin, IL
- Gateway Technical College
in Kenosha/Racine/Elkhorn, WI
- McHenry County College in Crystal Lake, IL
- Oakton Community College in Des Plaines, IL
- Triton College in River Grove, IL
- William Rainey Harper College in Palatine, IL

For more information about joint agreements see page 175 or contact the Assistant Vice President for Workforce Education at (847) 543-2412.

Developmental Education

The College of Lake County 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 (CELSA) and recommendations of faculty.

Programs of Study and Educational Options

Testing

One way in which a student may show language proficiency and basic algebra readiness attainment of the required skills is by taking the Academic Proficiency Test administered by the Learning Assistance Center. The Academic Proficiency Test includes a language skills test and a mathematics test. This test is administered at all three CLC campus 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 basic skills is provided by specific courses in the various divisions, modules in the Learning Assistance Center, and individual tutoring. Students who have questions about basic skills courses in reading, writing, or mathematics should contact a counselor, advisor, LAC staff member, or the appropriate division office:

Engineering, Math, and Physical Sciences:
Room T102, (847) 543-2044
Communication Arts, Humanities, and Fine Arts:
Room B210, (847) 543-2040
Counseling Center: Room C 110, (847) 543-2060

Individual tutoring by trained professionals and by fellow students is available in the Learning Assistance Center.

The Writing Center offers 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 Math Center provides tutoring in all levels of mathematics. Tutors also assist students with math-related questions from other courses. Additional help is available through study groups, math anxiety workshops, and supplemental video tapes, audio tapes, workbooks, and software.

Adult Education

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 totaling \$622,290. This represents 16% of the total cost of the program.

Adult Basic Education

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

English as a Second Language

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

General Educational Development

General Educational Development (GED) classes prepare Lake County adults who have not completed high school to take the GED exam. Students who successfully pass the GED exam are awarded a high school equivalency certificate. This exam is offered in English and Spanish.

High School Completion

High School Completion classes are for adults 16 years or older who have separated from a secondary educational system and want to complete their high school graduation requirements and pass the high school equivalency exam.

Vocational Skills Training

Vocational Skills Training (VST) is designed to introduce students to various types of vocational opportunities available in industry. Information on various vocations is presented so that students may make an informed choice about the type of work they would like to pursue.

Non-Credit Opportunities

Workforce and Professional Development Institute: wpdi.clcillinois.edu

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 take advantage of WPDI programs and services.

Through **Client Solutions**, training programs may be delivered for groups of employees to address specific organizational needs. Programs can be customized to an organization's specific objectives, and can be delivered either on-site 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 on-site to enhance employee development. For more information, contact Client Solutions at (847) 543-2615 or via e-mail at corporatetraining@clcillinois.edu.

Through **Continuing Professional Development (CPD)**, individuals enroll in courses designed to help develop career skills. CPD training programs help students enhance current workforce skills or learn new skills. A variety of training programs prepare individuals for licensure, license renewal or certification requirements for outside agencies or organizations. Course topics include computer skills, real estate licensure preparation, broker management, business skills, workplace Spanish, training for beverage and alcohol sellers and servers, construction management and teacher education. Vocational programs such as Custom Motorcycle Building and Home Inspection training programs are also available. For more information, call (847) 543-2615 or email professionalworkshops@clcillinois.edu

The **Illinois Small Business Development Center** (ISBDC) has been helping Lake County businesses grow since 1985. The ISBDC provides expert resources to strengthen local business, whether new or existing. Business owners and aspiring entrepreneurs can meet with a business advisor for confidential one-on-one counseling to help reach goals through strategic planning and management. Small business workshops are available to help small business owners reach their potential through skill growth and development. Businesses can reach out for this excellent resource today, for a stronger tomorrow. For more information or to schedule an appointment, call (847) 543-2033, email illinoissbdc@clcillinois.edu, or visit wpdi.clcillinois.edu/sbdc.

The **Illinois Procurement Technical Assistance Center** (PTAC), located at the College of Lake County, assists local businesses that seek to sell their product or service to the government or to the Federal Prime Contractors. Additionally, the center provides assistance in understanding the requirements and application process for various certifications including those for woman and minority-owned businesses. The Illinois PTAC provides training on a variety of topics related to doing business with the government and holds outreach events for businesses to network and meet potential government customers. For more information, contact the Illinois PTAC office at (847) 543-2025 or via email at illinoisptac@clcillinois.edu

The **Judicial Services** department, in conjunction with the 19th 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" program 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.

Healthcare and Nursing continuing education (formerly Allied Health) is now housed in the Workforce & Professional Development Institute (WPDI) as part of Continuing Professional Development. Students will receive the same quality programming as they always have, along with the resources and customer service of the WPDI. The Pharmacy Technician Program is also now part of the WPDI. The CLC Nursing Department continues to oversee Continuing Nursing Education programming and the Massage Therapy program.

For more information call (847) 543-2615 or email professionalworkshops@clcillinois.edu or visit wpdi.clcillinois.edu/professional/healthcare.asp.

Center for Personal Enrichment

The Center for 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 fun-filled, relaxing environment. Whatever the interest, offerings are available for the entire family.

Teen & Gifted Children Classes Ages 13-17

Teen classes cover a range of subjects including sports and martial arts, exercise, pets and horseback riding, dance, creative writing and gardening. To enroll in the Fast Paced program for gifted and talented children, students must provide verification of high test scores on the SAT or similar tests. Requisite test scores vary depending upon the subject: math, verbal, creative writing, physics, chemistry and languages. For more information, call (847) 543-2022 or email ace192@clcillinois.edu.

Youth Classes Ages 6-14

A variety of educational and recreational programs are offered for students ages 6-14. Classes are held at all three CLC campuses. Saturday classes include fencing, archery, rocketry, computers, video/photography, cosmetology, culinary arts, and dance, with new classes being offered each semester. Offsite classes include horsemanship. New programs include academic enrichment in foreign languages, math, test prep, and writing. For more information, call (847) 543-2759 or email tsjohnson@clcillinois.edu.

Summer Youth Camps Ages 6-17

Camp XPLORE!, the Personal Enrichment program offers premium summer programs for youth including LEGO Engineering, Video Game Making, Kids First Sports Safety, Inc. and sports camps. Programs offer opportunities in leadership development, counselor-in-training skills, and the fine arts. For more information on the Xplore programs or a current brochure, call (847) 543-2759 or visit www.clcillinois.edu/noncredit/programs/youth.asp

Discovery!

The Discovery! program for adult learners offers exciting and creative courses for people fifty and older. Short-term classes are offered on weekdays and cover a wide variety of topics including theater, art, and neighborhood trips and tours for fun or personal development. College instructors or community professionals facilitate most sessions. For more information or a current brochure call (847) 543-6507.

For more information on these programs, call the Center for Personal Enrichment at (847) 543-2022.

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

We at the College of Lake County 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 in helping 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

The College of Lake County 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 and submitting the Student Information Form. The college serves those who are high school graduates, others who are eighteen years of age or older, and individuals under eighteen 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 see page 317 for a Student Admission Form and specific requirements.

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 page 314 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.
 - 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 and Records 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 AA, AAT, AS, AES, or AFA degree in this catalog;
Science:	Any lab science course from the list required for an AA, AAT, AS, AES or AFA degree in this catalog;
Social Sciences:	Any social science course required for an AA, AAT, AS, AES or AFA degree in this catalog;
Humanities:	ENG 122 English Composition II or any humanities course required for an AA, AAT, AS, AES or AFA degree in this catalog

See pages 46-55 for courses required for degrees.

Please see the section on Advising on page 22 of this catalog for further information.

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 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 88-178 of this catalog for further information including selective admission requirements.

Dual Admission

The College of Lake County has dual admission agreements with Roosevelt University, Northern Illinois University, University of Wisconsin-Parkside and Northeastern Illinois

University. These agreements allow eligible students the opportunity to gain admission to the College of Lake County and a transfer university at the same time. Students participating in dual admission programs benefit by receiving early notification from their transfer schools while enrolled at CLC. For more information about dual admission programs, contact the Counseling Center at (847) 543-2060.

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 and Records.

1. Completed CLC Student Information Form.
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 and Records:

1. Completed CLC Student Information Form.
2. Completed CLC Adult Education Enrollment for Students Under Age 18 Form

Students who wish to enroll in college credit, remedial or developmental courses must complete a Secondary School Reference Form.

Dual Enrollment/Dual Credit

Dual Enrollment/Dual Credit at the College of Lake County offers high school students an opportunity to earn college credit prior to graduating from high school. Through formal agreements with individual high schools, the College of Lake County can offer courses that cover content not offered through a high school's Advanced Placement Program or that is not available at the local high school. High school students should check with their high school counseling office to see if their school participates in this statewide effort, as well as to see what courses are available. Students who participate in Dual Enrollment/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. For additional information, contact the Assistant Vice President for University Transfer at CLC at (847) 543-2407.

Admission for Students Under the Age of 16

A student under sixteen 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 and Records 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 the College of Lake County

AND

A letter of recommendation from the high school department outlining the student's intended course or study at the College of Lake County.

Home-schooled students should submit the following credentials to the Office of Admissions and Records:
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 study at the College of Lake County.

2. Completed CLC Student Information Form.
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 the educational level that is 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 US on an F-1 student visa or issued the Form I-20 Certificate of Eligibility approved for study at the College of Lake County.

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 term.

To apply, the following must be submitted:

- Completed International Student Application
- Completed College of Lake County Student Information Form
- 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
- Passport size photo
- A TOEFL exam is not required for English language training. Students who submit an official minimum score of 527/197/71 (paper-based/computer-based/ internet-based) will qualify for regular academic classes.
- Completed International Student Agreement
- Completed International Student Transfer Form, if transferring from another US institution

For further information about admission requirements, contact the International Admissions Specialist at (847) 543-2733.

Servicemembers Opportunity College

The College of Lake County has been designated a Servicemembers Opportunity College (SOC) by the Department of Defense and the American Association of Community Colleges. Servicemembers Opportunity College Associate Degree (SOCAD) student agreements are available in many different curriculums offered at the College. CLC is committed to Great Lakes Naval Base personnel and their families. The College's in-district admission policies apply to all service personnel as well as to their families. For more information on applying for a SOC agreement, contact the Servicemembers Opportunity College Representative at Great Lakes Naval Base Center at (847) 543-2971.

Registration Steps For Credit Classes: New Students

New students to CLC should follow these steps to apply for admission and register for classes.

Step 1

Complete a Student Information Form and submit other required credentials.

You may complete a Student Information Form on the Web at www.clcillinois.edu.

Additional admission requirements apply to the following prospective students:

- High school graduates from 2009 or 2010 who are pursuing a degree or certificate program should send their high school transcript to the Office of Admissions and Records.
- If you are transferring credits into CLC from another institution, please have official transcripts sent to the Office of Admissions and Records.
- Students who are under 18 or currently enrolled in high school must submit a Secondary School Reference Form with appropriate signatures before enrolling. Form available at www.clcillinois.edu/depts/adr/forms.asp or call Admissions.
- Nursing, Dental Hygiene, Magnetic Resonance Imaging, Medical Imaging, Health Information Technology, Medical Assisting, Computed Tomography, Surgical Technology, and Certificate in Paralegal Studies have additional admissions requirements. Contact the Admissions Office at voice (847) 543-2061 or TTY (847) 223-0134.

Step 2

Learn your CLC Student ID and create myLogin

When your application has been processed (usually within 2 working days), you will receive your 7-digit CLC Student ID number in the mail. Go to www.clcillinois.edu/newlogin to create your personal login.

- If you have NEVER registered for a class at CLC, click “Create Login for New Students.” Enter your CLC ID, First and Last Name, and Birth Date (ex. mmddyy).
- Returning students who have attended CLC prior to May 2009 should click the link for “Create Login for Active/Returning Students.” Your PIN was initially set to your 6-digit date of birth (mmddyy).

Follow the steps to create your login. It is very important that you remember your username and password, and that you choose security questions with answers that you can remember. If you forget your username and password, or would like to change your password or security questions, visit www.clcillinois.edu/managelogin.

Step 3

Meet Proficiencies / Prerequisites

Before you will be able to register for most college credit classes, you need to show that you are language proficient and basic algebra ready. The Admissions Office will accept one of the following official or unofficial documents to prove language proficiency and basic algebra readiness:

- HS transcript showing class rank in top 1/3 after 6 semesters
 - ACT score report showing reading, language and math scores of 17 or above
 - SAT score report showing critical reading, writing and math scores of 450 or above
 - GED transcript showing 550 or above in reading, language and math
 - U.S. college transcript showing completion of an Associates degree or higher
 - U.S. college transcript showing completion of 30 credits with no grade less than “C.”
(Satisfies Language Proficiency only.)
- OR**
- Take CLC’s Academic Proficiency Language test (minimum score of 153) and Math Placement test, arithmetic section (minimum score of 56).

Basic Algebra Readiness does not meet the prerequisite for college-level math courses. Please refer to math course descriptions for complete requirements.

Step 4

Attend a New Student Orientation Advisement Session or an Advisement Information Meeting (AIM)

New Student Orientation is **required** for all recent high school graduates (Class of 2009 and 2010) entering CLC for the first time.

All other new students (excluding recent high school graduates) may attend an Advisement Information Meeting (AIM) **before** meeting with an Academic Advisor.

To register for New Student Orientation or an Advisement Information Meeting, please visit www.clcillinois.edu. Under “News & Announcements,” click “Register for New Student Orientation and Advisement Information Meetings.” Continue to fill out the appropriate form. If you need additional help registering for New Student Orientation, please contact the New Student Orientation office at (847) 543-2486.

Admission and New Student Information

If you need additional help registering for an Advisement Information Meeting, contact the Counseling, Advising and Transfer Center at (847) 543-2060 (Option 4). You may also visit the Counseling, Advising and Transfer website for more information at www.clcillinois.edu/depts/cou.

Hours of operation for the Counseling, Advising and Transfer Center

Monday-Thursday, 8 a.m. to 8 p.m. and Friday 8 a.m. to 4 p.m. (Grayslake Campus), Room C110 (847) 543-2060 (Option 4). Please visit the Counseling, Advising and Transfer Center Web site for walk-in and appointment times.

Note: Contact information for the Lakeshore Campus (Waukegan) and Southlake Campus (Vernon Hills) are as follows: Lakeshore-Room N211, (847) 543-2186; Southlake-Room V130, (847) 543-6501 (Option 1).

Step 5 Meet with an Academic Advisor

If you need additional assistance *after* attending a New Student Orientation Advisement session or an Advisement Information Meeting, you may meet one-on-one with an Academic Advisor. Academic Advisors are available to help you get started at the college, interpret your assessment and placement test scores, and determine appropriate initial course placements and selections. Contact the Counseling, Advising and Transfer Center to make arrangements to see an Academic Advisor, Room C110, Grayslake Campus, (847) 543-2060 (Option 4). **Note:** Students who attend the Lakeshore or Southlake Campuses may meet with a counselor on that campus.

Please visit the Counseling, Advising and Transfer website for current hours of operation at www.clcillinois.edu/depts/cou.

Step 6 Complete Registration

Use the class schedule to select your classes. The most current schedule is available on the web. Before you can register, you must establish your user login. Follow the instructions on the web at www.clcillinois.edu/selfserv.asp. Once you have logged in, you may continue on to register at anytime. If you need assistance with registration, come to the Admissions office in B101 at the Grayslake Campus, the Student Services office at the Lakeshore Campus, or the Campus and Student Support Center at the Southlake Campus.

Step 7 Pay Tuition and Fees

To avoid being dropped from classes for non-payment, you must pay in full or enroll in the college's installment tuition payment plan by your due date.

Prior to their tuition due date, financial aid applicants must have completed the FAFSA application and demonstrated eligibility in order to be awarded financial aid. If the amount of the financial aid award does not cover the balance due, you must either pay the difference in full, or enroll in the college's installment tuition payment plan by your due date. For more information about tuition payment, call (847) 543-2085.

For more information about financial aid, call (847) 543-2062.

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 C110 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 requirements, complete a Petition for Graduation Form, located in the Office of Admissions and Records, during the last semester of your course completion. Deadlines for submitting petitions are published in the CLC Schedule of Classes. The deadline for students completing their coursework in the fall or spring semester is during the first four weeks of that semester, and the deadline for students completing their coursework in the summer session is the first two weeks of the summer session.
3. You will receive the results of the evaluation of your petition approximately four to six weeks after the start of the term that you have designated as completing your requirements.
4. A commencement ceremony is held annually in the month of May for summer/fall graduates and spring/summer candidates.

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 2010 are as follows:

In-District	
Tuition (per credit hour)	\$ 90.00
Comprehensive Fee (per credit hour)	\$ 9.00
Technology Fee (per credit hour)	\$ 4.00
Instructional Equipment Fee (per credit hour)	\$ 3.00
Total Tuition and Fees	\$ 106.00

Tuition and fees for non-credit courses (courses which 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 comprehensive fee supports student activities, student services, including child care, program board activities, the student newspaper, tutoring and infrastructure improvements as well as help to defray the costs of parking lot improvements and campus safety expenditures.

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. Program 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 either an Illinois driver's license or identification card issued by the Illinois Secretary of State's Office or an Illinois voter identification card.

Residents of the College District

Students who are at least eighteen years of age and who have occupied a dwelling within Community College District #532 for at least thirty days prior to enrolling at the College of Lake County are considered "in-district." Community College District #532 is defined to include residents of the following Lake County, Illinois public high school districts: Adlai E. Stevenson, Antioch, Grant, Grayslake, Highland

Park-Deerfield, Lake Forest, Lake Zurich, Libertyville, Mundelein, North Chicago, Round Lake, Vernon Hills, Warren Township, Wauconda, Waukegan, and Zion Benton.

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 the United States for at least 30 days prior to the beginning of the 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 sixty 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. All residents of the college district who are sixty-five years of age or older at the time of registration and who qualify financially according to Illinois Statute may enroll in credit courses offered by the College without paying tuition or activity fees. For more information, contact the Financial Aid Office at (847) 543-2062.

Business Educational Service Agreement

Students who live outside of the College of Lake County's district and are currently employed full-time (thirty-five or more hours per week) 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. For more information, contact the Office of Admissions and Records 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 United States 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 United States uniformed services identification card. Spouses and children of such military personnel are also eligible for the in-district tuition rate.

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 2010-2011 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 Financial Aid Overview 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.

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 completion of degree or certificate requirements.

Method of Payment/Installment Plan

Students may use cash, check, or credit card (VISA, MASTERCARD, DISCOVER, and AMERICAN EXPRESS) for payment of tuition and fees and for book store purchases. Students may also pay tuition over a period of time. For details on Tuition and Fees Installment Plan, consult the CLC Schedule of Classes.

Approximate Student Budget for Students

Living with Parents

Tuition and Fees	\$2,968.00
Books and Supplies	1,456.00
Room and Board	1,862.00
Personal Expenses	1,372.00
Transportation	\$1,708.00
	<u>\$9,366.00</u>

Approximate Student Budget for Students

Not Living with Parents

Tuition and Fees	\$2,968.00
Books and Supplies	1,456.00
Room and Board	4,732.00
Personal Expenses	1,372.00
Transportation	\$1,708.00
	<u>\$12,236.00</u>

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 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.

Registration

Students are responsible for officially registering in classes they attend. Registration for the fall term begins the preceding April, registration for spring term begins the preceding November. Summer registration begins in April.

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

Late Registration

The College of Lake County 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. However, NO late registration (for classes already in session) will be allowed after the financial aid census date.

Dropping or Withdrawing from a Class

Students are responsible for dropping or withdrawing from classes they do not intend to complete. Students who stop attending class and do not officially drop or withdraw will receive an institutional withdrawal grade which indicates their academic status at the point they stopped attending (see *Institutional Withdrawal for Non-Attendance* section below).

The official deadlines for dropping or for withdrawing are defined individually for each class. To check the deadline dates, students may consult their online schedule of classes, or printed **Confirmation of Registration** mailed prior to the term start, or call the Office of Admissions and Records.

The official **drop deadline** 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 at a point when 15% of the class length has passed. The drop deadline for one-day and “series” classes is the day before the class begins.

The official **withdrawal deadline** is the last date to withdraw from class. Students who withdraw prior to this deadline will receive a grade of **W** on the academic transcript. This withdrawal date is specific to each class, and is at a point when 68% of the class length has passed. After the withdrawal deadline has been reached, students are prevented from dropping the class, and should speak to their instructor concerning their withdrawal request.

Institutional Withdrawal for Non-Attendance

The college may administratively withdraw students who have never attended class, or who stop 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 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
- WS Withdrawal of a student who stopped attending, no impact on GPA
- WF Withdrawal of a student who stopped attending and instructor deemed as failing. The WF 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 page 18 for more information on financial aid.

Reinstatement of Withdrawn Students

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

Refund Policy

Students are responsible for officially dropping classes they do not intend to complete. See page 16 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	100% refund
Drop before 15% of class days pass	
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 cashier's window.

Drop for Non-Payment

Students who do not pay (or make arrangements to pay) 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 during a defined period immediately following the drop process. The reinstatement dates are publicized at the time of the “drop for non-payment” process. In order to be reinstated in the same classes, a student must complete a “Reinstatement After Drop” form obtained from the cashier’s window. The student must make immediate arrangements to pay, and then will be reinstated by bringing the form to the Office of Admissions and Records.

Office of Financial Aid

Grayslake Campus • Room B-114, (847) 543-2062
Federal School Code: 007694

The Financial Aid Office at the College of Lake County 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

The information listed below was referenced from the *Funding Education Beyond High School: The Guide to Federal Student Aid 2010-2011*, which is available online at http://studentaid.ed.gov/students/publications/student_guide/index.html

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 and 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:

- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal Work Study Program (FWS)
- William D. Ford Federal Direct Loan (Direct Loan) Program
- The Academic Competitiveness Grant (ACG)
- 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.
- Be a U.S. citizen or eligible noncitizen (for most programs) with 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.
- 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.

- Pass an approved ability-to-benefit (ATB) test. (If you do not have a diploma or GED, a school can administer a test to determine whether you can benefit from the education offered at that school).
- Meet other standards your state establishes that we have approved.
- Complete a high school education, approved under state law, in a home school setting.

Application Procedures

To apply for a *Free Application for Federal Student Aid* (FAFSA), first request a personal identification number (PIN) by going online at www.pin.ed.gov. If you are a dependent student, make sure to also request a PIN number for one of your parents. This PIN will let you apply, "sign" your online *Free Application for Federal Student Aid* (FAFSA), make corrections to your application information, and more—all online.

After you have your pin number, 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.

Complete the FAFSA between January 1, 2010 and June 30, 2011. There will be NO exceptions to either date! Apply as soon as possible, after January 1st, to meet school and state aid deadlines. The fastest and easiest way to apply is through www.fafsa.gov

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.

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.collegezone.com. 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)
- Silas Purnell Illinois Incentive for Access (IIA)
- Grant Programs for Dependents of Police/Fire/Correctional Officers
- Illinois Veterans Grant (IVG)
- Illinois National Guard (ING) Grant
- MIA/POW Scholarship

How to contact the Financial Aid Office at College of Lake County

We are located in room B114 at the Grayslake campus. Limited office hours are available at the Lake Shore campus. Please contact the Grayslake Financial Aid Office, or check our website, at www.clcillinois.edu/depts/fao.asp, for more information.

Office Hours:

Grayslake: 8 a.m. – 8 p.m. Monday–Thursday

8 a.m. – 4:30 p.m. Friday

(847) 543-2062 phone

(847) 543-3062 fax

Lakeshore: 12 p.m. – 8 p.m. Monday–Thursday

8 a.m. – 4:30 p.m. Friday

Procedures and Guidelines

Census Date and Financial Aid Awards

Students who are eligible for financial aid and enroll at CLC receive an award notification letter which lists each type of financial aid they may receive. The award amount shown in the award notification is based on student enrollment (credit hour load) at the time the award is processed. If the award is processed for the fall term, the award notification will also include a projected amount if the student attends CLC full-time in the spring. The actual amount of aid a student receives will be based on enrollment as of the financial aid census date. Please refer to the class schedule or the "Important Dates" web page for the 2010-2011 Aid Year census dates. On census date, the financial aid office will 'freeze' student enrollment and adjust awards to the correct amount, based on actual hours enrolled as of that time. If a student enrolls in late-starting classes after the financial aid 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 advisor. The aid will be adjusted after the student is permitted to drop and he/she will be required to return a portion of the aid received.

Late applicants (awarded after the census date) will be processed during the remainder of the term, on a first-come, first-serve basis. The amount of the award will be based on enrollment at the time the award is processed. Late awards will be disbursed immediately.

Bookstore Vouchers

Students with anticipated credit balances on their student account, based on anticipated financial aid, will be allowed to charge books in the CLC Bookstore. Contact the Financial Aid Office, or check the Financial Aid website at www.clcillinois.edu/depts/fao.asp to determine eligibility to charge books and locate the dates when book charges are accepted.

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/depts/fao.asp 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.

The new 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 to be enrolled. 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 percentage of Title IV funds earned by a student who fully withdraws is calculated by simply dividing the number of calendar days the student was enrolled by the number of calendar days in the semester. For example: if a semester contained 112 calendar days and a student withdrew on the 28th calendar day, he/she would be entitled to 25% of his/her Title IV funds ($28 \text{ days attended}/112 \text{ days in semester} = 25\%$).

Schools are required to calculate the Return of Title IV Funds up through the 60% point of each semester. After the 60% point it is considered that the student has earned 100% of the Title IV funds disbursed. For more information on the College's Withdrawal policies, please refer to the Student Records Policies web page.

Please feel free to contact the Office of Financial Aid at (847) 543-2062 if you have any questions concerning this provision.

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 of Lake County offers a wide range of associates 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, 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 advisor for more information on eligibility.)

Financial Information

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, as well as audited courses, non-credit courses or courses with the prefix of ABE, ADE, ASE, EMT, ESL, GED, MAS, and VST are not eligible for financial aid.

Refund Checks

The Business Office will issue refund checks to students based on credit balances approximately ten days after their financial aid is credited to their student account. The Business Office will deduct tuition and fees, bookstore charges, and any other charges the student owes the College from the student's account before refunding the remaining balance. Please contact the Financial Aid Office or check the Financial Aid website at www.clcillinois.edu/depts/fao.asp for the dates on which the Business Office mails refund checks.

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% of the class length has passed. Satisfactory academic progress is measured in three distinct ways:

- 1) Course Completion Rate - Students must successfully complete at least 67% of all course 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. Effective at the end of Fall 2009 Semester, students who do not comply with the requirement will be put on a one-semester probation, but will still receive financial aid for that semester. If 67% completion rate is not achieved by the end of that semester, they will be restricted and will no longer be eligible for financial aid.

- 2) Cumulative Grade Point Average (GPA) - Students must have a 2.00 cumulative GPA to graduate from the College, and therefore, must meet the following interim cumulative GPAs (remedial courses are included in GPA for SAP):

Hours Attempted	Cumulative GPA 0.00-1.49	Cumulative GPA 1.50-1.99	Cumulative GPA 2.00-4.00
0-14	Restriction	Probation	Satisfactory
15 and above	Restriction	Restriction	Satisfactory

The above chart displays a student's Satisfactory Academic Progress status (satisfactory, probation or restriction) as a function of the number of hours attempted and the resulting cumulative GPA.

- 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 time, but by a total number of attempted hours allowed to complete a degree. For example, a student pursuing a 60 credit hour associates degree will continue to be eligible for financial aid until he/she has attempted 110% of the required number of hours for the degree. For example, in a 60 credit hour degree program, the student may attempt up to 66 credit hours before the time to complete is exceeded. Degrees or certificates of varying lengths are prorated accordingly. Changes in majors and additional degrees include all attempted hours. Once the student's time frame to complete the degree has reached 100% the student will be placed on probation. When the student's time frame reaches 110%, the student is placed on restricted status and is no longer eligible for financial aid at the college. A student with a program time frame that moves from below 100% to 110% and greater within the same semester will be placed directly on restricted status and will not have a probation period.

Included in the count of attempted hours is all attempted coursework 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 non-credit remedial course work, are considered hours attempted and are included in the maximum time frame. If a student receives a grade of F or WF in a course and must repeat that course, financial aid will only pay for a second attempt. Additionally, students can only receive financial aid for up to 30 attempted hours of remedial coursework.

Satisfactory Academic Progress

Satisfactory academic progress is measured by two standards: 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 satisfactory academic progress 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 at a point when 15% of the class length has passed. Excluded from these standards are courses in Adult Basic Education (ABE), Adult Developmental Education (ADE), English as a Second Language (ESL), General Education Development (GED), Vocational Skills Technology, Contract Training, Continuing Education, and General Studies.

Satisfactory, Probation, 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 **probation** status for failing to meet GPA and/or course completion rate requirements and/or program time frame falls between 100% and 110% 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 restricted status has the right to appeal. 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. 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 for program time frame limitation require a student to meet with an academic counselor to complete a Satisfactory Academic Progress Planning Form. The appeal form is available in the Financial Aid Office and the website at www.clcillinois.edu/credit/aid/forms.asp. The deadline to submit an appeal can be found in the Satisfactory Academic Appeal form available at the Financial Aid Office and the website at www.clcillinois.edu/credit/aid/forms.asp.

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. All appeal decisions are final.

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 must submit all requested documentation within 30 days from the date postmarked on the notification letter sent from the Office of Financial Aid.

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

The verification worksheet is also available in the Financial Aid Office and the website at www.clcillinois.edu/credit/aid/forms.asp.

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/credit/services/fao.asp.

College of Lake County Foundation Scholarships

The College of Lake County Foundation is a private non-profit organization. One of its purposes is to raise scholarship funds for students at the College of Lake County. Most Foundation scholarships are designed to benefit students who need financial assistance, even those who do not qualify for other forms of financial aid. To learn more about the Foundation's scholarship program, please visit the Financial Aid Office Web site at www.clcillinois.edu/depts/fao/foundationscholarships.pdf. Booklets are also available in the Financial Aid Office (B114) on the Grayslake Campus, at the Lakeshore Campus, and at the Southlake Campus. For more information, call (847) 543-2369.

The CLC Foundation also funds innovative educational and cultural programs 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, 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 B150 on the Grayslake Campus. For more information, call (847) 543-2646.

Student Body Profile

The College of Lake County student body reflects the diversity of the Lake County community. In the fall of 2009 there were 18,092 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 2009, there were 14,803 college level students enrolled at the College of Lake County. Nineteen percent of students graduating from Lake County public high schools in the previous spring enrolled at the College of Lake County in the fall. Students in the 18 to 24 year age group made up 58 percent of the student body. Students aged 25 to 34 comprised the second largest segment or 18 percent of the total. The average age of the college level student body was 28 years old. Minorities comprised 32 percent of the student body. Hispanic students accounted for the largest single minority group (17%).

The majority of college level students (58%) attended part-time while 42 percent attended full-time. Forty-six percent attended in the evenings and 50 percent in the daytime. Four percent of students attended classes primarily on the weekends. Graduate follow-up studies indicate that students who continue their education after graduating from CLC are well prepared for their classes. Based on data from a number of transfer universities, CLC students do as well or better than other students in their classes. Among the fiscal year 2008 graduates that responded to the survey who entered the labor market after completing an AAS degree or certificate program, 60 percent found work in fields related to their area of study. In addition, 96 percent of all respondents reported they were satisfied with their jobs and 84 percent of respondents indicated satisfaction with the job preparation received at CLC.

Adult/Vocational Education Students

In the fall of 2009, there were 3,289 adult/vocational education students enrolled at the College of Lake County. The majority (62%) of these students are enrolled in English as a Second Language classes. Students in the 25 to 34 year age group made up 29 percent of the student body. Students aged 35 to 44 comprised the second largest group (27%). Minorities comprised 76 percent of the student body. Hispanic students accounted for the largest single minority group (60%).

The majority of adult/vocational education students (91%) attended part-time. Evening students outnumbered day students 51 percent to 38 percent. Twelve percent of adult/vocational students attended classes primarily on the weekends.

Academic Advising

The College of Lake County 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 (press 4) (C110 on the Grayslake Campus, www.clcillinois.edu/credit/services/cou.asp) if they need academic advising.

Advising Responsibilities of Advisors

General academic advisors, faculty and counselors 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 academic advisor 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 30 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 30 credits will typically meet with a counselor. Counselors meet with students for other reasons as well. See page 23 for a list of counseling services and locations.

Counselors and academic advisors also assist students with utilizing college and career resource information available in printed form and on computers. Transfer guides for public universities and many private universities within Illinois are available at CLC's three campuses and on the college's website at www.clcillinois.edu/credit/services/cou.asp.

Academic Advisors and Counselors are available at Grayslake Campus:**Counseling, Advising and Transfer Center**

19351 W. Washington Street, Grayslake, IL 60030-1198
Room C110

Monday through Thursday	8:00 am - 8:00 pm
Friday	8:00 am - 4:00 pm*

Call (847) 543-2060 (press 4) to schedule an appointment.

* Holiday and break hours may vary.

Counselors are also available at the following locations:**Lakeshore Campus**

Student Services Center
111 North Genesee Street, Waukegan, IL 60085
Room N211
Call (847) 543-2186 to schedule an appointment.

Southlake Campus

Campus and Student Support Center
1120 South Milwaukee Avenue, Vernon Hills, IL 60061
Room V130
Call (847) 543-6501 to schedule an appointment.

Mandatory Advising

The following students must meet with an appropriate advising professional (academic advisor, counselor, or faculty member) before registering for classes:

- Recent high school graduates entering CLC for the first time are required to meet with an academic advisor during the New Student Orientation Advisement Session. Research has shown that, on average, younger students have lower grade-point averages than older students and enroll in more credit hours. Receiving academic advising upon entering college helps students start on the right path.
- Degree or certificate seeking students prior to registering for their 19th and 41st college credit hours. Academic advising upon entering CLC, then at the 19th hour and again at the 41st hour 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 the advising hold to allow registration for classes.

Other students may also benefit from talking with an academic advisor, counselor or faculty member prior to registering for classes. Students will be referred to the appropriate office based on number of credits earned/enrolled and students' needs.

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 C140 ..(847) 543-2042
Business Division	Room T102 ..(847) 543-2041
Communication Arts,	
Humanities, and Fine Arts ..	Room B237 ..(847) 543-2040
Engineering, Math,	
and Physical Sciences	Room T102 ..(847) 543-2044
Social Sciences	Room A244 ..(847) 543-2047

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, C110, (847) 543-2060 (press 4); Lakeshore, N211, (847) 543-2186; and Southlake, V130, (847) 543-6501. An alphabetical list of counseling services available is listed below.

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

Through counseling, assessment and career information, counselors help students set and realize career-related goals. Methods may include individual or group counseling as well as credit or non-credit classes, in particular, PDS 122 in the course section of this catalog.

Crisis Intervention

Counselors are available as a resource to all CLC staff and faculty members to provide help to students who may be in crisis. Students are encouraged to meet with a counselor to discuss their situation. Counselors will listen and refer students if on-going personal counseling or therapy is needed. Faculty, staff and friends of students are also encouraged to refer or walk students who might be in crisis to the counseling center.

Educational Development

Counselors can 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. The counseling staff also assists students whose reading, writing, or mathematics skills are below college level. See 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.

Selecting a Major

Counselors and academic advisors work with undecided students to help them select a program and curriculum which meets their life and career goals.

Transfer Counseling and Planning

Counselors typically help students choose a major that fits their career and life goals, make decisions about the type of college or university they want to attend, and address personal or social issues and concerns connected with transferring.

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

The Office for Students with Disabilities (OSD) is located in the Learning Assistance Center at the Grayslake Campus at the College of Lake County. The OSD provides academic accommodations, information, guidance, 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
- Tape recorders
- Magnification devices
- Testing accommodations

To request accommodations, students must follow procedures outlined by the Office for Students with Disabilities.

1. Students must disclose their disability to the OSD as soon as possible.
2. The College of Lake County 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 Office for Students with Disabilities.
4. Upon approval of a student request, the student and a staff member from the Office for Students with Disabilities 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 Office for Students with Disabilities at (847) 543-2055. 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.

Addressing Student Concerns

The Guide for Addressing Student Concerns is outlined within the Policies Governing Student Life on pages 28-32 of this catalog. ***This information is also posted throughout the college.***

Campus Police

A truly safe campus can only be achieved through the cooperation of all students, staff, and faculty. For more information, contact the CLC Police Department at (847) 543-2081. In Case of Emergency dial 5555 from any campus phone or dial 0 at the Lakeshore Campus. *Also, 911 can be dialed from any campus phone on the Grayslake and Lakeshore and Southlake Campuses.*

Grayslake Campus

Crime Prevention

Because many crimes are preventable, CLC's Police Department encourages students and employees to get involved in protecting themselves and their property and to take responsibility for their own safety and for the safety of others. The following campus safety measures have been put in place to help students and employees protect themselves

- Trained law enforcement officers are on duty during the day and evening hours.
- A twenty-four hour a day Campus Police personnel escort service is available by request at the Grayslake campus.
- In-house campus phones located throughout the Grayslake campus provide access to the police dispatcher and the department's enhanced emergency phone system, which immediately traces each on-campus call to provide the location of a caller in need, even if the call is disconnected.
- After-hour access to college facilities is allowed only on an escorted, sign-in basis, by prior arrangement.
- An electronic alarm system monitors a comprehensive campus-wide network of panic alarm and intrusion detection devices.
- Emergency call boxes are located in student parking lots 2 through 5 and staff lots 1, 7 & 8. Push the button to activate the system.

Other Services

The CLC Police Department also provides other support services to the college community. These include:

- Parking control, traffic enforcement, and preparation of accident reports
- Assistance to motorists with minor problems such as a dead battery or keys locked inside a vehicle

Lakeshore Campus

Campus Security Precautions

During both the day and evening hours, there is a trained police officer on duty to provide regular campus safety and security protection. In addition, these law enforcement officers investigate reported crimes and provide safety and security programs to the campus community.

Parking

Parking for student, staff, and visitors is available in the multi-story parking facility located at 30 N. Sheridan Road, just east of the south building. Two hundred spaces, on levels two through four, are reserved for the College's use. Only vehicles displaying a valid CLC permit will be authorized to park in these spaces. Each space is designated as CLC parking only.

Other Services

- Escorts for students to vehicles are available upon request during both day and evening hours.

- Assistance to motorists with minor problems, such as a dead battery or keys locked inside a vehicle, is provided during both day and evening hours, upon request.
- For the convenience of students, staff, and visitors with temporary physical challenges that restrict their ability to walk across campus, a motorized scooter is available by request at the South building reception desk.

To Report a Crime

Contact the reception desk on the first floor of the South Building and/or the CLC Police Department near the rear stairs by the parking garage access. Emergency help is available by dialing 0 or extension 6255 from campus phones. The reception desk staff is trained in emergency assistance procedures.

Southlake Campus

Campus Security Precautions

During the evening hours, there is a trained police officer on duty to provide regular campus safety and security protection. In addition, this law enforcement officer investigates reported crimes and provides safety and security programs to the campus community.

Other Services

- Escorts for students/staff to vehicles are available upon request
- Assistant for motorists with minor problems such as a dead battery or keys locked inside a vehicle

To Report a Crime

Contact the Campus and Student Support Center in V130 at ext. 6502 and/or the CLC Police Department in V132 at ext. 6532.

Parking Violation Appeal

Parking lots, signage, and regulations have been developed at the College of Lake County to comply with state laws and local regulations, and to provide for the safety of all persons on campus. The Campus Police department is empowered to enforce these laws and regulations and to levy fines when they are not followed.

Anyone receiving a citation for a violation of a CLC parking regulation has the right to appeal the citation, for a reasonable cause, with the Campus Police department. The appeal must be filed within five (5) business days of the date of issue of the citation or else the right to file an appeal is waived.

Appeal Steps

1. Complete and return the appeal form to the CLC Police Department (A-151) within five (5) business days of the date of the citation.
2. A date and time will be scheduled for an administrative hearing or to discuss the appeal by telephone.

Services for Students

Children's Learning Centers

CLC offers affordable child care at its nationally accredited Child Care Centers on both the Grayslake and Lakeshore campuses. A highly qualified staff provides day and evening care for 2 to 6 year olds with school-age care provided for children up to 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 Campus 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 free or at a greatly reduced cost. Confidential care is assured.

Health education programs and 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. Low-cost health insurance is available to those students (and their dependents) registered for nine or more credit hours. Information about each of these services can be obtained in the Health Center.

The Health Center is located in A140, across from the Campus Police office on the Grayslake Campus. Hours are Monday through Thursday from 8:00 a.m. – 10:00 p.m. and Friday from 8:00 a.m. – 4:30 p.m. when classes are in session. The Health Center is closed on Saturday and Sunday. For appointments, call (847) 543-2064.

Career Center

The Career and Placement Services office, located in the Job Center Building E-101, offers career and job search assistance to all CLC students and alumni as well as to Lake County residents who are seeking full-time, part-time, or seasonal employment. Services include individual and group assistance in areas such as career assessment and exploration, job search techniques, resume writing, and interviewing. If individuals wish to explore these topics at their own pace, they may also utilize the many print, video, and multimedia resources available in the center. Hours of operation are Monday through Thursday from 8:00 am to 6:30 pm, and Friday from 8:00 am to 4:30 pm.

Employment opportunities received by the Career and Placement Service office are entered into the college central network database. Job seekers may visit college Central Network at collegecentral.com/clcillinois to register and

view the employment opportunities available. For more information, call (847) 543-2059.

Career and Placement Services offers the following ongoing programs:

Career Counseling Services

Career Counseling Services help job seekers who are exploring their first career, considering a career change or recovering from a downsized industry. Career counselors provide career assessment testing, career planning, job search assistance, resume review, mock interviewing and educational workshops. These services are free of charge to College of Lake County students, alumni and Lake County residents. Counselors are available at the Grayslake and Southlake Campuses. For more information, call (847) 543-2059.

Cooperative Education

The Cooperative Education program (CO-OP) offers students the opportunity to earn college credit for new learning in a work situation and integrates classroom theory with practical work experience. A new position or your current job may qualify as a CO-OP work position if it is related to your field of study and provides a new learning experience.

The Educational Work Experience Work Component is a program that integrates classroom theory with practical experience learned on the job. As a requirement of the Work Component of EWE, a student must also 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
- Stress and Time Management
- Re-Careering
- Contemporary Issues in the Workplace
- Taking Charge and Moving UP

Prerequisites for CO-OP

- At least 9 credit hours earned (if CIT student, 12 credits must be earned in your Specialty Option)
- 2.25 GPA
- Approval to enroll from CLC faculty sponsor

For more information about internship opportunities, call (847) 543-2954.

Job Fairs

Career and Placement Services offers several types of Job Fairs. Mini Job 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. The Jobapalooza Job Fair is held in the spring for students and community youth between the ages of 15-21. The fair includes employers, resources, and

training opportunities. The JobMarketPlace Job Fair is held between the spring and summer academic semesters and includes pre-job fair job seeker workshops. It is attended by over 100 employers and 2,500 job seekers. For more information, call (847) 543-2059.

Service-Learning

Service-learning integrates meaningful community service into a course in a manner that supports and enhances instructional objectives. It promotes a greater understanding of the community while reinforcing concepts learned in class. Contact the Coordinator of Service-Learning and Cooperative Education at (847) 543-2058, or stop by the Placement Services Office in the Job Center building on the Grayslake Campus for more information about service-learning opportunities available at CLC.

Student Employment/Work Study

The CLC Student Employment Program is administered by Career and Placement Services. The college's Financial Aid Office notifies student who are eligible for Federal Work Study with a Financial Aid Notification Letter. Once a student has been notified and accepts his/her award, Career and Placement Services assumes the primary role of administering the program and handles all aspects of the employment process for students. Career and Placement Services recognizes the need for community outreach and welcomes the opportunity to form partnerships with on-and off-campus organizations and departments. For more information, call (847) 543-2408.

Volunteer Opportunities

CLC offers many options for those interested in volunteering. Each semester the college conducts a volunteer fair for people interested in meeting with representatives from Lake County organizations. In addition, the college participates in Make a Difference Day, which is a nationwide day of volunteering, held annually on the last Saturday in October. Volunteer opportunities and agency contact information is available in the Career and Placement Services office.

EWE 121 Introduction to Volunteerism is a one-credit course that explores the value of community service and service-learning. CLC sponsors a Volunteer Fair twice a year where students can explore a variety of volunteer opportunities. For more information, call (847) 543-2954.

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 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 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 which 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 e-mail; 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.

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

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 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 Policy describes student rights as well as examples of misconduct inconsistent with the academic environment at CLC. It lists procedures to respond to such behaviors, and details possible sanctions that are intended to educate and safeguard members of the college. If you have any questions about this Policy, please contact the Office of the Vice President, Student Development.

I. 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. Following is a non-exhaustive list of students' rights:

- A. To participate through the Student Government Association in the formulation and review of college regulations and policies directly affecting them.
- B. To learn in an environment that is free from discrimination and harassment based on race, color, religion, sex, national origin, age, marital status, sexual orientation, or disability. Students may report discrimination or harassment as explained in the Discrimination and Harassment Complaint Procedure. Students may report concerns about academic adjustments or modifications as explained in the college catalog Services for Students with Disabilities section.

- C. To learn in an environment that is free of physical abuse or threats thereof. Students may report physical abuse or threats as explained in this policy.
- D. To the rights granted by the Family Educational Rights and Privacy Act (FERPA), including the right to inspect one's educational records and challenge inaccurate or misleading records. Students may challenge the accuracy of their educational records as explained in the Notification of Rights under FERPA for Postsecondary Institutions published in the college catalog.
- E. To address academic concerns. Students may address academic concerns as explained in the Addressing Student's Academic Concerns guidance in the college catalog. Students who have been suspended for not meeting the academic grade point average requirement may appeal their suspension as explained in the Academic Appeal Procedure. (Refer to Board Policy 426 – Addressing Students' Academic Concerns)
- F. To the freedom of speech and the freedom of assembly.

II. Student Responsibilities

By enrolling in the college each student agrees to conduct himself/herself in a manner consistent with the college's educational purpose and its policies and procedures. If this obligation is not fulfilled by the student, the college may take appropriate disciplinary action. The college may impose sanctions on a student whenever he or she commits, attempts to commit, or contributes to conduct that violates this policy on college premises, on a college extension site, at a college-sponsored activity or event, or off-campus conduct that (1) adversely affects the health, safety, or security of any member of the college community or (2) adversely affects the interests of the college.

III. Student Violations

Conduct that violates this policy includes, but is not limited to, the following:

- A. Acts of dishonesty, including but not limited to the following:
 1. Furnishing false information to any college official, faculty member or office.
 2. Forgery, alteration, or misuse of any college document, record, or instrument of identification.
 3. Tampering with the election of any college recognized student organization.
 4. Academic dishonesty as defined in the Academic Integrity guidelines (see On-Line Learning Management System).
 5. Violation of copyright and/or failure to acknowledge the source of material submitted for evaluation or publication.
- B. Speech and Related Behavior:
 1. Any face-to-face communication that is likely to provoke a violent reaction from the intended recipient.
 2. Behavior by any student that materially disrupts the educational pursuits of others, invades the rights of others, or otherwise disrupts the regular and essential operation of the college.

3. Participation in a campus demonstration which:
 - (a) Disrupts the normal operations of the college and infringes on the rights of other members of the college community;
 - (b) Leads or incites others to imminent lawless action or which is likely to incite such action;
 - (c) Disrupts the scheduled and/or normal activities within any campus building or area.
4. Behavior by any student that disrupts or obstructs the research, administration, disciplinary proceedings, other college activities, including its public-service functions.
5. Participation in, making claims of, or claiming responsibility for terrorist activity (such as threats of bombs, biological weapons, et al.), whether in fact or as a hoax.
- C. Attempted or actual theft of and/or damage to property of the college, or property of a member of the college community.
- D. Aggressive conduct or other conduct that threatens or endangers the health or safety of any person;
- E. Sexual harassment and/or actions of a sexual nature, which creates an intimidating, hostile, or offensive working or educational environment.
- F. Failure to comply with directions of college officials or law enforcement officers acting in performance of their duties.
- G. Unauthorized possession, duplication or use of keys to any college premises or unauthorized entry to or use of college premises.
- H. Violation of published college policies, rules or regulations.
- I. Violation of federal, state or local law.
- J. Use, possession or distribution of narcotic or other controlled substances except as expressly permitted by law.
- K. Public intoxication and/or use, possession or distribution of alcoholic beverages except as expressly permitted by the law and college regulations.
- L. Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals.
- M. Obstruction of the free flow of pedestrian or vehicular traffic on college premises or at college sponsored or supervised functions.
- N. Conduct that is disorderly, lewd, or indecent; breach of peace; or aiding, abetting, or procuring another person to breach the peace.
- O. Misuse of the Technology System, which may occur through use of or obtaining access to the Technology System from any computer whether or not owned or operated by the college. Any violation of the Responsible Use of Information Technology Policy may be sanctioned under this Policy.
- P. The college may discipline a student whose personal web site or other off-site activity involving electronic technology causes, or can reasonably be expected to cause, a substantial disruption of the college environment, without regard to whether that activity or disruption involved use of the Technology System.
- Q. Abuse of the Judicial System, including but not limited to:
 1. Failure to obey the summons of a judicial body or college official;
 2. Falsification, distortion, or misrepresentation of information before a judicial body;
 3. Disruption or interference with the orderly conduct of a judicial proceeding;
 4. Institution of a judicial proceeding knowingly without cause;
 5. Attempting to discourage an individual's proper participation in, or use of, the judicial system;
 6. Attempting to influence the impartiality of a member of a judicial body prior to, and/or during the course of, the judicial proceeding;
 7. Harassment (verbal or physical) and/or intimidation of a member of a judicial body prior to, during, and/or after a judicial proceeding;
 8. Failure to comply with the sanction(s) imposed under the Student Rights and Responsibilities Policy;
 9. Influencing or attempting to influence another person to commit an abuse of the judicial system.
- R. Any conduct that substantially disrupts or is likely to substantially disrupt the educational mission or orderly operation of the college.

IV. Disciplinary Records

Disciplinary records will be maintained by the college as part of the student's education record in accordance with the Family Educational Rights and Privacy Act (FERPA) 20 U.S.C. §1232g. If a student is found not responsible for alleged misconduct under the Student Rights and Responsibilities Policy, the record regarding a complaint filed will be removed from the student's education record. If a student is found responsible of misconduct or accepts responsibility for misconduct, the disciplinary record may be maintained in the student's education record. Separate disciplinary records may also be maintained by the Vice President for Student Development apart from the student's education record.

V. Disciplinary Procedures

The disciplinary procedures are defined in a separate document titled, Student Rights and Responsibilities Procedures. Copies of these procedures may be obtained from the office of the Vice President of Student Development, the CLC website (Intranet link) and CLC blackboard (On-Line Learning Management System). Any revisions or modifications to the disciplinary procedures will require the review and approval of the college's Governance Coordinating Council (GCC). The following provisions are contained in the disciplinary procedures:

Student Rights and Responsibilities Procedures

- I. Disciplinary Proceedings
 - A. Reporting Student Misconduct
 - B. Vice President for Student Development Determination

- C. Informal Resolution/Mediation
 - D. Judicial Board Determination
 - E. Procedure for Appeal of Decision
- II. Sanctions
- A. Warning
 - B. Reprimand
 - C. Restitution for Damages
 - D. Behavioral Contract
 - E. Probation
 - F. Suspension
 - G. Expulsion
- III. Definitions
- IV. Interpretation and Revision

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 forty-five 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 to parents if the student is dependent for Federal income tax purposes, 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 Avenue, SW
Washington, DC 20202-4605

At the College of Lake County, directory information consists of a student's name, address, e-mail, 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.

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

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 B201, at the Grayslake campus, (847) 543-2096.

Addressing Students' Academic Concerns

Students shall have a procedure by which they can address their academic concerns. The evaluation shall be conducted in accordance with written procedures which shall be distributed to all faculty.

1. Within six months from the time the action occurred which caused the student a concern, the student discusses the concern and if possible resolves the matter with his or her instructor. If the concern is not immediately resolved and the student wishes to bring his/her concern to the appropriate Dean, the student will provide the Dean with a written statement of the concern and his/her position.
2. At the student's request, the Dean will meet with the instructor and the student. After meeting with the student and instructor, the Dean reviews the concern which may involve consulting with other staff members appropriate to the situation, such as the Vice President of Student Development, counselors, the student's other instructors, the Learning Assistance Center staff, or other Deans. The Dean also has the instructor write a statement of his/her position, including supporting rationale. Within 15 days

of meeting with the student, the Dean renders a decision, which includes his/her rationale for the decision. The Dean will send his/her final decision to the student in writing with a copy to the Vice President for Educational Affairs.

3. If the student wishes to appeal the Dean's decision, a formalized process is instituted by the student submitting a written statement indicating his/her concern, the desired outcome and the rationale, and supporting documentation to the Vice President for Educational Affairs. Upon receipt of the student's concern, the Vice President for Educational Affairs will collect necessary documentation including instructor's statement from the appropriate Dean. The Vice President for Educational Affairs will analyze the supporting documentation and develop his/her final decision. The Vice President for Educational Affairs will have 15 days to review the concern and respond to the student in writing.

Discrimination and Harassment Complaint Procedures

Discrimination and Harassment Policy

The College, in its commitment to equal rights, will ensure that students may work, learn, and study in an environment that is free of illegal harassment. Harassment infringes upon mutual respect in work and academic relationships and causes serious harm to students in the pursuit of their future careers and success.

In accordance with the statutory provisions included in Title VII of the Civil Rights Act, Title IX of the 1972 Education Amendments, and all other applicable federal and state laws, it is the policy of the College of Lake County not to discriminate on the basis of a person's race, color, religion, sex, national origin, age, marital status, sexual orientation, or disability in any of its educational programs, activities, or employment policies.

The College seeks to prevent harassment from occurring. College policies and procedures have been established for the investigation and resolution of complaints. Findings of harassment may result in discipline, including suspension or dismissal.

Prohibited Harassment

The College prohibits harassment and discrimination on the basis of age, disability, national origin, ancestry, race, color, religion, creed, sex, sexual orientation, or marital status, or in retaliation for having made a prior discrimination or harassment complaint. Harassment is unwanted behavior directed toward an individual based on one or more of the foregoing designated characteristics.

Discrimination and Harassment Complaint Procedure

Any student who believes that he or she has been discriminated against or harassed may follow either an informal or formal procedure without fear of recrimination. A prompt and confidential investigation will be provided, to the extent possible.

Step 1 - Any student believing he or she has been a victim of discrimination or harassment should discuss their concerns with the Vice President for Student Development. The Dean, or a director, academic dean, or specifically designated person may make an effort to resolve the matter informally.

Step 2 - If the matter cannot be satisfactorily resolved at step 1, the student must file a formal written complaint with the Vice President for Student Development. The mailing address for such complaints is: Vice President for Student Development, College of Lake County, 19351 W. Washington Street, Grayslake, IL 60030-1198.

A written complaint must be filed within sixty (60) days of the alleged incident of discrimination or harassment. In addition, written complaints must be signed, and to the extent possible, should state in detail, the time, place, pertinent facts, and circumstances of the alleged discrimination or harassment along with any witnesses. The Vice President for Student Development will notify the accused of the complaint and will conduct a thorough investigation of the complaint within thirty (30) days of its receipt. The time period may be extended for justifiable reasons or by mutual consent. The complainant and the accused shall be informed of any extensions.

Step 3 - Upon completion of the investigation, the Vice President for Student Development shall make a written statement of finding detailing the final outcome of the investigation. If there is substantial evidence that discrimination or harassment did occur, the Vice President for Student Development may recommend any reasonable and appropriate remedy for the complaining party.

Employees discriminating against students will be subject to discipline under appropriate College of Lake County employment policies and, as applicable, collective bargaining agreements. Depending on the severity of the incident, disciplinary action against an offending employee may include discharge. Students discriminating against other students will be subject to discipline under the Students' Rights and Responsibilities policy. The College may take additional corrective actions to remedy any instances when discrimination is determined to have occurred.

Step 4 - If the complainant is not satisfied with the outcome of the investigation conducted by the Vice President for Student Development, he or she may request in writing that the matter be reviewed by a President's panel. The complainant must make this written request within ten (10) days of the findings in step 3.

Student Development / Counseling and Advising

The College President shall appoint an impartial panel consisting of:

- One college administrator
- A vice-president
- One faculty member

The complainant shall select one of three possible college administrators offered by the President.

The complainant shall select one of three possible faculty members offered by the President.

The President's panel shall arrange to meet with the complainant as well as other principals associated with the complaint. Following such a meeting (or meetings), the President's panel shall present its findings in writing to the President for final action. The procedures in this step shall be accomplished within thirty (30) working days of the date the written appeal is received by the President. Time limits may be extended by mutual consent.

General Provisions

Because of their sensitive nature, complaints of sexual harassment will be handled with the utmost discretion and confidentiality.

Retaliation against individuals who invoke the procedures set forth herein is strictly prohibited.

Illinois Clean Air Act

Smoking and the use of tobacco products are prohibited in all college buildings and vehicles.

Grayslake Campus

Smoking and the use of tobacco products are only allowed outside the south patio entrance on the lower level C wing, the entrance west of the main lobby, the south entrance between the A and LRC wings, the LRC wing lower level entrance, in the shelter outside the southeast entrance to the Job Center of Lake County, and in parking lots.

Lakeshore Campus

Smoking and the use of tobacco products are allowed only in designated areas outside the Lakeshore Campus buildings.

Southlake Campus

Smoking and the use of tobacco products are allowed only at the following designated areas: outside of entrance doors V3 (southwest side of V building) and V8 (northwest side of V-building).

Student Activities

Student activities provide educational, social, cultural, and recreational opportunities for students, staff, and members of the community. Moreover, involvement in student activities is recognized by many employers as an asset, and they encourage students to develop skills obtainable through participation 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 the Student Government, the Program Board, the student newspaper (*Chronicle*), the radio station, the literary magazines (*Willow Review* and *Prairie Voices*), the Prairie Spirits Dance Theatre, the Child Care Center, the Substance Abuse Prevention Center, and all of the college commissions. There are also more than thirty-five special interest clubs.

Student life at CLC is further enhanced through co-curricular activities. For those interested in the arts, CLC has a theatre program, a concert band, a jazz ensemble, singing groups, a dance theatre, poetry readings, a performing arts committee, art exhibits, and speakers on a variety of contemporary issues.

The CLC Forensics and Debate Team competes in individual Public Address and Interpretation of Literature events in state and national tournaments.

Student organizations can serve as a laboratory where a student can spend as much time as desired planning, organizing, and implementing programs and services for students and the community. For additional student involvement opportunities, stop by the Student Activities office, room C101, or call (847) 543-2289 or (847) 543-2280.

Student Government

Students may affect College-wide policies, procedures, or actions concerning student life by directing their concerns to or by participating in Student Government and College-wide governing commissions.

Contact the Assistant Director of Student Life, C101, (847) 543-2280 for assistance in sorting out options and identifying chairpersons.

Intercollegiate Athletics and Intramural Recreation

Intercollegiate athletics and intramural recreation are an important part of student life at the College of Lake County. CLC teams compete in twelve 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 Collegiate Conference. The College is noted for its excellence and integrity in athletics. The CLC intramural and recreational programs provide a variety of fitness and wellness activities for students, faculty, and staff. Fitness membership passes can be purchased by the general public. For more information, contact the Office of Athletics and Physical Activities at (847) 543-2046.

Academic Assistance

The Learning Assistance Center (LAC) provides academic support to CLC students with individual needs through testing, modular instruction, and tutoring. These services are available at the Grayslake, Lakeshore and Southlake campuses.

Testing Center

The Testing Center is a centralized testing location where students can complete the GED, ACT, CLEP, DSST, Academic Proficiency Test (APT), teleweb testing, online testing, make-up testing, and correspondence testing as well as career and interest inventories. For more information, call (847) 543-2076 or (847) 543-2457 for the Grayslake Campus; (847) 543-2120 or (847) 543-2121 for the Lakeshore Campus; or (847) 543-6544 for the Southlake Campus.

Modular Instruction

Students wishing to improve their basic writing or mathematics skills 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

Tutoring

Free tutoring, either one-on-one or in a group setting if arranged in advance, is available in the Math Center and the Writing Center at the Grayslake, Lakeshore and Southlake Campuses for students who need assistance with writing assignments or with mathematics, science and computer information systems courses in which they are enrolled. Limited tutoring is also available for additional CLC courses, as well. Students may drop-in for tutoring. To obtain tutoring schedules for each campus contact the Math Center at (847) 543-2449 or the Writing Center at (847) 543-2452.

Students with Disabilities

The Office for Students with Disabilities, located in the Learning Assistance Center of the Grayslake Campus 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 24 of the catalog.

Academic Computing

The academic computing facilities at CLC include a wide variety of labs and equipment designed to meet the needs of the student population. Many divisions within the College maintain independent lab facilities specifically suited to the issues encountered in each academic discipline. In addition, there are a number of labs located at the Grayslake, Lakeshore and Southlake campuses that are available for use by the general student population. In addition to the various software resources provided by the academic divisions, students also have access to the internet in many of the labs. The number of

labs in each division is as follows:

- Biological and Health Sciences - 4
- Business - 13
- Communication Arts, Humanities & Fine Arts - 6
- Engineering, Math, and Physical Sciences - 9
- Library - 4
- Lakeshore Campus - 5
- Social Science - 1
- Southlake Campus - 5

Aside from these labs, there are a number of individual instructional support workstations located in many areas throughout the College. Such diverse disciplines as Health Information Technology, Biology, Phlebotomy, Chemistry, Physics, Refrigeration and Air Conditioning, Computerized Numerical Control, and Automotive Maintenance, use these facilities to provide enhanced instruction to CLC students.

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, Mac and UNIX. 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 Academic Technology and User Services Department at (847) 543-2074. Students may also call the Help Desk at (847) 543-2052 for assistance. They are available 24 hours a day, seven days a week.

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

A student who has 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 G.P.A.:

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

The Office of Admissions and Records 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.

Satisfactory Academic Progress

Satisfactory academic progress is measured by two standards: 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 satisfactory academic progress 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% of the class length has passed. Excluded from these standards are courses in Adult Basic Education (ABE), Adult Developmental Education (ADE), 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 remedial 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; remedial 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. The GPA and Course Completion Standard of progress for students receiving financial aid is slightly higher due to federal regulations. Please see page 20 for more details.

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 semester hours.

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 placed on academic restriction are notified that, in their next term at the College, they may only enroll in the number of semester hours successfully completed during the previous term, or they may enroll in only one course for credit, depending on whichever option yields the most semester hours.

Students on academic restriction are required to meet with a Counselor and may not register for courses until they have done so.

A student's financial aid is discontinued when he or she is initially placed on academic restriction.

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 (WPDI) courses.
2. Students have the right to appeal their suspension to the Dean of the Counseling, Advising and Transfer Center.

Students Who Return From Academic Suspension

Students who have completed a one semester suspension are limited in the initial semester of their return to enrolling for no more than 13 semester hours.

Students Who Were Academically Suspended, Who Have Returned To CLC, and Who Again Are Placed On Academic Restriction

1. These students are suspended for the following fall or spring semesters (summer term excluded).

2. To enroll again students must petition and receive approval from the Dean of Counseling, Advising and Transfer Center.

Academic Standards Appeal Procedure

1. Purpose

Students who have been suspended for not meeting the academic grade point average requirement may appeal their suspension to the Dean of the 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 schedule an appointment with a counselor.
- b. Within five (5) working days, the student must complete an Academic Suspension Appeal Form and return it to a counselor.
- c. The Academic Suspension Appeal Form will be forwarded 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 Vice President for Student Development within five (5) working days of the Dean's decision. The 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.

Forgiveness Option

Under extenuating circumstances, students may petition for a **one-time** forgiveness of up to 15 hours of prior D or F 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 semester 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.

This policy is not intended for use by graduates.

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

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

Declaring or Changing Program of Study

Students may declare or change their program of study by contacting the Office of Admissions and Records in B101 on the Grayslake Campus. Any changes to the program of study should be planned with an academic advisor or counselor. The deadline for changing a program of study for the current academic term is the mid-term date of the term. Any change request received after the mid-term date 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 20 for information on programs that are ineligible for financial aid.

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 that for 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 register by contacting the Office of Admissions and Records during office hours. Registration during off hours can be done through the website; however, the student must then contact the Office of Admissions and Records during regular office hours to change their enrollment status to audit. 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 page 17 of this catalog for more information.

Credit-by-Exam

The College of Lake County provides opportunities to earn credit for prior learning experiences through the taking of exams. A student may opt for credit-by-exam for a number of reasons, including his or her own information or college credit, or for an employer, a certifying agent, or a professional licensing agency. **A student should check the transfer school to determine its policy toward credit-by-exam.**

The College of Lake County Board policy states that credit-by-exam 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; and
- not to count towards the fulfillment of the 15 semester hours general residency requirement for the associate degree.

There are four types of credit-by-exams available to students enrolled at CLC: Advanced Placement (AP), College Level Examination Program (CLEP), DSST, and Challenge Exams. For some courses there may be more than one type of exam available for receiving credit. For information about specific credit, passing scores, and examination requirements, consult with one of the following offices:

- Admissions and Records, Room B101, (847) 543-2061.
- Counseling Center, Room C110, (847) 543-2060.
- Learning Assistance Center, Testing Center, first floor of the Library, (847) 543-2076.
- Biological/Health Sciences Division, Room C140, (847) 543-2042.
- Business Division, Room T102, (847) 543-2041.
- Communication Arts, Humanities & Fine Arts Division, Room B237, (847) 543-2040.
- Engineering, Mathematics and Physical Science Division, Room T102, (847) 543-2044.
- Learning Assistance Center at Lakeshore Campus, Room N203, (847) 543-2120.
- Learning Assistance Center at Southlake Campus, Room V212, (847) 543-6544.
- Social Science Division, Room A244, (847) 543-2047.
- Cooperative Education Office, Job Center of Lake County Room E101, (847) 543-2058.

Students who plan to receive credit-by-exam scores through AP, CLEP, and/or DSST must ask the appropriate testing service to send an official transcript of their scores to the Admissions and Records Office at the College of Lake County. The College Board offers AP and CLEP exams. Prometric offers the DSST Exams.

Credit earned via credit-by-exam has no effect on a student's grade point average.

Advanced Placement (AP)

The College of Lake County recognizes AP test scores for the purposes of placement into advanced level courses and/or

for college credit. 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)

CLEP (College Level Examination Program) is a national program sponsored by the College Level Examination Board. Each individual college determines which CLEP tests it will accept for credit and the amount of credit it will award.

The CLEP examinations cover material taught in five basic areas: English composition and literature, science and mathematics, social sciences and history, foreign languages, and business. Students may find more information about CLEP exams through the College Board's website www.collegeboard.com and choose web links for students and College Board Tests.

The College of Lake County grants CLEP credit only to students enrolled at CLC. Results of CLEP exams may also be sent to another school at which a student is enrolled for the purposes of credit recognition.

CLEP tests are offered by appointment at several College of Lake County locations: the Grayslake Testing Center (847) 543-2076 or (847) 543-2547; Great Lakes Center (for active military personnel) (847) 689-0199; Lakeshore Campus (847) 543-2120 or (847) 543-2121; and Southlake Campus (847) 543-6544. Please call the different testing locations for specific testing schedules, registration procedures and other information. The test fee is \$77 per test plus \$20 test administration fee (\$97 total) as of July 1, 2010. Fees are subject to change.

College of Lake County is a military-friendly test center. Members of the U.S. Armed Forces do not have to pay any test fee or test administration fee if taking CLEP and DSST exams at the Great Lakes Center because the exams are funded by Defense Activity for Non-Traditional Education Support (DSST). However, members of the U.S. Armed Forces taking CLEP and DSST exams at the Grayslake, Lakeshore and Southlake Campuses must pay the \$20 test administration only. Appropriate military identification is required for testing.

DSST

DSST (formerly known as DANTES Subject Standardized Tests) program is a national credit-by-exam program offered by Prometric. Each individual college determines which DSST tests it will accept for credit and the amount of credit it will award.

The DSST examinations cover material taught in six basic areas: business, sciences, humanities, mathematics, social sciences, and education. Students may find more information about DSST exams through the website www.getcollegecredit.com.

The College of Lake County grants DSST credit only to students enrolled at CLC. Results of DSST exams may also be sent to another school at which a student is enrolled for the purposes of credit recognition.

DSST tests are offered by appointment at several College of Lake County locations: the Grayslake Testing Center (847) 543-2076 or (847) 543-2547; Great Lakes Center (for active military personnel) (847) 689-0199; Lakeshore Campus (847) 543-2120 or (847) 543-2121; and Southlake Campus (847) 543-6544. Please call the different testing locations for specific testing schedules, registration procedures and other information. The test fee is \$80 per test plus \$20 test administration fee (\$100 total). Fees are subject to change.

Credit for High School Vocational Courses

This articulation program provides students who have completed high school vocational programs the opportunity to receive college credit. The curriculum in the secondary program has been compared to introductory courses in some of the career programs. Articulation agreements are for students who have completed various programs taught at Lake County High School Technology Campus and several high schools in Lake County. Copies of the specific program agreements are on file in the Assistant Vice President for Educational Affairs office, C215, (847) 543-2635.

Challenge Exams (CH)

Challenge exams are available for students who possess prior knowledge of a subject area in a specific course. Challenge exams are not available for all courses and are offered at the discretion of the discipline/program faculty. Students may not take a challenge exam for a course in which they were previously enrolled and received a grade inclusive of I, W or X grades. 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.

The fee for each challenge exam is \$12 per credit hour with a minimum fee of \$36 per course. Students interested in the challenge exam process should contact the appropriate division office below:

- Biological/Health Sciences Division, Room C140, (847) 543-2042
- Business Division, Room T102, (847) 543-2041
- Communication Arts, Humanities & Fine Arts Division, Room B237, (847) 543-2040
- Engineering, Mathematics & Physical Sciences Division, Room T102, (847) 543-2044
- Social Science Division, Room A244, (847) 543-2047

Course Load

The normal course load for a full-time student is from 12 to 18 semester hours during the fall and spring semesters and from 6 to 9 semester hours during the summer session. Special permission from a Counselor must be obtained for

more than 18 semester hours during the fall and spring semesters or for more than 9 semester hours during the summer session.

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 semester credit hour taken, one hour for the formal class meeting and two hours for outside study and homework.

The number of semester 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 will be administered at regularly scheduled times in accordance with an officially published examination schedule.

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

* See page 38 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, 108, 109; academic ESL courses such as ELI 103, 104, 105, 106, 107, 108.)

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

A student who finds it impossible to complete the work by the end of the term because of a justifiable reason such as illness may be able to take an incomplete (I) for the course. Incompletes shall be given at the discretion of the instructor. The student, the instructor, and the academic dean shall sign a verification form which will include a justifiable reason for assigning the incomplete and will provide for a final grade to be recorded 120 days from the end of the semester or session. The final grade shall be A, B, C, D, or F. An I becomes an F at the end of the one hundred-twenty day period 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 academic dean. Under such circumstances students should contact the appropriate division office.

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

In-district students who wish to pursue programs of study (certificates and associate in applied science degrees) not available at the College of Lake County may do so by exploring joint agreements. CLC has joint agreements with neighboring community colleges for a number of programs (certificates and associate in applied science degrees). Through joint agreements, CLC students may attend another community college at the other school's in-district rates. A joint agreement is valid for one academic year and will need to be renewed upon the start of each academic year. All joint agreements are listed on pages 175-178 of this catalog.

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 thirty 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. Students who wish to apply for a joint agreement or a chargeback may do so by contacting the Office for Educational Affairs at (847) 543-2412.

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

International Studies

The College of Lake County offers a variety of international courses and short-term international study courses designed to enhance a student's academic experience from a global perspective. These experiences contribute to an understanding of the relationships between the cultural, economic, and political systems of other nations as well as our own. The College also participates in international study programs that offer students an opportunity to reside and study in another country for an extended period of time. Contact Dr. Li-hua Yu, coordinator of International Education, at (847) 543-2741 for more information.

Resident Foreign Study Program

Studying abroad can be a life-changing experience. It allows students to broaden their understanding of the academic disciplines, and most importantly, learn more about other countries and cultures to gain perspective about how the United States is perceived by others.

The College of Lake County is a member of the Illinois Consortium for International Studies and Programs (ICISP), a group of Illinois community colleges and universities committed to broadening the global experience of community college students. The consortium has affiliations with Canterbury Christ Church University College in Canterbury, England and Salzburg College in Salzburg, Austria since the early 1990s. Recently, the consortium has established new partners with Xi'an International University in Xi'an, China; St. Patrick's College in Carlow, Ireland; and the International College of Seville in Seville, Spain. The consortium continues to explore new opportunities for CLC students for future study abroad. These affiliations enable CLC students to study at these institutions during the fall and spring semesters. The curriculum 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. Students may also seek out study abroad programs in other countries through the Council for International Educational Exchange (www.ciee.org) or the College Consortium for International Studies (www.ccisabroad.org).

Prior to enrolling in a study abroad program, students should discuss their plans with an academic advisor to ensure that their selected courses will satisfy CLC and transfer requirements. Requirements for admission to most international study programs include completion of 30 hours of college credit with a minimum GPA of 2.75 and two letters of reference. For more information, contact the International Education Coordinator Dr. Li-Hua Yu at (847) 543-2741 or via e-mail at lyu@clcillinois.edu.

Field Study

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 biology, geology, history, foreign languages, and humanities courses to locations such as the Rocky Mountains, Europe, Asia or Latin America. See the current class schedule for more information about which field study or travel 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 via e-mail at nschevera@clcillinois.edu.

Teleweb Courses

Several courses in business, social science, communication arts, physical science, humanities, and physical education can be taken by television. This delivery system allows students to work on courses at home on video tape and/or DVD. For more information about teleweb courses, call the Academic Technology and Users Services Department at (847) 543-2597.

Online Options

The College of Lake County allows students to take courses from the convenience of their own homes using the Internet. Students may take many courses towards the AA, AS and AAS degrees 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: <http://clconline.clcillinois.edu>.

Illinois Virtual Campus

CLC is one of more than 70 colleges and universities participating in the Illinois Virtual Campus (IVC), an online catalog of services and distance education opportunities by Illinois community colleges and four-year universities. This includes both a listing of courses, programs and resources available online.

The IVC can be accessed on the Internet at www.ivc.illinois.edu.

To learn more about IVC resources, please contact Kris Dahl in the Counseling Center at (847) 543-2353 or kdahl@clcillinois.edu.

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 two semester 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.

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 Admissions Office and submit a "Request for Evaluation of Transfer Credit" form.

Transfer evaluations are based on the student's program of study at the College of Lake County. 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 over-all 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.

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 seventy percent of the AA/AS 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 advisor who will assist with verifying degree requirements for the specific senior college or university of the student's choice.

Transfer Credit Guarantee

As part of the College Graduate Guarantee, the College of Lake County guarantees to its transfer students that course credits from the AA, AS, AES and AFA degrees will transfer to participating Illinois public college and universities that have articulation agreements with the College of Lake County.

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

1. The student must complete the AA, AS, AES, or AFA 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 Assistant Vice President for University Transfer 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.

General Education Learning Outcomes

The goal of General Education is to prepare students to live responsible, productive, and creative lives. The General Education curriculum provides students with specific knowledge and skills and helps them develop commitments to lifelong learning, to a clear understanding of their relationships with nature and the larger social world, and to diligent cultivation of personal qualities such as fairness, civility, cooperation, curiosity, and open-mindedness. These broad, general habits of mind and proficiencies are developed by completing course work across the curriculum: communication arts, mathematics, humanities and fine arts, physical and life sciences, and social and behavioral sciences.

Students who successfully complete a degree at College of Lake County will exhibit competency in the following *learning outcomes*:

- **Critical Thinking:** use scientific methods and other modes of inquiry to define problems; access, evaluate, integrate, and document information; and develop logical arguments with evidence
- **Communication:** present information and ideas effectively in various contexts and formats (written and oral)
- **Quantitative Literacy:** use appropriate quantitative methods to compute, reason, and solve problems
- **Social and Cultural Awareness:** evaluate and interpret artistic, cultural, historical, and scientific events, texts, and trends within a global context
- **Technical and Information Literacy:** use contemporary technology and information literacy skills appropriately and effectively to support academic and job-related tasks.
- **Reading:** read critically using appropriate strategies

The emphasis and number of hours devoted to these learning outcomes varies significantly based on the type of degree. Accordingly, degree-specific criteria will be established to assess general education learning outcomes for the student population on an ongoing basis. The results of assessment will be used to improve instruction, curriculum, and, ultimately, student learning.

The Illinois Articulation Initiative — IAI

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

What is the “IAI”?

The IAI is a major statewide cooperative agreement that eases the transfer process of the completed Illinois General Education Core Curriculum among participating institutions. The 60 credits needed for the Associate in Arts, Associate in Arts-Secondary Mathematics and the Associate in Science Degree contain the General Education Core. Completion of the transferable General Education Core Curriculum at any participating college or university in Illinois assures transferring students that lower-division general education requirements for an associate degree have been satisfied.

How does IAI work?

As part of each CLC transfer degree program, students are required to take “general education” courses in the following areas: Communications, Mathematics, Humanities/Fine Arts, Physical/Life Sciences and Social/Behavioral Sciences. To complete the IAI, students will take a core of 37-41 credit hours selected from designated courses at CLC covering the five general education areas. After completing the required 37-41 credit hours, students will have completed the IAI General Education Core Curriculum (IAI GECC). Some CLC courses share an IAI number. Please note: When selecting courses for the IAI core, students must be sure that the IAI number (printed in bold) is only used ONE time.

There are several CLC courses that share an IAI number; however, IAI numbers may only be used one time each in the general education core. Students may use another course with the same IAI number as an elective only. The following is a list of courses that share IAI numbers:

- **F2 902:** ART 241, ART 242
- **F2 909:** HUM 222, HUM 223
- **H1 900:** ARA 222; CHI 222; FRN 222, 223, 224; GER 222, 223, 224; ITL 222, 223, 224; JPN 222; RUS 222; SPA 222, 223, 224
- **H3 911D:** ENG 129, ENG 247
- **H4 906:** HUM 127, PHI 122
- **L1900L:** BIO 123, BIO 141, BIO 161
- **P1902L:** CHM 120, CHM 121
- **S4900N:** GEG 122, GEG 123

For a complete list of IAI courses offered by the College of Lake County see pages 181-183.

IAI approved courses are subject to change. You may verify by one of the following: see your major advisor or a counselor or view www.iTransfer.org.

How does the IAI General Education Core Curriculum (GECC) fit an associate degree?

For students who are working on an AA, AAT-MATH or AS degree at CLC, the GECC will meet general education requirements. Students will need to complete the remaining hours of general electives (the academic courses for the designated/intended major) to complete the degree. To ensure full transferability of coursework, students should meet with an advisor.

Why should students complete the IAI General Education Core Curriculum?

With the IAI GECC completed, students may transfer the core (with or without an AA/AAT-MATH/AS degree) to any participating Illinois college/university. General education requirements will be considered met, unless there are mission directed courses required in the general education at the transfer institution.

Won't general education courses transfer anyway?

Most CLC courses will meet the requirements at the four-year college or university; however, many colleges and universities evaluate transcripts on a course-by-course basis, and some courses may not count towards the transfer school program. With the GECC, students meet the general education core at participating schools.

How can transfer students meet junior status?

To achieve junior status at a four-year college or university, transfer students need 60 transferable hours. Those students completing the IAI GECC and the CLC AA, AAT-MATH or AS will be juniors. If students choose to transfer with the 37-41 hour GECC completed, they will be ready to focus on the academic major courses at the transfer college or university.

What should students do when they have completed the GECC?

Once the General Education Core Curriculum (GECC) is completed, students must request CLC Admissions to do an audit of the GECC. Credit evaluators will review student transcripts to verify that all necessary courses have been taken and will indicate on the student's transcript that the IAI GECC is complete.

A few additional notes:

- Talk with an advisor or counselor about the IAI and how it can work for you.
- A list of participating colleges and universities is posted outside of the Counseling Office (C-110 at Grayslake and L-205 at Lakeshore). The list is not published in the CLC catalog because it is subject to change. To select CLC courses which fulfill the IAI, go to the IAI website at www.iTransfer.org, select **Illinois Articulation Initiative**, select **Students**, select **GECC Worksheet**.

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 (AA; AS; AES; AAT in Secondary Math; and AFA in Art, Music Education or Music Performance);
- B. Completion of at least 15.0 of the last 30.0 credit hours of instruction earned while in attendance at CLC. This does not include credit earned by examination or transfer. Servicemembers and their spouses enrolled in Servicemember's Opportunity College Program and navy personnel enrolled in the Navy Campus for Achievement Program may meet the graduation requirement regarding semester hours at the college by completion a minimum of 15.0 semesters hours if active duty assignment takes him/her to a base preventing attendance at CLC.
- 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 having a 2, 4 or 6 as a middle digit, (e.g. ENG 121). These middle digits represent transfer courses at CLC. An exception of up to six hours of courses with an odd middle-digit (1, 3, 5, 7 or 9) 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.
- 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 & 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. No more than four credit hours earned in PDS 120 or PDS 121 may be used as elective credit. 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.

CLC Courses that Share IAI numbers

There are several CLC courses that share an IAI number; however, IAI numbers may only be used one time each in the core. Students may use another course with the same IAI number as an elective only. See the list on pages 181-183.

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 below. 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 (AA/AS/AES/AAT/AFA) 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.

Associate Degree Transfer Programs

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 underrepresented 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.

International/Multicultural Education Courses

IAI APPROVED

Humanities and Fine Arts

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

Social Sciences

ANT	121, 221, 228
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International/Multicultural Education Courses

NOT IAI APPROVED

Humanities and Fine Arts

CMM	127
ENG	263, 264
HUM	124
PHI	129

Personal Development

PDS	123
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Social Sciences

EDU	224
GXS	121, 221, 229, 299
PSY	229
SOC	229

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 available in the Office of Admissions and Records.

Math Placement and Prerequisites for Math Courses

Depending on a student's program of study and level of skill in mathematics, s/he 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 s/he meets the prerequisite or if additional coursework is required. The flow chart below may help in planning. Where a student starts in the sequence will depend upon the prerequisites s/he meets and/or how s/he 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.

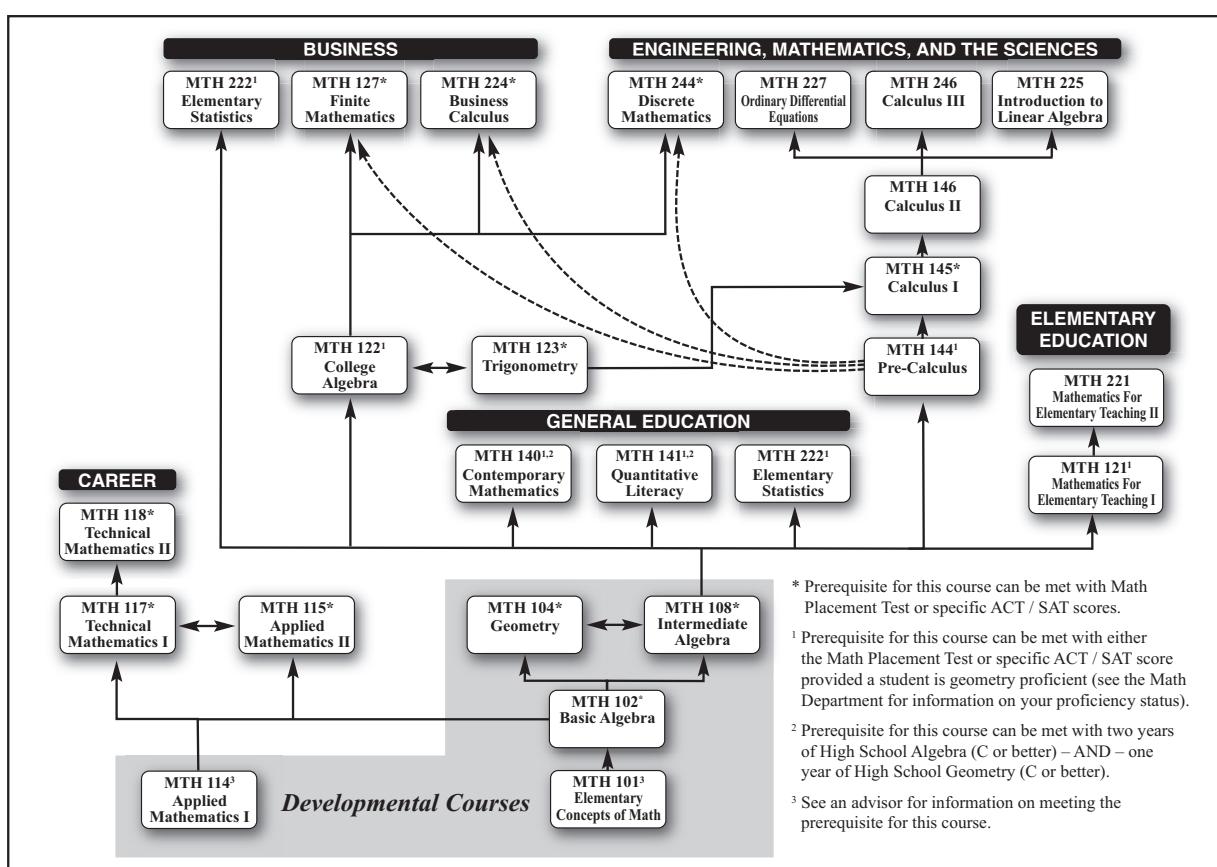
- 1) **Basic Algebra Readiness:** Incoming students will need to demonstrate *Basic Algebra Readiness* before enrolling in certain courses at CLC. These courses may be in math or other science or technology-related fields. In the past, *Basic Algebra Readiness* was called *Math Proficiency*. Both terms 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 314 for a list of the different ways that

- 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 264. 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 ACT test.
- 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 a high school transcript showing a "C" or better in one year of high school geometry or by earning a "C" or better in MTH 104 (Geometry).
- 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.



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.

Several CLC courses share an IAI number; however, each IAI number may only be used once for a general education requirement. Students may use a course with the same IAI number as an elective only. Course that share an IAI number are noted with an asterisk (*). Also see pages 42 and 181 for a complete list of courses that share IAI numbers.

I. College Requirements

- Satisfactory completion of the General Education Requirements for the appropriate degree;
- Cumulative CLC grade point average of 2.0 or higher
- Minimum of 15.0 credit hours of the last 30.0 earned at CLC;
- Completed Petition to Graduate (available in Admissions and Records);

II. General Education Requirements37

A. Communication Arts9

- Communication Arts: CMM 121
English: ENG 121 and ENG 122 or 126
(A grade of C or better is required for all English courses)

B. Social Sciences.....9

- Select courses from at least two different disciplines.
Anthropology: ANT 121, 221, 222, 224, 228
Economics: ECO 221, 222
Geography: GEG 122*, 123*
History: HST 121, 122, 126, 127, 221, 222
Political Science: PSC 121, 122, 221, 222
Psychology: PSY 121, 220, 222, 225, 226
Sociology: SOC 121, 222, 224, 225

C. Physical and Life Sciences7

- Select at least one course from Physical Sciences and one course from Life Sciences. Select at least one lab (L) course.

Physical Science

- Chemistry: CHM 120L*, 121L*, 140, 142L
Earth Science: ESC 120L, 121L, 123, 124, 127L 140L, 224
Geography: GEG 120L, 121
Physics: PHY 120L, 121L, 123L

Life Science

- Biology: BIO 120L, 123L* 127, 140, 141L*, 149, 161L*

Students may not receive credit towards a degree for both of the following pairs of courses

BIO 120 and BIO 140

CHM 140 and CHM 142

ESC 123 and ESC 127

D. Mathematics3

- Mathematics: 127, 140, 141, 145, 146, 221, 222, 224, 244, 246

E. Humanities and Fine Arts9

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

Humanities

- | | |
|-------------|--|
| Arabic: | ARA 222* |
| Chinese: | CHI 222* |
| English: | ENG 129*, 223, 225, 226, 227, 228, 229, 241, 243, 244, 246, 247* |
| French: | FRN 222*, 223*, 224* |
| German: | GER 222*, 223*, 224* |
| Humanities: | HUM 121, 122, 127*, 128, 129, 221, 226 |
| Italian: | ITL 222*, 223*, 224* |
| Japanese: | JPN 222* |
| Philosophy: | PHI 121, 122*, 123, 125, 126, 221 |
| Russian: | RUS 222* |
| Spanish: | SPA 222*, 223*, 224* |

Fine Arts

- | | |
|-------------|---|
| Art: | ART 121, 240, 241*, 242*, 260 |
| Humanities: | HUM 121, 122, 123, 126, 129, 140, 221, 222*, 225, 226 |
| Music: | MUS 124, 224 |
| Theatre: | THE 121, 123 |

III. International/Multicultural Requirement

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements23

Choose elective courses with an even middle digit that relate to your intended major. Courses with an even middle digit are transfer courses.

Exception: Up to six hours of courses with an odd middle digit (1, 3, 5, 7, 9) may be used as general electives in the degree. All 199 courses are exempt from this rule; however, students should select these courses only after they have verified transferability with their advisor or the transfer institution.

V. Total AA Degree Requirements60

ASSOCIATE IN SCIENCE (11AB)

Students may obtain an Associate in Science 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.

Several CLC courses share an IAI number; however, each IAI number may only be used once for a general education requirement. Students may use a course with the same IAI number as an elective only. Courses that share an IAI number are noted with an asterisk (*). Also see pages 42 and 181 for a complete list of courses that share IAI numbers.

I. College Requirements

- Satisfactory completion of the General Education Requirements for the appropriate degree;
- Cumulative CLC grade point average of 2.0 or higher
- Minimum of 15.0 credit hours of the last 30.0 earned at CLC;
- Completed Petition to Graduate (available in Admissions and Records) ;

II. General Education Requirements43

A. Communication Arts9

- Communication Arts: CMM 121
English: ENG 121 and ENG 122 or 126
(A grade of C or better is required for all English courses)

B. Social Sciences.....9

- Select courses from at least two different disciplines.
Anthropology: ANT 121, 221, 222, 224, 228
Economics: ECO 221, 222
Geography: GEG 122*, 123*
History: HST 121, 122, 126, 127, 221, 222
Political Science: PSC 121, 122, 221, 222
Psychology: PSY 121, 220, 222, 225, 226
Sociology: SOC 121, 222, 224, 225

C. Physical and Life Sciences8

- Select one lab (L) course from the Physical Sciences and one lab (L) course from the Life Sciences.

Physical Science

- Chemistry: CHM 120L*, 121L*, 142L
Earth Science: ESC 120L, 121L, 127L, 140L
Geography: GEG 120L
Physics: PHY 120L, 121L, 123L

Life Science

- Biology: BIO 120L, 123L*, 141L*, 161L

Students may not receive credit towards a degree for both of the following pairs of courses

BIO 120 and BIO 140
CHM 140 and CHM 142
ESC 123 and ESC 127

D. Mathematics8

- Mathematics: 122, 123, 127, 144, 145, 146, 221, 222, 224, 227, 244, 246

A minimum of 3.0 hours of math credit must be selected from courses with an IAI number.

Duplication of an IAI number is acceptable in Mathematics courses. See page 182 for a list of IAI Math courses.

E. Humanities and Fine Arts9

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

Humanities

- | | |
|-------------|--|
| Arabic: | ARA 222* |
| Chinese: | CHI 222* |
| English: | ENG 129*, 223, 225, 226, 227, 228, 229, 241, 243, 244, 246, 247* |
| French: | FRN 222*, 223*, 224* |
| German: | GER 222*, 223*, 224* |
| Humanities: | HUM 121, 122, 127*, 128, 129, 221, 226 |
| Italian: | ITL 222*, 223*, 224* |
| Japanese: | JPN 222* |
| Philosophy: | PHI 121, 122*, 123, 125, 126, 221 |
| Russian: | RUS 222* |
| Spanish: | SPA 222*, 223*, 224* |

Fine Arts

- | | |
|-------------|--|
| Art: | ART 121, 240, 241*, 242*, 260 |
| Humanities: | HUM 121, 122, 123, 126, 129, 140*, 221, 222*, 225, 226 |
| Music: | MUS 124, 224 |
| Theatre: | THE 121, 123 |

III. International/Multicultural Requirement

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements17

Choose elective courses with an even middle digit that relate to your intended major. Courses with an even middle digit are transfer courses.

Exception: Up to six hours of courses with an odd middle digit (1, 3, 5, 7, 9) may be used as general electives in the degree. All 199 courses are exempt from this rule; however, students should select these courses only after they have verified transferability with their advisor or the transfer institution.

V. Total AS Degree Requirements60

ASSOCIATE IN ENGINEERING SCIENCE DEGREE (12AB)

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

The engineering transfer curriculum is designed for students intending to transfer to a four-year college or university. The program prepares students for continued engineering study by providing coursework that “parallels” the first two years of engineering coursework offered at most universities accredited by the Accrediting Board for Engineering and Technology (ABET).

Several CLC courses share an IAI number; however, each IAI number may only be used once for a general education requirement. Students may use a course with the same IAI number as an elective only. Courses that share an IAI number are noted with an asterisk (*). Also see pages 42 and 181 for a complete list of courses that share IAI numbers.

I. College Requirements

- Satisfactory completion of the General Education Requirements for the appropriate degree;
- Cumulative CLC grade point average of 2.0 or higher
- Minimum of 15.0 credit hours of the last 30.0 earned at CLC;
- Completed Petition to Graduate (available in Admissions and Records);

II. General Education Requirements52

A. Communication Arts6

- | | |
|----------|--|
| English: | ENG 121 and ENG 122 or 126
(A grade of C or better is required for all English courses) |
|----------|--|

+B. Social Sciences.....6

- Select courses from at least two different disciplines.
- | | |
|--------------------|----------------------------------|
| Anthropology: | ANT 121, 221, 222, 224, 228 |
| Economics: | ECO 221, 222 |
| Geography: | GEG 122*, 123* |
| History: | HST 121, 122, 126, 127, 221, 222 |
| Political Science: | PSC 121, 122, 221, 222 |
| Psychology: | PSY 121, 220, 222, 225, 226 |
| Sociology: | SOC 121, 222, 224, 225 |

C. Physical or Life Sciences15

- | | |
|------------|-----------------|
| Chemistry: | CHM 121L |
| Physics: | PHY 123 and 124 |

D. Mathematics16

- | | |
|--------------------|---------------------------|
| Mathematics: | MTH 145, 146, 227 and 246 |
| Math/Comp Science: | MCS 140 or 142 |

+E. Humanities and Fine Arts6

Select one course from Humanities and one course from Fine Arts.

Humanities

- | | |
|-------------|--|
| Arabic: | ARA 222* |
| Chinese: | CHI 222* |
| English: | ENG 129*, 223, 225, 226, 227, 228, 229, 241, 243, 244, 246, 247* |
| French: | FRN 222*, 223*, 224* |
| German: | GER 222*, 223*, 224* |
| Humanities: | HUM 121, 122, 127*, 128, 129, 221, 226 |
| Italian: | ITL 222*, 223*, 224* |
| Japanese: | JPN 222* |
| Philosophy: | PHI 121, 122*, 123, 125, 126, 221 |
| Russian: | RUS 222* |
| Spanish: | SPA 222*, 223*, 224* |

Fine Arts

- | | |
|-------------|--|
| Art: | ART 121, 240, 241*, 242*, 260 |
| Humanities: | HUM 121, 122, 123, 126, 129, 140*. 221, 222*, 225, 226 |
| Music: | MUS 124, 224 |
| Theatre: | THE 121, 123 |

F. Computer Science.....3

Math/Computer Science MCS 140 or MCS 142

III. International/Multicultural Requirement

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements10-13

Select 7-8 hours from the list below:

- | | |
|--------------|-----------------------------------|
| Engineering: | EGR 121 and
EGR 221 or EGR 260 |
|--------------|-----------------------------------|

Select 3 - 5 hours from the list below:

- | | |
|--------------|---------------------|
| Chemistry: | CHM 123, 222 |
| Engineering: | EGR 221, 222 or 260 |
| Math: | MTH 225, 244 |
| Physics: | PHY 221 |

V. Total AES Degree Requirements62-65

+ Because minor differences in course requirements and articulation guidelines exist at different universities and colleges, students are encouraged to meet with an advisor at their intended transfer school, as well as with a CLC counselor, advisor or engineering faculty member.

ASSOCIATE IN FINE ARTS IN ART (14AA)

Students may obtain an Associate of 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 of 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.

Several CLC courses share an IAI number; however, each IAI number may only be used once for a general education requirement. Students may use a course with the same IAI number as an elective only. Courses that share an IAI number are noted with an asterisk (*). Also see pages 42 and 181 for a complete list of courses that share IAI numbers.

I. College Requirements

- Satisfactory completion of the General Education Requirements for the appropriate degree;
- Cumulative CLC grade point average of 2.0 or higher
- Minimum of 15.0 credit hours hours of the last 30.0 earned at CLC;
- Completed Petition to Graduate (available in Admissions and Records);

II. General Education Requirements31

A. Communication Arts9

- Communication Arts: CMM 121
English: ENG 121 and ENG 122 or 126
(A grade of C or better is required for all English courses)

B. Social Sciences.....6

- Select courses from at least two different disciplines.
Anthropology: ANT 121, 221, 222, 224, 228
Economics: ECO 221, 222
Geography: GEG 122*, 123*
History: HST 121, 122, 126, 127, 221, 222
Political Science: PSC 121, 122, 221, 222
Psychology: PSY 121, 220, 222, 225, 226
Sociology: SOC 121, 222, 224, 225

C. Physical and Life Sciences7-8

Select at least one course from Physical Science and one course from Life Sciences. At least one course must be a lab (L) course.

Physical Science

- Chemistry: CHM 120L*, 121L*, 140, 142L
Earth Science: ESC 120L, 121L, 123, 124, 127L, 140L, 224
Geography: GEG 120L, 121
Physics: PHY 120L, 121L, 123L

Life Science

- Biology: BIO 120L, 123L*, 127, 140, 141L*, 149, 161L*

D. Mathematics3-4

- Mathematics: MTH 127, 140, 141, 145, 146, 221, 222, 224, 244, 246

E. Humanities and Fine Arts6

- Select at least one course from Humanities and one course from Fine Arts

Humanities

- Arabic: ARA 222*
Chinese: CHI 222*
English: ENG 129*, 223, 225, 226, 227, 228, 229, 241, 243, 244, 246, 247*
French: FRN 222*, 223*, 224*
German: GER 222*, 223*, 224*
Humanities: HUM 121, 122, 127*, 128, 129, 221, 226
Italian: ITL 222*, 223*, 224*
Japanese: JPN 222*
Philosophy: PHI 121, 122*, 123, 125, 126, 221
Russian: RUS 222*
Spanish: SPA 222*, 223*, 224*

Fine Arts

- Humanities: HUM 121, 122, 123, 126, 129, 140*, 221, 222*, 225, 226
Music: MUS 124, 224
Theatre: THE 121, 123

III. International/Multicultural Requirement

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements30-32

A. Art Core21

- Art: ART 122, 124, 127, 221, 225, 240, 241*

B. Art Electives9

Select studio electives from at least two media in consultation with advisor or faculty member.

- Art: ART 123, 129, 222, 223, 224, 226, 228, 229, 245, 246

V. Total AFA in Art Degree Requirements61

ASSOCIATE IN FINE ARTS IN MUSIC EDUCATION (15AA)

Students may obtain an Associate of Fine Arts in Music Education 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 of 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.

Several CLC courses share an IAI number; however, each IAI number may only be used once for a general education requirement. Students may use a course with the same IAI number as an elective only. Courses that share an IAI number are noted with an asterisk (*). Also see pages 42 and 181 or a complete list of courses that share IAI numbers.

I. College Requirements

- Satisfactory completion of the General Education Requirements for the appropriate degree;
- Cumulative CLC grade point average of 2.0 or higher
- Minimum of 15.0 credit hours of the last 30.0 earned at CLC;
- Completed Petition to Graduate (available in Admissions and Records);

II. General Education Requirements25

A. Communication Arts9

- Communication Arts: CMM 121
 English: ENG 121 and ENG 122 or 126
 (A grade of C or better is required for all English courses)

B. Social Sciences.....6

- Select courses from at least two different disciplines.
 History: HST 221, 222
 Political Science: PSC 121

C. Physical and Life Sciences7

- Select at least one course from Physical Science and one course from Life Sciences. At least one course must be a lab (L) course.

Physical Science

Chemistry:	CHM 120L*, 121L*, 140, 142L
Earth Science:	ESC 120L, 121L, 123, 124, 127L, 140L, 224
Geography:	GEG 120L, 121
Physics:	PHY 120L, 121L, 123L

Life Science

Biology:	BIO 120L, 123L*, 127, 140, 141L*, 149, 161L*
----------	--

D. Mathematics3

Mathematics:	MTH 127, 140, 141, 145, 146, 221, 222, 224, 244, 246
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III. International/Multicultural Requirement

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Additional AFA Requirement.....2

Health/Physical Dev: PED 243 or HWP 240

V. Area of Concentration/Elective Requirements35

A. Music Core19

Music: MUS 128, 129, 224, 228, 229

B. Music Electives16

Choose 4.0 hours from the list below:
 Music: MUS 143>, 144>, 145, 146, 245, 246

Choose 4.0 hours from the list below:
 Music: MUS 120>, 123>, 223>

Choose 4.0 hours from the same 100 level course and 4 hours from the same 200 level course. All 8 hours must be taken in voice or in one major instrument:

Music: MUS 141> and MUS 241> or
 MUS 143> and MUS 243> or
 MUS 144> and MUS 244> or
 MUS 160> and MUS 260> or
 MUS 163> and MUS 263> or
 MUS 164> and MUS 264> or
 MUS 166> and MUS 266> or
 MUS 180> and MUS 280> or
 MUS 181> and MUS 281> or
 MUS 182> and MUS 282> or
 MUS 183> and MUS 283> or
 MUS 186> and MUS 286> or
 MUS 187> and MUS 287> or
 MUS 188> and MUS 288

> Repeatable up to four hours.

VI. Total AFA in Music Ed Degree Requirements62

ASSOCIATE IN FINE ARTS IN MUSIC PERFORMANCE (16AA)

Students may obtain an Associate of 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 of 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.

Several CLC courses share an IAI number; however, each IAI number may only be used once for a general education requirement. Students may use a course with the same IAI number as an elective only. Courses that share an IAI number are noted with an asterisk (*). Also see pages 42 and 181 for a complete list of courses that share IAI numbers.

I. College Requirements

- Satisfactory completion of the General Education Requirements for the appropriate degree;
- Cumulative CLC grade point average of 2.0 or higher
- Minimum of 15.0 credit hours of the last 30.0 earned at CLC;
- Completed Petition to Graduate (available in Admissions and Records);

II. General Education Requirements.....28-32

A. Communication Arts9

- Communication Arts: CMM 121
English: ENG 121 and ENG 122 or 126
(A grade of C or better is required for all English courses)

B. Social Science.....3-4

- Anthropology: ANT 121, 221, 222, 224, 228
Economics: ECO 221, 222
Geography: GEG 122*, 123*
History: HST 121, 122, 126, 127, 221, 222
Political Science: PSC 121, 122, 221, 222
Psychology: PSY 121, 220, 222, 225, 226
Sociology: SOC 121, 222, 224, 225

C. Physical and Life Sciences7-8

Select at least one course from Physical Science and one course from Life Sciences. At least one course must be a lab (L) course.

Physical Science

- Chemistry: CHM 120L*, 121L*, 140, 142L
Earth Science: ESC 120L, 121L, 123, 124, 127L, 140L, 224
Geography: GEG 120L, 121
Physics: PHY 120L, 121L, 123L

Life Science

- Biology: BIO 120L, 123L*, 127, 140, 141L*, 149, 161L*

D. Mathematics.....3-4

- Mathematics: MTH 127, 140, 141, 145, 146, 221, 222, 224, 244, 246

E. Humanities and Fine Arts6-7

Select at least one course from Humanities and one course from Fine Arts.

Humanities

- Arabic: ARA 222*
Chinese: CHI 222*
English: ENG 129*, 223, 225, 226, 227, 228, 229, 241, 243, 244, 246, 247*
French: FRN 222*, 223*, 224*
German: GER 222*, 223*, 224*
Humanities: HUM 121, 122, 127*, 128, 129, 221, 226
Italian: ITL 222*, 223*, 224*
Japanese: JPN 222*
Philosophy: PHI 121, 122*, 123, 125, 126, 221
Russian: RUS 222*
Spanish: SPA 222*, 223*, 224*

Fine Arts

- Art: ART 122, 240, 241*, 242*, 260
Humanities: HUM 121, 122, 123, 126, 129, 140*, 221, 222*, 225, 226
Theatre: THE 121, 123

III. International/Multicultural Requirement

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

Associate Degree Transfer Programs

IV. Area of Concentration/Elective Requirements37

A. Music Core21

Music: MUS 128, 129, 142, 149, 224, 228, 229

B. Music Electives16

Choose 4.0 hours from the list below:

Music: MUS 143>, 144>, 145, 146, 245, 246

Choose 4.0 hours from the list below:

Music: MUS 120>, 123>, 223>

Choose 4.0 hours from the same 100 level course and 4 hours from the same 200 level course. All 8 hours must be taken in voice or in one major instrument:

Music: MUS 141> and MUS 241> or
MUS 143> and MUS 243> or
MUS 144> and MUS 244> or
MUS 160> and MUS 260> or
MUS 163> and MUS 263> or
MUS 164> and MUS 264> or
MUS 166> and MUS 266> or
MUS 180> and MUS 280> or
MUS 181> and MUS 281> or
MUS 182> and MUS 282> or
MUS 183> and MUS 283> or
MUS 186> and MUS 286> or
MUS 187> and MUS 287> or
MUS 188> and MUS 288

> Repeatable up to four hours.

V. Total AFA in Music Performance Requirements65-69

ASSOCIATE IN ARTS IN TEACHING SECONDARY MATHEMATICS DEGREE (17AB)

Students may obtain an Associate of 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 of 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 Basic Skills (ITBS) in order to be awarded the AAT degree.

Several CLC courses share an IAI number; however, each IAI number may only be used once for a general education requirement. Students may use a course with the same IAI number as an elective only. Courses that share an IAI number are noted with an asterisk (*). Also see pages 42 and 181 for a complete list of courses that share IAI numbers.

I. College Requirements

- Satisfactory completion of the General Education Requirements for the appropriate degree;
- Cumulative CLC grade point average of 2.0 or higher
- Minimum of 15.0 credit hours of the last 30.0 earned at CLC;
- Completed Petition to Graduate (available in Admissions and Records);

II. General Education Requirements.....48

A. Communication Arts9

- Communication Arts: CMM 121
English: ENG 121 and ENG 122 or 126
(A grade of C or better is required for all English courses)

B. Social Sciences.....16

- Education: EDU 121, 122, and 222
Psychology: PSY 121 and 226

Select one course from the following disciplines:

Anthropology:	ANT 121, 221, 222, 224, 228
Economics:	ECO 221, 222
Geography:	GEG 122*, 123*
History:	HST 121, 122, 126, 127, 221, 222
Political Science:	PSC 121, 122, 221, 222

C. Physical and Life Sciences9

- Biology: BIO 161L*
Physics: PHY 123L

D. Mathematics5

- Mathematics: MTH 145

E. Humanities and Fine Arts9

- Philosophy: PHI 122*

Select six hours from the lists below. One course must be from Humanities and one course from Fine Arts.

Humanities

Arabic:	ARA 222*
Chinese:	CHI 222*
English:	ENG 129*, 223, 225, 226, 227, 228, 229, 241, 243, 244, 246, 247*
French:	FRN 222*, 223*, 224*
German:	GER 222*, 223*, 224*
Humanities:	HUM 121, 122, 127, 128, 129, 221, 226
Italian:	ITL 222*, 223*, 224*
Japanese:	JPN 222*
Philosophy:	PHI 121, 123, 125, 126, 221
Russian:	RUS 222*
Spanish:	SPA 222*, 223*, 224*

Fine Arts

Art:	ART 121*, 240, 241*, 242*, 260
Humanities:	HUM 121, 122, 123, 126, 129, 140*, 221, 222*, 225, 226
Music:	MUS 124, 224
Theatre:	THE 121, 123

III. International/Multicultural Requirement

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration Requirements14

- Mathematics: MTH 146, 225, and 246
Math Comp/Sci: MCS 140

V. Total AAT in Sec Math Degree Requirements62

ASSOCIATE IN ARTS IN TEACHING SPECIAL EDUCATION DEGREE (18AB)

Students may obtain an Associate of Arts in Teaching special Education degree from the College of Lake County by successfully meeting college requirements and the course requirements outlined below. The AAT in Special Education provides students with the program equivalent of the first two years of most four-year college teacher education programs in special education. Students should check individual school requirements before completing the curriculum as outlined. The degree consists of general education courses, professional education courses, and courses in the special education major area. These courses reflect the eleven Illinois Professional Teaching Standards, the Technology Standards for All Teachers, and the Core Language Arts Standards for All Teachers. Students must pass the Illinois Test of Basic Skills and develop a portfolio reflecting the Illinois Professional Teaching Standards to earn the AAT in Special Education. AAT students are advised to complete the program before transfer. Admission into a baccalaureate degree program is competitive and most senior institutions require a GPA of 2.5 or higher. Completion of the AAT in Special Education does not guarantee admission.

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 of 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 the institutions in which they intend to transfer to ensure transferability of specific courses.

Several CLC courses share an IAI number; however, each IAI number may only be used once for a general education requirement. Students may use a course with the same IAI number as an elective only. Courses that share an IAI number are noted with an asterisk (*). Also see pages 42 and 181 for a complete list of courses that share IAI numbers.

I. College Requirements

- Satisfactory completion of the General Education Requirements for the appropriate degree;
- Minimum of 15.0 credit hours of the last 30.0 earned at CLC;
- Completed Petition to Graduate (available in Admissions and Records);

Admission requirements for the AAT Special Education

- Completion of a minimum of 30 semester hours of college credit including a grade of C or better in: EDU 121, EDU 223, ENG 121, MTH 121, PSY 121 and PSY 222
- A minimum grade point average of 2.75
- Completion of a criminal background check
- Three reference forms completed by instructors. An instructor in the Education department must complete one of the forms
- Completion of an interview with the Department Chair or an EDU faculty advisor

Requirements for awarding the AAT in Special Education

- Successfully pass the Illinois Basic Skills Test (normally taken after the completion of 45 semester hours)
- A minimum cumulative GPA of 2.75

II. General Education Requirements45

A. Communication Arts	9
Communications: CMM 121	
English: ENG 121, 122	
(A grade of C or better is required for all English courses)	
B. Social Sciences.....	9
Geography/HST: GEG 122 or HST 221 or 222	
Psychology: PSY 121	
Political Science: PSC 121	
C. Physical and Life Science.....	8
Biology: BIO 120L or 141L*	
Chemistry/Physics: CHM 120L or PHY 120L	
D. Mathematics	10
Mathematics: MTH 121, 221 and 222	
E. Humanities and Fine Arts	9
Art: ART 121, 240+, 241*+, 242*+ or 260	
Music: MUS 124 or 224	
Humanities: HUM 128+ or PHI 123+ or 125+ or 126+	

III. International/Multicultural Requirement

The Humanities and Fine Arts courses listed above in Section E and marked with a (+) will satisfy the I/M course requirement. Select one of these courses to fulfill this requirement.

IV. Area of Concentration/Elective Requirements18

Education:	EDU 121, 222, 223, 225 and EDU 224 or 226
Psychology:	PSY 222

V. Total AAT in Special Education Requirements63

ASSOCIATE IN ARTS IN TEACHING EARLY CHILDHOOD EDUCATION DEGREE (19AB)

Students may obtain an Associate of Arts in Teaching Early Childhood Education 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 of Arts in Teaching Early Childhood Education 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.

Several CLC courses share an IAI number; however, each IAI number may only be used once for a general education requirement. Students may use a course with the same IAI number as an elective only. Courses that share an IAI number are noted with an asterisk (*). Also see pages 42 and 181 for a complete list of courses that share IAI numbers.

I. College Requirements

- Satisfactory completion of the General Education Requirements for the appropriate degree;
- Minimum of 15.0 credit hours of the last 30.0 earned at CLC;
- Completed Petition to Graduate (available in Admissions and Records);

Admission requirements for the AAT in Early Childhood Education

- Completion of a minimum of 30 semester hours of college credit including a grade of C or better in: ECE 121, EDU 223, ENG 121, MTH 121, PSY 121 and PSY 222
- A minimum grade point average of 2.75
- Completion of a criminal background check
- Three reference forms completed by instructors. An instructor in the Education department must complete one of the forms
- Completion of an interview with the Department Chair or an ECE faculty advisor

Requirements for awarding the AAT in Early Childhood Education

- Successfully pass the Illinois Basic Skills Test (normally taken after the completion of 45 semester hours)
- A minimum cumulative GPA of 2.75

II. General Education Requirements	47
A. Communication Arts	9
Communication Arts: CMM 121	
English: ENG 121, ENG 122	
(A grade of C or better is required for all English courses)	
B. Social Sciences.....	15
Education: EDU 121	
History: HST 221 or 222	
Political Science: PSC 121	
Psychology: PSY 121 and 222	
C. Physical and Life Sciences	8
Biology: BIO 120L, 141L*, 161L*	
Physics: PHY 120L or	
Chemistry: CHM 120L	
D. Mathematics	6
Mathematics: MTH 121, 221	
E. Humanities and Fine Arts	9
Art: ART 121*, 240+, 241*+, 242*+, or 260	
Humanities: HUM 126 or 221	
Music/Theatre: MUS 124 or 224	

III. International/Multicultural Requirement

The Humanities and Fine Arts courses listed above in Section E and marked with a (+) will satisfy the I/M course requirement. Select one of these courses to fulfill this requirement.

IV. Area of Concentration/Elective Requirements	15
Education: ECE 115, 121, 129, 223, 232	

V. Total AAT in Early Childhood Ed Requirements	62
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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 AA or AS 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:

Division of Biological and Health Sciences

- Area of Study: Biology (AS)
- Area of Study: Chemistry (AS)
- Area of Study: Ecology (AS)
- Area of Study: Microbiology (AS)
- Area of Study: Pre-Dentistry (AS)
- Area of Study: Physical Education (AA)
- Area of Study: Pre-Occupational Therapy (AS)
- Area of Study: Pre-Pharmacy (AA)
- Area of Study: Pre-Physical Therapy (AS)
- Area of Study: Pre-Medicine (AA)
- Area of Study: Pre-Veterinary Medicine (AA)
- Area of Study: Recreation (AA)
- Area of Study: Wildlife Management (AS)
- Area of Study: Zoology (AS)

Division of Business

- Area of Study: Accounting (AA)
- Area of Study: Business Administration (AA)
- Area of Study: Computer Information Technology (AS)

Division of Communication Arts, Humanities and Fine Arts

- Area of Study: Art (AA)
- Area of Study: Communication (AA)
- Area of Study: Dance (AA)
- Area of Study: English (AA)
- Area of Study: French (AA)
- Area of Study: Humanities (AA)
- Area of Study: Music (AA)
- Area of Study: Philosophy (AA)
- Area of Study: Spanish (AA)
- Area of Study: Theatre (AA)

Division of Engineering, Math and Physical Science

- Area of Study: Computer Science (AS)
- Area of Study: Earth Science (AS)
- Area of Study: Engineering (AES)
- Area of Study: Mathematics (AS)
- Area of Study: Teaching in Secondary Mathematics (AAT)
- Area of Study: Physics (AS)
- Area of Study: Surveying (AS)

Division of Social Science

- Area of Study: Anthropology (AA)
- Area of Study: Criminal Justice (AA)
- Area of Study: Early Childhood Education (AA)
- Area of Study: Economics (AA)
- Area of Study: Elementary Education (AA)
- Area of Study: Gender and Sexuality Studies (AA)
- Area of Study: Geography (AA)
- Area of Study: History (AA)
- Area of Study: Political Science (AA)
- Area of Study: Psychology (AA)
- Area of Study: Social Work (AA)
- Area of Study: Sociology (AA)
- Area of Study: Teaching Early Childhood Education (AAT)
- Area of Study: Teaching Special Education (AAT)

Educational Affairs

- Area of Study: International Studies (AA)

Biological and Health Sciences Division

TRANSFER DEGREES PROGRAM GUIDELINES

*AS Degree 11AB – Area of Concentration: Biological Sciences
AS Degree 11AB – Area of Concentration: Chemistry*

**AREA OF CONCENTRATION:
BIOLOGICAL SCIENCES**

**(Biology, Botany, Cellular and Molecular Biology,
Ecology, Microbiology, and Zoology)**

I. College Requirements[^]

II. General Education Requirements.....	43
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 Composition	3
B. Social Sciences	9
Social Science Electives*	9
C. Physical and Life Sciences	8
Recommended Courses:	
# BIO 161 General Biology I	4
# CHM 121 General Chemistry I	5
D. Mathematics	8
Recommended Course:	
MTH 123 Trigonometry	3
MTH 145 Calculus and Analytic Geometry I	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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements17

Recommended Courses:

# BIO 162 General Biology II	4
BIO 221 General Zoology	4
BIO 222 General Botany	4
# CHM 123 General Chemistry II	5
# CHM 222 Organic Chemistry I	5
# CHM 223 Organic Chemistry II	5

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	Branko Jablanovic
Shane Jones	Elisabeth Martin	Liz O'Grady
Bob Remedi	Cynthia Trombino	Carol Wismer
Gina Zainelli		

**AREA OF CONCENTRATION:
CHEMISTRY**
I. College Requirements[^]

II. General Education Requirements.....	43
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 Composition	3
B. Social Sciences	9
Social Science Electives*	9
C. Physical and Life Sciences	8
Recommended Courses:	
# BIO 161 General Biology I	4
# CHM 121 General Chemistry I	5
D. Mathematics	8
Recommended Course:	
MTH 145 Calculus and Analytic Geometry I	5
MTH 146 Calculus and Analytic Geometry II	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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements17

Recommended Courses:

# 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 members or the Biological and Health Sciences Division at (847) 543-2042:

Ahmad Audi	Bruce Moy	Tara Simmons
Jeanne Simondsen	Mary Urban	

Some transfer institutions may accept sequential courses (I and II) only if **both** courses are taken. Check with transfer institution.

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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Biological and Health Sciences Division
TRANSFER DEGREES PROGRAM GUIDELINES
AA Degree 13AB – Area of Concentration: Physical Education

**AREA OF CONCENTRATION:
PHYSICAL EDUCATION**

I. College Requirements[^]	
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 Composition.....	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 141 Quantitative Literacy.....	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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements

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 220 Physical Education in the Elementary School.....	3
PED 221 Introduction to Physical Education	3
PED 228 First Aid/CPR	3
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 Frank Ardito 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.
^ See page 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Biological and Health Sciences Division

TRANSFER DEGREES PROGRAM GUIDELINES

*AA Degree 13AB – Area of Concentration: Pre-Dentistry
 AA Degree 13AB – Area of Concentration: Pre-Medicine*

AREA OF CONCENTRATION: PRE-DENTISTRY

I. College Requirements[^]	
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 Elementary 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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements

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 Mary Urban or the Biological and Health Sciences Division at (847) 543-2042.

Some transfer institutions may accept sequential courses (I and II) only if **both** courses are taken. Check with transfer institution.

AREA OF CONCENTRATION: PRE-MEDICINE

I. College Requirements[^]	
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 Composition	3
B. Social Sciences.....	9
Recommended Course:	
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 Courses:	
MTH 145 Calculus I or	
MTH 222 Elementary 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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA 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 or the Biological and Health Sciences Division at (847) 543-2042.

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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

**BIOLOGICAL AND HEALTH SCIENCES DIVISION
TRANSFER DEGREES PROGRAM GUIDELINES**

*AS Degree 11AB – Area of Concentration: Pre-Occupational Therapy and Pre-Physical Therapy
AA Degree 13AB – Area of Concentration: Pre-Pharmacy*

**AREA OF CONCENTRATION:
PRE-OCCUPATIONAL THERAPY AND
PRE-PHYSICAL THERAPY**

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 page 47 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

AREA OF CONCENTRATION: PRE-PHARMACY

I. College Requirements[^]

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 Course:	
MTH 145 Calculus	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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements23

Recommended Courses:

BIO	244	Anatomy and Physiology I	4
BIO	245	Anatomy and Physiology II	4
# 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

Some transfer institutions may accept sequential courses (I and II) only if **both** courses are taken. Check with transfer institution.

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 Simondsen

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 43 for College Requirements / A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

^x See page 43 for College Requirements / ^o A grade of C or better is required for all English course requirements. / * See pages 46-55 for Course Selections

Biological and Health Sciences Division
TRANSFER DEGREES PROGRAM GUIDELINES
AA Degree 13AB – Area of Concentration: Pre-Veterinary Medicine

**AREA OF CONCENTRATION:
PRE-VETERINARY MEDICINE**

I. College Requirements[^]	IV. Area of Concentration/Elective Requirements	23
II. General Education Requirements	Recommended Courses:	
A. Communication Arts	# BIO 162 General Biology II	4
CMM 121 Fundamentals of Speech	BIO 221 General Zoology ²	4
⊗ ENG 121 English Composition I	# CHM 123 General Chemistry II.....	5
⊗ ENG 122 English Composition II or	CHM 125 Elementary Organic Chemistry ³	5
⊗ ENG 126 Advanced Composition: Scientific and Technical Composition.....	# CHM 222 Organic Chemistry I ³	5
B. Social Sciences.....	# CHM 223 Organic Chemistry II ³	5
Social Science Electives*	# PHY 121 General Physics I	5
C. Physical and Life Sciences	# PHY 122 General Physics II	5
Recommended Courses:		
# BIO 161 General Biology I		
# CHM 121 General Chemistry I		
D. Mathematics		
Recommended Course:		
MTH 222 Elementary Statistics		
E. Humanities and Fine Arts		
Fine Arts Elective*		
Humanities Elective*		
Humanities or Fine Arts Elective* ¹		

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

Some transfer institutions may accept sequential courses (I and II) only if **both** courses are taken. Check with transfer institution.

¹ Meets CLC AA requirements but is not required by U of I College of Veterinary Medicine.

² Strongly recommended. Required by University of Wisconsin School of Veterinary Medicine. Not required by U of I College of Veterinary Medicine.

³ 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 Kelly Cartwright 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.

[^] See page 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Biological and Health Sciences Division
TRANSFER DEGREES PROGRAM GUIDELINES
AA Degree 13AB – Area of Concentration: Recreation

AREA OF CONCENTRATION:
RECREATION

I. College Requirements[^]

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 Composition	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 141 Quantitative Literacy	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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA 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 Frank Ardito 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.

[^] See page 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Business Division

TRANSFER DEGREES PROGRAM GUIDELINES

*AA Degree 13AB – Area of Concentration: Accounting
AA Degree 13AB – Area of Concentration: Business Administration*

AREA OF CONCENTRATION: ACCOUNTING

I. College Requirements[^]	
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 Composition	3
B. Social Sciences	9
Recommended Courses:	
ECO 221 Principles of Macroeconomics	3
ECO 222 Principles of Microeconomics	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:	
HUM 127 Critical Thinking or	
PHI 122 Logic	3
PHI 125 Introduction to Ethics	3
Fine Arts Elective*	3

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements	23
Recommended Courses:	
ACC 121 Financial Accounting	4
ACC 122 Managerial Accounting.....	4
BUS 121 Introduction to Business	3
BUS 221 Business Law I	3
CIT 120 Introduction to Computers	3
Additional Electives as Needed	6

For more information on recommended courses or program specific advising, contact the following faculty or the Business Division at (847) 543-2041:

Jay Chittal
Mary Zenner

Patrick Stegman

Jeffrey Varblow

AREA OF CONCENTRATION: BUSINESS ADMINISTRATION

I. College Requirements[^]	
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 Composition	3
B. Social Sciences	9
Recommended Courses:	
ECO 221 Principles of Macroeconomics	3
ECO 222 Principles of Microeconomics	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:	
HUM 127 Critical Thinking or	
PHI 122 Logic	3
PHI 125 Introduction to Ethics	3
Fine Arts Elective*	3

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements	23
Recommended Courses:	
ACC 121 Financial Accounting	4
ACC 122 Managerial Accounting.....	4
BUS 121 Introduction to Business	3
BUS 221 Business Law I	3
CIT 120 Introduction to Computers	3
Additional Electives as Needed	6

For more information on recommended courses or program specific advising, contact the following faculty or the Business Division at (847) 543-2041:

Robert Dodd
Venkat Krishnamurthy

Kent Donewald

Lori Oriatti

Lawson Pride

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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / * See pages 46-55 for Course Selections

Most Illinois universities and colleges require MTH 222 and MTH 145 or 224. In addition, some require completion of MTH 127. (MTH 122 is a prerequisite for MTH 224). Please see a counselor in the Counseling, Advising and Transfer Center for more information on math course selection for transfer.

Business Division
TRANSFER DEGREES PROGRAM GUIDELINES
AS Degree 11AB – Area of Concentration: Computer Information Technology

AREA OF CONCENTRATION: COMPUTER INFORMATION TECHNOLOGY

I. College Requirements[^]	
II. General Education Requirements	43
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 Composition.....	3
B. Social Sciences.....	9
Recommended Courses:	
ECO 221 Principles of Macroeconomics	3
ECO 222 Principles of Microeconomics	3
Social Science Elective*	3
C. Physical and Life Sciences	8
Physical Science with Lab Elective*	4
Life Science with Lab Elective*	4
D. Mathematics	8
Recommended Courses:	
MTH 145 Calculus and Analytic Geometry I or	
MTH 224 Calculus for Business and Social Science.....	4-5
MTH 222 Elementary Statistics	4
E. Humanities and Fine Arts	9
Fine Arts Elective*	3
Humanities Elective*	3
Humanities or Fine Arts Elective*	3

IV. Area of Concentration/Elective Requirements17

Recommended Courses:

ACC	121	Financial Accounting	4
ACC	122	Managerial Accounting	4
CIT	120	Introduction to Computers	3
CIT	134	Programming Concepts Using Visual Basic.....	3
CIT	141	Programming in C++	4
CIT	241	Advanced C++	3

For more information on recommended courses or program specific advising, contact the following faculty or the Business Division at (847) 543-2041:

Changyi Chen
Sanjay Kumar

Dan Dainton
John North

Ellen Dykeman
Bob Scherbaum

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

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 43 for College Requirements. / © A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Communication Arts, Humanities and Fine Arts Division

TRANSFER DEGREES PROGRAM GUIDELINES

*AA Degree 13AB – Area of Concentration: Art**AA Degree 13AB – Area of Concentration: Communication***AREA OF CONCENTRATION:
ART**

I.	College Requirements[^]	
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 Courses:	
	ART 240 History of Art I	3
	ART 241 History of Art II	
	Humanities Elective*	3
III.	International/Multicultural Requirement (I/M)	
	Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.	
IV.	Area of Concentration/Elective Requirements	23
	See page 193 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
Robert Lossmann

Terry Dixon
Roland Miller

Hans Habeger

RECOMMENDED COURSE OF STUDY

**AREA OF CONCENTRATION:
COMMUNICATION**

I.	College Requirements[^]	
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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA 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
Lynne Harper

Joel Chmara
Kari Proft

Fred Gifford
Rick Soller

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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Communication Arts, Humanities and Fine Arts Division**TRANSFER DEGREES PROGRAM GUIDELINES***AA Degree 13AB – Area of Concentration: Dance**AA Degree 13AB – Area of Concentration: English***AREA OF CONCENTRATION:
DANCE**

I. College Requirements[^]	
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 Courses:	
DNC 240 The Art of Dance	3
MUS 124 Introduction to Music	3
THE 121 Introduction to Theatre	3
III. International/Multicultural Requirement (I/M)	
Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.	
IV. Area of Concentration/Elective Requirements	24
DNC 121 Intro to Ballet I	3
DNC 122 Modern Dance Technique I	3
DNC 123 Jazz Dance Technique I	3
DNC 124 Beginning Yoga.....	3
DNC 125 Elements of Dance Composition	3
DNC 221 Intermediate Ballet Technique	3
DNC 222 Intermediate Modern Dance Technique.....	3
DNC 126 Dance Forms	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

**AREA OF CONCENTRATION:
ENGLISH**

I. College Requirements[^]	
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
Humanities or Fine Arts Elective (Non-ENG)*	6
Humanities or Fine Arts Elective*	3
III. International/Multicultural Requirement (I/M)	
Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.	
IV. Area of Concentration/Elective Requirements	23
Recommended Courses#:	
ENG 223 Survey of Major American Writers	3
ENG 225 Major Trends and Authors of English Literature	3
ENG 226 Modern English Literature	3
ENG 229 20th Century American Literature	3
Foreign Language Electives#	8
Additional Electives as Needed	6

Many 4-year institutions accept the recommended courses for transfer towards an English degree. See page 232 for additional English electives.

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:

Elizabeth Aiossa	Theresa Aguinaldo	Lori Allen
Mary Ann Bretzlauf	Amanda Cash	Cathy Colton
Marlaina Easton	Patrick Gonder	Glenn Joshua
Elizabeth Keats	John Kupetz	Mike Latza
Martin Ley	George Liu	Vasilka Maslanka
Sean Murphy	Nick Schevera	Jennifer Staben
Mary Winter		

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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Communication Arts, Humanities and Fine Arts Division**TRANSFER DEGREES PROGRAM GUIDELINES***AA Degree 13AB – Area of Concentration: French***AREA OF CONCENTRATION:
FRENCH****I. College Requirements[^]****II. General Education Requirements37****A. Communication Arts9**

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 Composition.....	3

B. Social Sciences.....9

Recommended Courses:	
ANT 221 Cultural Anthropology	3
ANT 228 Cross Cultural Relationships.....	3
GEG 122 Cultural Geography.....	3
GEG 123 World Regional Geography.....	
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 Sciences7

Recommended Courses:	
BIO 120 Environmental Biology	4
Physical Science without Lab Elective*	3

D. Mathematics3

MTH Elective*	3
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E. Humanities and Fine Arts9

Recommended Courses:	
ART 240 History of Art I	3
ART 241 History of Art II or	
ART 242 History of Art III	3
HUM 121 Introduction to Humanities I.....	3
HUM 122 Introduction to Humanities II	3
HUM 140 Introduction to International Film.....	3

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA 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 Requirements23

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:

Maria Manterola Theresa Ruiz-Velasco Rai Salazar
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.

[^] See page 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Communication Arts, Humanities and Fine Arts Division

TRANSFER DEGREES PROGRAM GUIDELINES

AA Degree 13AB – Area of Concentration: Humanities

AA Degree 13AB – Area of Concentration: Philosophy

AREA OF CONCENTRATION: HUMANITIES

I. College Requirements[^]	
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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements23

See page 255 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:

Valerie Alpert
Leslie Hopkins
Robert Lossmann
Rebecca Thall

Christopher Cooling Patrick Gonder
John Kupetz George Liu
Sean Murphy Nick Schevera
Jackie Trimier

AREA OF CONCENTRATION: PHILOSOPHY

I. College Requirements[^]	
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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements23

See page 278 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

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 pages 46-55 for Course Selections /⁸ A grade of C or better is required for all English course requirements /⁹ See page 43 for College Requirements

See page 45 for College Requirements / A grade of C or better is required for all English course requirements. / See pages 46-55 for Course Selections

Communication Arts, Humanities and Fine Arts Division
TRANSFER DEGREES PROGRAM GUIDELINES
AA Degree 13AB – Area of Concentration: Music

**AREA OF CONCENTRATION:
MUSIC**

I. College Requirements[^]	
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 Composition.....	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:	
MUS 224 Music Literature	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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.	

IV. Area of Concentration/Elective Requirements23

Recommended Courses:

MUS 120 Vocal Ensembles	1
MUS 123 Wind Ensemble	1
MUS 127 Fundamentals of Music>.....	2
MUS 128 Theory of Music I	4
MUS 129 Theory of Music II	4
MUS 141 Applied Music – Voice	1-2
MUS 142 Ear-training and Sight-singing I	1
MUS 143 Applied Music – Piano I	1-2
MUS 144 Applied Music – Jazz Piano	1
MUS 145 Piano Class	1
MUS 149 Ear-training and Sight-singing II	1
MUS 160-188 Applied Music I (various instru)	1-2
MUS 223 Jazz Ensemble	1
MUS 228 Theory of Music III.....	4
MUS 241 Applied Music – Voice II	1-2
MUS 243 Applied Music – Piano II.....	1-2
MUS 244 Applied Music – Jazz Piano II.....	1-2
MUS 260-288 Applied Music II (various instru) ..	1-2

>Students unfamiliar with keys, scales, intervals and basic rhythms should take MUS 127 prior to MUS 128. Students familiar with these elements may be waived from MUS 127.

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:

Charles Clency

Mike Flack

RECOMMENDED
COURSE OF STUDY

Communication Arts, Humanities and Fine Arts Division**TRANSFER DEGREES PROGRAM GUIDELINES***AA Degree 13AB – Area of Concentration: Spanish***AREA OF CONCENTRATION:
SPANISH**

I. College Requirements[^]	
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 Composition.....	3
B. Social Sciences.....	9
Recommended Courses:	
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:	
ART 240 History of Art I	3
ART 241 History of Art II or	
ART 242 History of Art III	3
HUM 121 Introduction to Humanities I.....	3
HUM 122 Introduction to Humanities II	3
HUM 140 Introduction to International Film.....	3
III. International/Multicultural Requirement (I/M)	
Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA 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:

Maria Manterola Theresa Ruiz-Velasco Rai Salazar
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.
^ See page 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Communication Arts, Humanities and Fine Arts Division

TRANSFER DEGREES PROGRAM GUIDELINES

AA Degree 13AB – Area of Concentration: Theatre Performance

AA Degree 13AB – Area of Concentration: Theatre Technical

**AREA OF CONCENTRATION:
THEATRE – PERFORMANCE
(ACTING/DIRECTING)**

I. College Requirements[^]	
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 Courses:	
DNC 240 The Art of Dance	3
ENG 227 Introduction to Shakespeare or	
THE 123 Diversity in American Theatre	3
THE 121 Introduction to Theatre	3
III. International/Multicultural Requirement (I/M)	
Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA 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.

**AREA OF CONCENTRATION:
THEATRE – TECHNICAL
(DESIGN/STAGE MANAGEMENT)**

I. College Requirements[^]	
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 Courses:	
ART 121 Introduction to Art	3
ENG 227 Introduction to Shakespeare or	
THE 123 Diversity in American Theatre	3
THE 121 Introduction to Theatre	3
III. International/Multicultural Requirement (I/M)	
Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.	
IV. Area of Concentration/Elective Requirements	23
Recommended Courses:	
ENG 227 Introduction to Shakespeare or	
THE 123 Diversity in American Theatre	3
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

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.

[^] See page 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Engineering, Mathematics and Physical Sciences Division

TRANSFER DEGREES PROGRAM GUIDELINES

*AS Degree 11AB – Area of Concentration: Computer Science
AS Degree 11AB – Area of Concentration: Earth Science*

AREA OF CONCENTRATION: COMPUTER SCIENCE

I. College Requirements[^]	
II. General Education Requirements.....	43
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 Composition	3
B. Social Sciences	9
Social Science Electives*	9
C. Physical and Life Sciences	8
Recommended Courses:	
BIO 120 Environmental Biology or	
BIO 141 Concepts in Biology or	
BIO 161 General Biology I	4
PHY 123 Physics for Science and Engineering	5
D. Mathematics	8
Recommended Courses:	
MTH 144 Precalculus	5
MTH 244 Discrete Mathematics	3
E. Humanities and Fine Arts	9
Recommended Courses:	
HUM 127 Critical Thinking or	
PHI 122 Logic	3
Humanities or Fine Arts Electives*	6

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements	17
Recommended Courses:	
MCS 141 Computer Science I.....	4
MCS 142 Computer Science II	3
MCS 240 Computer Org and Architecture	3
MTH 145 Calculus and Analytic Geometry I	5
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	4
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 Engineering, Math and Physical Science Division at (847) 543-2044:

Natalia Casper
Scott Reed

Kim Hasbrouck

Shyam Kurup

Eric Priest

Xiaoming Zhai

AREA OF CONCENTRATION: EARTH SCIENCE

I. College Requirements[^]	
II. General Education Requirements.....	43
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 Composition	3
B. Social Sciences	9
Social Science Electives*	9
C. Physical and Life Sciences	8
ESC 120 Earth Science	4
BIO 120 Environmental Biology	4
D. Mathematics	8
Recommended Course:	
MTH 145 Calculus and Analytic Geometry I	5
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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements	17
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 140 Introduction to Astronomy	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:

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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Engineering, Mathematics and Physical Sciences Division

TRANSFER DEGREES PROGRAM GUIDELINES

AES Degree 12AB – Area of Concentration: Engineering

AREA OF CONCENTRATION: ENGINEERING

I. College Requirements[^]

II. General Education Requirements

A. Communication Arts	6
⊗ ENG 121 English Composition I	3
⊗ ENG 122 English Composition II or	
⊗ ENG 126 Advanced Composition: Scientific and Technical Composition.....	3
B. Social Sciences.....	6
Social Science Electives*	6
C. Physical and Life Sciences	15
CHM 121 General Chemistry I	5
PHY 123 Physics for Science and Engineering I	5
PHY 124 Physics for Science and Engineering II ..	5
D. Mathematics	16
MTH 145 Calculus and Analytic Geometry I	5
MTH 146 Calculus and Analytic Geometry II.....	4
MTH 227 Ordinary Differential Equations	3
MTH 246 Calculus and Analytical Geometry III ...	4
E. Humanities and Fine Arts	6
Humanities Elective*	3
Fine Arts Elective*	3
F. Computer Science.....	3
MCS 140 Computer Programming for Engineers and Scientists or	
MCS 142 Computer Science II	3

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration Requirements10-13

Required Courses:

EGR 121 Engineering Graphics	3
EGR 221 Statics and Dynamics or	
EGR 260 Introduction to Circuit Analysis	4-5

Select 3-5 Hours from the following:

Chemistry: CHM 123, 222

Engineering: EGR 221, 222 or 260

Mathematics: MTH 225, 244

Physics: PHY 221

Students are encouraged to meet with a counselor or advisor to identify coursework that will meet both CLC requirements and transfer requirements.

The engineering transfer curriculum is designed for students intending to transfer to a four-year college or university. The program prepares students for continued engineering study by providing coursework that “parallels” the first two years of engineering coursework offered at most universities accredited by the Accrediting Board for Engineering and Technology (ABET). Courses identified in the outlined sequence are suggestions and vary by institution. Because minor differences in course requirements exist at different universities and colleges, students are encouraged to meet with an advisor at their intended transfer school, as well as with a CLC counselor to ensure transferability of courses.

Prospective engineering students may elect to pursue the Associate in Engineering (AES) degree which may facilitate transfer to some engineering schools in Illinois. Most of the courses in the outlined program are core courses common to all engineering programs in Illinois, but course requirements vary depending upon transfer institution and department/discipline requirements. As noted above, students should work with the school to which they intend to transfer to ensure transferability.

Courses Offered in Selected Semesters Only						
Course	Fall		Spring		Summer	
	Day	Night	Day	Night	Day	Night
MTH 225			<i>varies by semester</i>			
MTH 227		X	X			
MTH 244			<i>varies by semester</i>			
MTH 246	X			X	X	
MCS 140	X			X	X	
MCS 142				X		
PHY 123	X	X	X			
PHY 124	X		X	X		
PHY 221						X
EGR 221				X		
EGR 222						X

For more information on recommended courses or program specific advising, contact Engineering faculty Rob Twardock at (847) 543-2903.

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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

TRANSFER DEGREES PROGRAM GUIDELINES

AS Degree 11AB – Area of Concentration: Mathematics

AS Degree 11AB – Area of Concentration: Physics

AREA OF CONCENTRATION: MATHEMATICS

I. College Requirements[^]	
II. General Education Requirements	43
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 Composition	3
B. Social Sciences	9
Social Science Electives*	9
C. Physical and Life Sciences	8
Recommended Courses:	
BIO 161 General Biology I	4
PHY 123 Physics for Science and Engineering	5
D. Mathematics	8
Recommended Course:	
MTH 145 Calculus and Analytic Geometry I	5
MTH Elective*	3
E. Humanities and Fine Arts	9
Recommended Course:	
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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements17

Recommended Courses:

MCS	140	Computer Programming for Engineers and Scientists or	
MCS	141	Computer Science I	3-4
MCS	142	Computer Science II	3
MTH	146	Calculus and Analytic Geometry II	4
MTH	225	Linear Algebra or	
MTH	227	Ordinary Differential Equations	3
MTH	244	Discrete Mathematics	3
MTH	246	Calculus and Analytic Geometry III.....	4

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
Natalia Casper Virginia Coil
Anni Gossman Jason Hasbrouck
Tracey Hoy Byron Hunter
Shyam Kurup Scott Reed
Kimberly Shryock-Boyke
John Thomas Stewart Thornburgh

AREA OF CONCENTRATION: PHYSICS

I. College Requirements[^]	
II. General Education Requirements	43
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 Composition	3
B. Social Sciences	9
Social Science Electives*	9
C. Physical and Life Sciences	8
Recommended Courses:	
CHM 121 General Chemistry I	5
PHY 123 Physics for Science and Engineering	5
D. Mathematics	8
Recommended Course:	
MTH 145 Calculus and Analytic Geometry I	5
MTH Elective*	3
E. Humanities and Fine Arts	9
Fine Arts Elective*	3
Humanities Elective*	3
Humanities or Fine Arts Elective*	3

IV. Area of Concentration/Elective Requirements17

For more information on recommended courses or program specific advising, contact the following faculty or the EMPS Division at (847) 543-2044:

Engineering, Mathematics and Physical Sciences Division**TRANSFER DEGREES PROGRAM GUIDELINES***AAT Degree 17AB – Area of Concentration: Mathematics – Teaching in Secondary Math***AREA OF CONCENTRATION:
MATHEMATICS – TEACHING IN
SECONDARY MATHEMATICS****I. College Requirements[^]****II. General Education Requirements**

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 Composition.....	3
B. Social Sciences.....	16
EDU 121 Introduction to Teaching	3
EDU 122 Observational/Clinical Experience in Education	1
EDU 222 The Exceptional Child	3
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 1	4
PHY 123 Physics for Science and Engineering	5
D. Mathematics	16
MTH 145 Calculus and Analytic Geometry I	5
MTH 146 Calculus and Analytic Geometry II.....	4
MTH 225 Linear algebra	3
MTH 246 Calculus and Analytic Geometry III	4
E. Humanities and Fine Arts	9
PHI 122 Logic	3
Fine Arts Elective*	3
Humanities or Fine Arts Elective*	3
F. Computer Science.....	3
MCS 140 Computer Programming for Engineers and Scientists	3

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Total Hours Required for AAT in Secondary Math ..62

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 Illinois Test of basic Skills (ITBS) in order to be awarded the AAT degree.

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**

Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

[^] See page 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Engineering, Mathematics and Physical Sciences Division**TRANSFER DEGREES PROGRAM GUIDELINES***AS Degree 11AB – Area of Concentration: Surveying***AREA OF CONCENTRATION:
SURVEYING****I. College Requirements[^]****II. General Education Requirements**

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 Composition	3
B. Social Sciences.....	9
Recommended Courses:	
ECO 221 Principles of Macroeconomics	3
ECO 222 Principles of Microeconomics	3
Social Science Elective*	3
C. Physical and Life Sciences	8
Recommended Courses:	
BIO 120 Environmental Biology or	4
BIO 123 Principles of Biology	4
PHY 121 General Physics I or	5
PHY 123 Physics for Science and Engineering I	5
D. Mathematics	8
Recommended Courses:	
MTH122 College Algebra and	4
MTH123 Trigonometry	3
MTH Elective (higher than MTH 123)	1
or	
MTH144 Pre-Calculus and	5
MTH145 Calculus and Analytic Geometry I	5
E. Humanities and Fine Arts	9
Recommended Courses:	
PHI 122 Logic	3
PHI 125 Introduction to Ethics	3
Fine Arts Elective*	3

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements17

Recommended Courses:

CIV 111 Basic Surveying	3
CIV 211 Land Surveying or	
CIV 216 Civil Surveying	3
MTH145 Calculus and Analytic Geometry I	5
MTH146 Calculus and Analytic Geometry II	4
PHY 122 General Physics II or	
PHY 124 Physics for Science and Engineering II	5

This area of concentration is for students who wish to become Surveyor in Training (SIT) eligible, with a long term goal of becoming a Professional Land Surveyor (PLS). Students who complete this program of study and earn an AS degree can transfer to 4-year Surveying program such as SIU-Carbondale, Purdue-Calumet, or others to complete a Bachelor of Science degree in Surveying. Alternatively, students may also pursue an Associate in Applied Science degree in Civil and Environmental Technology at CLC as a route to SIT eligibility. Students are strongly encouraged to seek advising with faculty advisors in the Surveying program.

For more information on recommended courses or program specific advising, contact Engineering faculty member Rob Twardock at (847) 543-2903 or the EMPS Division at (847) 543-2044.

**RECOMMENDED
COURSE OF STUDY**

Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

[^] See page 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / * See pages 46-55 for Course Selections

Social Sciences Division
TRANSFER DEGREES PROGRAM GUIDELINES
AA Degree 13AB – Area of Concentration: Anthropology
AA Degree 13AB – Area of Concentration: Criminal Justice

**AREA OF CONCENTRATION:
ANTHROPOLOGY**

I. College Requirements[^]	
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
HST 126 History of Contemporary Non-Western Civilization	3
PSC 221 Comparative Political Systems	3
C. Physical and Life Sciences	7
Recommended Course:	
GEG 120 Principles of Physical Geography.....	4
Life Science Elective*	3
D. Mathematics	3
Recommended Courses:	
MTH 127 Finite Math or	
MTH 222 Elementary Statistics	3-4
E. Humanities and Fine Arts	9
Recommended Courses:	
ART 240 History of Art I or	
ART 241 History of Art II	3
ENG 228 World Literature	3
PHI 126 World Religions	3

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements	23
Recommended Courses:	
ANT 121 Introduction to Anthropology	3
ANT 221 Cultural Anthropology	3
ANT 222 Introduction to Physical Anthropology.....	3
ANT 224 Introduction to Archaeology	3
ANT 228 Introduction to Cross-Cultural Communication	3
Foreign Language	8

+ Math requirements vary at four-year institutions

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

Wendy Brown

Scott Palumbo

**AREA OF CONCENTRATION:
CRIMINAL JUSTICE**

I. College Requirements[^]	
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
PSC 121 American National Politics.....	3
SOC 121 Introduction to Sociology	3
C. Physical and Life Sciences	7
Recommended Courses:	
BIO 120 Environmental Biology	4
GEG 121 Physical Geography	3
D. Mathematics	3
Recommended Course+:	
MTH 222 Elementary Statistics.....	4
E. Humanities and Fine Arts	9
Recommended Course:	
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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements	23
Recommended Courses:	
CRJ 121 Introduction to Criminal Justice	3
CRJ 122 Introduction to Policing	3
CRJ 123 Introduction to Criminology	3
CRJ 124 Penology and Corrections.....	3
CRJ 221 Criminal Law	3
CRJ 222 Criminal Procedural Law	3
CRJ 229 Juvenile Delinquency	3
CRJ 248 Psychology of the Criminal Mind	3
(Cross-listed as PSY 248)	

+ Math requirements vary at four-year institutions

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

Tom Arnold

Roger Voltz

Frank Zera

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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Social Sciences Division**TRANSFER DEGREES PROGRAM GUIDELINES**
*AA Degree 13AB – Area of Concentration: Early Childhood Education***AREA OF CONCENTRATION:
EARLY CHILDHOOD EDUCATION**

I. College Requirements[^]	
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:	
+ PSC 121 American National Politics	3
PSY 121 Introduction to Psychology	3
PSY 222 Child Growth and Development	3
C. Physical and Life Sciences	7
Recommended Courses:	
BIO 120 Environmental Biology or	
BIO 141 Concepts in Biology	4
Physical Science Elective*	3
D. Mathematics	3
Recommended Course++:	
~ MTH 221 Mathematics for Elem Teaching II	3
E. Humanities and Fine Arts	9
ART 121 Introduction to Art or	
ART 240 History of Art I or	
ART 241 History of Art II or	
ART 242 History of Art III or	
ART 260 History of Photography	3
PHI 125 Introduction to Ethics	3
MUS 124 Introduction to Music	3

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements23

Recommended Courses:	
ECE 141 Health, Safety and Nutrition	3
** ECE 121 Introduction to Early Childhood Ed	3
ECE 223 Child, Family & Community	3
** EDU 121 Introduction to Teaching	3
*** EDU 220 Observation and Assessment.....	3
** EDU 222 The Exceptional Child	3
EDU 223 Technology in the Classroom	3
HST 221 US History to 1876 or	
HST 222 US History 1876 to present.....	3
Additional Electives as Needed	2

+ PSC 121 is required by most 4-year institutions

++ Math requirements vary at four-year institutions.

~ Prerequisite is MTH 121

** Requires 15 hours of observation in the schools.

*** Requires 30 hours of observation in the schools.

This plan benefits students interested in transferring to a four-year college or university to obtain Illinois State Board of Education Type 04 certification. CLC recommends that students take the Illinois Test of Basic Skills upon completion of 45 credit hours. Students who successfully complete this sequence of courses meet teacher qualifications outlined by the Illinois Department of Children and Family Services at a child care center or pre-school.

For more information on recommended courses or program specific advising, contact faculty member Diane Wolter or the 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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Social Sciences Division
TRANSFER DEGREES PROGRAM GUIDELINES
AAT Degree 19AB – Area of Concentration: Teaching Early Childhood Education

**AREA OF CONCENTRATION:
AAT IN EARLY CHILDHOOD EDUCATION**

I. College Requirements[^]	
II. General Education Requirements	47
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.....	15
EDU 121 Introduction to Teaching	3
HST 221 US History to 1876 or	
HST 222 US History 1876 to Present	3
PSC 121 American National Politics	3
PSY 121 Introduction to Psychology	3
PSY 222 Child Growth and Development	3
C. Physical and Life Sciences	8
BIO 120 Environmental Biology or	
BIO 141 Concepts in Biology	4
PHY 120 Practical Aspects of Physics or	
CHM 120 Chemical Concepts	4
D. Mathematics	6
MTH 121 Math for Elementary Teaching I	3
MTH 221 Math for Elementary Teaching II	3
E. Humanities and Fine Arts	9
ART 121 Introduction to Art or	
+ ART 240 History of Art I or	
+ ART 241 History of Art II or	
+ ART 242 History of Art III or	
ART 260 History of Photography	3
HUM 126 Introduction to the Performing Arts or	
HUM 221 American Decades	3
MUS 124 Introduction to Music or	
MUS 224 Music Literature	3
III. International/Multicultural Requirement (I/M)	

The Humanities and Fine Arts courses listed above in Section E and marked with a (+) will satisfy the I/M course requirement. Select one of these courses to fulfill this requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration Requirements15

ECE 115 Music Activities for Young Children	3
# ECE 121 Introduction to Early Childhood Education.....	3
ECE 129 Language Development and Early Literacy	3
ECE 223 Child, Family, and Community.....	3
ECE 232 Math and Science for Young Children	3

V. Total AAT in Early Childhood Ed Requirements62

Admission requirements for the AAT in Early Childhood Education

- Completion of a minimum of 30 semester hours of college credit including a grade of C or better in: ECE 121, EDU 223, ENG 121, MTH 121, PSY 121 and PSY 222
- A minimum grade point average of 2.75
- Completion of a criminal background check
- Three reference forms completed by instructors. An instructor in the Education department must complete one of the forms
- Completion of an interview with the Department Chair or an ECE faculty advisor

Requirements for awarding the AAT in Early Childhood Education

- Successfully pass the Illinois Basic Skills Test (normally taken after the completion of 45 semester hours)
- A minimum cumulative GPA of 2.75

ECE 121 requires 15 hours of observation in the schools.

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

Kathleen Johnston Diane Wolter

Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

[^] See page 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Social Sciences Division

TRANSFER DEGREES PROGRAM GUIDELINES

AA Degree 13AB – Area of Concentration: Economics

AREA OF CONCENTRATION: ECONOMICS

I. College Requirements[^]	
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:	
HST 121 History of Western Civ to 1500	3
PSC 121 American National Politics	3
SOC 121 Introduction to Sociology	3
C. Physical and Life Sciences	7
GEG 120 Principles of Physical Geography	4
Life Science Elective*	3
D. Mathematics	3
Recommended Course+:	
MTH 145 Calculus and Analytic Geometry I or	
MTH 224 Calculus for Bus and Social Science ...	4-5
E. Humanities and Fine Arts	9
Recommended Courses:	
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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements23

Recommended Courses:	
ECO 221 Principles of Macroeconomics	3
ECO 222 Principles of Microeconomics	3
ECO 223 Money and Banking	3
MTH 222 Elementary Statistics	4
PSC 122 State and Local Politics.....	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 Social Sciences Division at (847) 543-2047:

Chandrea Hopkins Robert Kerr Dale Warnke

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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Social Sciences Division

TRANSFER DEGREES PROGRAM GUIDELINES

AA Degree 13AB – Area of Concentration: Elementary Education

**AREA OF CONCENTRATION:
ELEMENTARY EDUCATION**
I. College Requirements[^]

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:	
PSC 121 American National Politics.....	3
PSY 121 Introduction to Psychology.....	3
PSY 222 Child Growth and Development.....	3
C. Physical and Life Sciences	7
Recommended Courses:	
BIO 120 Environmental Biology or	
BIO 141 Concepts in Biology	4
PHY 120 Practical Aspects of Physics	3
D. Mathematics	3
Recommended Course:	
MTH 221 Mathematics for Elem Teaching II	3
E. Humanities and Fine Arts	9
MUS 124 Introduction to Music or	
MUS 224 Music Literature	3
ENG 223 Survey of Major American Writers or	
ENG 225 Major Trends and Authors of English Literature or	
ENG 226 Modern English Literature or	
ENG 227 Introduction to Shakespeare or	
ENG 228 World Literature or	
ENG 229 Twentieth Century American Literature or	
ENG 241 Introduction to Poetry or	
ENG 243 Introduction to Fiction	3
ART 240 History of Art I or	
ART 241 History of Art II or	
ART 242 History of Art III or	
ART 260 History of Photography.....	

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements23
Recommended Courses:

** EDU 121 Introduction to Teaching	3
*** EDU 122 Preclinical Education Experience	1
** 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
ENG 246 Latin American Writers or	
GEG 223 Geography of Latin America or	
HST 126 History of Contemporary Non-Western Civilization or	
HST 127 History of Chinese Culture and Soc	3
MTH 121 Mathematics for Elem Teachers I (if used as pre-requisite for MTH 221)	3
Additional electives as needed	1

A BA 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
HST 221 U.S. History to 1876 or	
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.

+ PSC 121 is required by most 4-year institutions

** Requires 15 hours of observation in the schools.

*** Requires 30 hours of observation in the schools.

The Illinois Test of Basic Skills should be taken upon completion of 45 credit hours.

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 work with a CLC Education advisor or counselor.

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

Kathleen Johnson

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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Social Sciences Division**TRANSFER DEGREES PROGRAM GUIDELINES**
*AA Degree 13AB – Area of Concentration: Gender and Sexuality Studies***AREA OF CONCENTRATION:
GENDER AND SEXUALITY STUDIES****I. College Requirements[^]**

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
SOC 121 Introduction to Sociology	3
SOC 229 Sex, Gender, and Power	3
C. Physical and Life Sciences	7
Recommended Course:	
BIO 120 Environmental Biology or	
BIO 141 Concepts in Biology	4
Physical or Life Science Elective*.....	3
D. Mathematics	3
Math Elective	3
E. Humanities and Fine Arts	9
ENG 129 Women in Literature	3
HUM 129 Women and the Arts	3
PHI 125 Introduction to Ethics	3

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements23

Choose from Recommended Courses:

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 Volunteer Services	3
GXS 121 Introduction to Gender Studies	3
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
SWK 124 Human Sexuality	3
SOC 222 Social Problems.....	3
SOC 224 Sociology of the Family	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 faculty the 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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / * See pages 46-55 for Course Selections

Social Sciences Division
TRANSFER DEGREES PROGRAM GUIDELINES
AA Degree 13AB – Area of Concentration: Geography
AA Degree 13AB – Area of Concentration: History

**AREA OF CONCENTRATION:
GEOGRAPHY**

I. College Requirements[^]	
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 Civ 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 222 Elementary 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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA 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 Civ 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 Social Sciences Division at (847) 543-2047.

**AREA OF CONCENTRATION:
HISTORY**

I. College Requirements[^]	
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
ECO 221 Principles of Macroeconomics	3
PSC 121 American National Politics	3
C. Physical and Life Sciences	7
Recommended Course:	
BIO 120 Environmental Biology or	
BIO 141 Concepts in Biology	4
GEG 121 Physical Geography	3
D. Mathematics	3
Recommended Course:	
MTH 141 Quantitative Literacy.....	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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA 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
HST 121 History of Western Civ to 1500	3
HST 122 History of Western Civ from 1500	3
HST 221 US History to 1876	3
HST 222 US History 1876 to Present	3
Additional Electives as Needed	8

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

Gregory Gordon David Groeninger Kenneth Kikuchi
 Septimus Paul Phyllis Soybel

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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Social Sciences Division**TRANSFER DEGREES PROGRAM GUIDELINES***AA Degree 13AB – Area of Concentration: Political Science**AA Degree 13AB – Area of Concentration: Psychology***AREA OF CONCENTRATION:
POLITICAL SCIENCE**

I. College Requirements[^]	
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
ECO 221 Principles of Macroeconomics	3
HST 121 History of Western Civ 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 222 Elementary Statistics	3-4
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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA 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
HST 122 History of Western Civ 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	5

+ Math requirements vary at four-year institutions.

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

Maria Perez-Laubhan Tim Murphy

**AREA OF CONCENTRATION:
PSYCHOLOGY**

I. College Requirements[^]	
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 Civ to 1500	3
PSC 121 American National Politics.....	3
C. Physical and Life Sciences	7
Recommended Course:	
BIO 161 General Biology	4
Physical or Life Science Elective*	3
D. Mathematics	3
Recommended Course+:	
MTH 141 Quantitative Literacy or	
MTH 222 Elementary 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 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements	23
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 229 Psychology of Women	3

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

Nora Benjamin
Martha Lally
Suzanne Valentine-French

Shari Brueske
Eric Rogers

Kenneth Kikuchi

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 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Social Sciences Division
TRANSFER DEGREES PROGRAM GUIDELINES
AA Degree 13AB – Area of Concentration: Social Work
AA Degree 13AB – Area of Concentration: Sociology

**AREA OF CONCENTRATION:
SOCIAL WORK**

I. College Requirements[^]	
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
PSC 121 American National Politics.....	3
PSY 121 Introduction to Psychology.....	3
C. Physical and Life Sciences	7
Recommended Course:	
BIO 120 Environmental Biology or	
BIO 141 Concepts in Biology	4
GEG 121 Physical Geography	3
D. Mathematics	3
Recommended Course+:	
MTH 222 Elementary Statistics.....	4
E. Humanities and Fine Arts	9
Recommended Course:	
PHI 121 Introduction to Philosophy	3
PHI 125 Introduction to Ethics	3
Fine Arts Elective*	3

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements	23
Recommended Courses:	
HUS 118 Professional Helping Skills.....	3
HUX 170 Introduction to Substance Abuse	3
PSY 223 Abnormal Psychology.....	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 124 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 Social Sciences Division at (847) 543-2047:

Mick Cullen

Janet Mason

**AREA OF CONCENTRATION:
SOCIOLOGY**

I. College Requirements[^]	
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
HST 121 History of Western Civ to 1500	3
PSC 121 American National Politics.....	3
C. Physical and Life Sciences	7
Recommended Courses:	
BIO 120 Environmental Biology or	
BIO 141 Concepts in Biology	4
GEG 121 Physical Geography	3
D. Mathematics	3
Recommended Course+:	
MTH 127 Finite Math or	
MTH 222 Elementary Statistics	3-4
E. Humanities and Fine Arts	9
Recommended Course:	
PHI 121 Introduction to Philosophy	3
HUM 123 Introduction to Film	3
Humanities or Fine Arts Elective*	3

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements	23
Recommended Courses:	
ANT 121 Introduction to Anthropology or	
ANT 221 Cultural Anthropology	3
PSY 121 Introduction to Psychology.....	3
SOC 121 Introduction to Sociology	3
SOC 222 Social Problems	3
SOC 223 Deviance	3
SOC 224 Sociology of the Family	3
Additional Electives As Needed	5

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

Frederic Hutchinson

Suzanne Pryga

John Tenuto

Li-hua Yu

Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

[^] See page 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Social Sciences Division

TRANSFER DEGREES PROGRAM GUIDELINES

AA Degree 13AB – Area of Concentration: Special Education

AREA OF CONCENTRATION: SPECIAL EDUCATION

I. College Requirements[^]

II. General Education Requirements37

A. Communication Arts9

- CMM 121 Fundamentals of Speech3
- ⊗ ENG 121 English Composition I3
- ⊗ ENG 122 English Composition II3

B. Social Sciences.....9

Recommended Courses:

- GEG 122 Cultural Geography **or**
- HST 221 US History to 1876 **or**
- HST 222 US History 1876 to Present3
- PSC 121 American National Politics3
- PSY 121 Introduction to Psychology3

C. Physical and Life Sciences7

Recommended Course:

- BIO 120 Environmental Biology **or**
- BIO 141 Concepts in Biology4
- GEG 121 Physical Geography3

D. Mathematics3

Recommended Course+:

- MTH 221 Mathematics for Elem Teaching II3

E. Humanities and Fine Arts9

- + ART 240 History of Art I **or**
- + ART 241 History of Art II **or**
- + ART 242 History of Art III **or**
- ART 260 History of Photography3
- MUS 124 Introduction to Music **or**
- MUS 224 Music Literature3
- + HUM 128 Introduction to Middle Eastern Civilizations **or**
- + PHI 123 Philosophy of Religion **or**
- + PHI 125 Introduction to Ethics **or**
- + PHI 126 World Religions3

III. International/Multicultural Requirement (I/M)

Select one course from the I/M list on page 44. This course can fulfill both the I/M requirement and a Social Science, Humanities, Fine Arts or Elective requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements¹23

Recommended Courses:

- EDU 121 Introduction to Teaching3
- EDU 222 The Exceptional Child3
- EDU 223 Technology in the Classroom3
- EDU 224 Diversity in the Classroom3
- EDU 225 Educational Psychology3
- EDU 226 Foundations of Reading3
- MTH 121 Math for Elementary Teachers I3
- PSY 222 Child Growth and Development3

+ MTH 121 is a prerequisite for MTH 221 and may be used as an elective requirement.

A BA degree at many four-year colleges may also require the following:

- PED 140 Contemporary Health Issues2
- PED 220 Phys. Ed in the Elem School3
- Any Earth Science Lab Class4

The Illinois Test of Basic Skills should be taken upon completion of 45 credit hours.

A BA degree at many four-year institutions may require college-level foreign language.

¹ 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 more information on recommended courses or for program specific advising, students may contact the following faculty members or the Social Sciences Division at (847) 543-2047.

Kathleen Johnston

Michelle Proctor

Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

[^] See page 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. / * See pages 46-55 for Course Selections

Social Sciences Division
TRANSFER DEGREES PROGRAM GUIDELINES
AAT Degree 18AB – Area of Concentration: Teaching Special Education

**AREA OF CONCENTRATION:
SPECIAL EDUCATION**

I. College Requirements[^]		
II. General Education Requirements	45	
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	
GEG 122 Cultural Geography or		
HST 221 US History to 1876 or		
HST 222 US History 1876 to Present	3	
PSY 121 Introduction to Psychology	3	
PSC 121 American National Politics	3	
C. Physical and Life Science.....	8	
BIO 120 Environmental Biology or		
BIO 141 Concepts in Biology	4	
CHM 120 Chemical Concepts or		
PHY 120 Practical Aspects of Physics	4	
D. Mathematics	10	
MTH 121 Mathematics for Elementary Teaching I..3		
MTH 221 Math for Elementary Teaching II	3	
MTH 222 Elementary Statistics	4	
E. Humanities and Fine Arts	9	
ART 121 Introduction to Art or		
+ ART 240 History of Art I or		
+ ART 241 History of Art II or		
+ ART 242 History of Art III or		
ART 260 History of Photography	3	
MUS 124 Introduction to Music or		
MUS 224 Music Literature	3	
+ HUM 128 Intro to Middle Eastern Civilizations or		
+ PHI 123 Philosophy of Religion or		
+ PHI 125 Introduction to Ethics or		
+ PHI 126 World Religions.....	3	
III. International/Multicultural Requirement (I/M)		

The Humanities and Fine Arts courses listed above in Section E and marked with a (+) will satisfy the I/M course requirement. Select one of these courses to fulfill this requirement. A BA degree at many four-year colleges may require college-level foreign language.

IV. Area of Concentration/Elective Requirements18

** EDU 121 Introduction to Teaching	3
** EDU 222 The Exceptional Child	3
EDU 223 Technology in the Classroom	3
EDU 224 Diversity in Schools and Society or	
EDU 226 Introduction to the Foundations of Reading	3
** EDU 225 Educational Psychology	3
PSY 222 Child Growth and Development	3

V. Total AAT in Special Education Requirements63

** Requires 15 hours of observation in the schools.

Admission requirements for the AAT Special Education

- Completion of a minimum of 30 semester hours of college credit including a grade of C or better in: EDU 121, EDU 223, ENG 121, MTH 121, PSY 121 and PSY 222
- A minimum grade point average of 2.75
- Completion of a criminal background check
- Three reference forms completed by instructors. An instructor in the Education department must complete one of the forms
- Completion of an interview with the Department Chair or an EDU faculty advisor

Requirements for awarding the AAT in Special Education

- Successfully pass the Illinois Basic Skills Test (normally taken after the completion of 45 semester hours)
- A minimum cumulative GPA of 2.75

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

Kathleen Johnson Michelle Proctor

Students are **strongly encouraged** to meet with a counselor or advisor to identify coursework that will meet both CLC and transfer requirements.

[^] See page 43 for College Requirements / ⊗ A grade of C or better is required for all English course requirements. /* See pages 46-55 for Course Selections

Career Programs

Career education programs are designed for students seeking specialized training in preparation for employment after leaving CLC. Both the AAS 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 AAS degree may transfer. See a counselor at CLC for more information.

Guarantee for Job Competency

As part of the College Graduate Guarantee (see page 41), 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 AAS 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 93-178).
- B. Completion of at least 15.0 of the last 30.0 credit hours of instruction earned while in attendance at CLC. This does not include credit earned by examination or transfer. Servicemembers and their spouses enrolled in Servicemember's Opportunity College Program and navy personnel enrolled in the Navy Campus for Achievement Program may meet the graduation requirement regarding semester hours at the college by completion a minimum of 15.0 semesters hours if active duty assignment takes him/her to a base preventing attendance at CLC.
- 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 Office of Admissions and Records.

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 93-178. Students must also meet graduation requirements listed on page 88.

Required General Education Coursework15

A. Communication Arts6

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 Sciences3

Select one course from the following selections:
Anthropology, Economics, Education,
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 Arts3

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, Spanish

Required Program Coursework45-57

Select coursework from programs
listed in pages 93-178.

Total Hours for Associate in Applied Science degree..60-72

Graduation Requirements

- A. Cumulative CLC grade point average of 2.0 or higher;
- B. Minimum of 15.0 of last 30.0 credit hours earned at CLC;
- C. Completed Petition to Graduate (available in Admissions and Records).

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 93 in this catalog. Candidates for certificates must submit a completed Petition for Graduation (available in Admissions and Records Office).

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 semester hours or less, completion of at least one half of the hours required by the certificate while in attendance at the College of Lake County. For certificates in excess of 30 semester hours, students must complete at least 15 hours while in attendance at the College of Lake County (not including credit earned by examination or transfer). Servicemembers and their spouses enrolled in the Servicemember's Opportunity College Program and Navy personnel enrolled in the Navy Campus for Achievement Program, may meet the graduation requirements regarding semester hours at the college by completion of a minimum of 15 semester hours if his or her active duty assignment takes him or her to a base preventing his or her attendance at College of Lake County courses.
3. Maintenance of a C (2.0) average for all work at CLC used to compute the grade point average.

General Studies Certificates

General studies certificates are awarded to students who successfully complete 30 semester hours in a program which has been designed by the individual student and which has been prearranged with the Dean of Adult Basic Education. The program may consist entirely of general studies courses or it may combine general studies courses with appropriate career and/or college transfer courses. Candidates for certificates must submit a completed Petition for Graduation. Contact the Office of Adult Basic Education at (847) 543-2402 for more information.

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. No more than four credit hours earned in PDS 120 or PDS 121 may count as elective credit. 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. 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.

Accounting

Accounting AAS
Accounting Clerk Certificate
Professional Accounting Certificate

Administrative Office Systems

Administrative Professional AAS
Administrative Assistant Certificate
General Office Certificate
Office Professional Certificate

Architectural Technology

Architectural Technology AAS and Certificate

Automotive Collision Repair

Auto Collision Repair AAS and Certificate
Automotive Damage Estimator Certificate
Automotive Refinishing Technician Certificate
Automotive Structural Repair Technician Certificate

Automotive Technology

Under Hood Technician AAS and Certificate
Under the Car Technician AAS and Certificate
Automotive Air Conditioning and Heating Specialist Certificate
Automotive Electrical Specialist Certificate
Automotive Fuel Systems Specialist Certificate
Automotive Service Specialist Certificate
Automotive Brakes and Suspension Specialist Certificate
Automotive Oil Change Specialist Certificate
Automotive Transmission Specialist Certificate

Business Management

Marketing AAS and Certificate
Supervision AAS and Certificate
Small Business Management Certificate

CAD Drafting Technology

Architectural/Civil AAS
Mechanical AAS
Graphics, Animation and Presentation AAS and Certificate
CAD Drafting Technology general Certificate
Architectural Certificate
Civil Certificate
ProEngineer Certificate
3D Parametric Certificate
AutoCAD Certificate
SolidWorks Certificate
Inventor Certificate

CISCO Networking

Cisco Networking Certificate

Civil and Environmental Technology

Civil and Environmental Technology AAS
Surveying and Civil Technology Certificate

Computer Information Technology

C++ Programmer AAS
Java Programmer AAS
Visual Basic Programmer AAS
Web Programmer AAS
Network Administration and Security AAS and Certificate

Office Application Specialist AAS and Certificate

Game Development AAS and Certificate
Computer Forensics AAS
C++ Programming Certificate
Java Programming Certificate
Visual Basic Programming Certificate
Web Programming Certificate
Computer Forensics Technician Certificate
Computer Forensics Analyst Certificate
Oracle Administrator Certified Associate Certificate
Oracle Administrator Certified Professional Certificate
Security Administration Certificate
PC Technician Certificate

CNC Programming

CNC Programming AAS
CNC Programming/Operations Certificate
CNC Operations Certificate

Construction Management Technology

Construction Management Technology AAS and Certificate

Criminal Justice

Criminal Justice AAS and Certificate

Dental Hygiene

Dental Hygiene AAS

Digital Media and Design

Digital Media and Design AAS
Digital A/V Production and Editing AAS
Multimedia Communications Certificate
Multimedia Presentations Certificate

Early Childhood Education

Early Childhood Education AAS and Certificate
Administration and Leadership in ECE Certificate
Infant-Toddler Specialist Certificate
School-Aged Child Care Certificate

Education Paraprofessional

Education Paraprofessional AAS
Paraprofessional Educator Certificate

Electrician Apprenticeship

Electrician Apprenticeship AAS

Electrical Engineering Technology

Electrical Engineering Technology AAS
Electronics Technology Certificate
Electrical/Electronics Maintenance Certificate
PC Technician Certificate

Electronic Information Technology

Electronic Information Technology AAS
Fiber Optics Technician Certificate
Linux System Administration Certificate
Wireless Networking Security Certificate

Electronics Systems Technology

Electronics Systems Technology AAS

Emergency and Disaster Management

Emergency and Disaster Management Certificate

Associate in Applied Science and Career Certificates

Emergency Medical Technology

Emergency Medical Technology AAS
Emergency Medical Technician Basic Certificate
Emergency Medical Technician Paramedic Certificate

Teaching English to Speakers of Other Languages

TESOL Certificate

Fire Science Technology

Fire Science Technology AAS

Health and Wellness Promotion

Health and Wellness Promotion AAS
Personal Training Certificate
Wellness Coaching Certificate

Health Information Technology

Health Information Technology AAS
Medical Transcription Certificate
Medical Billing Specialist Certificate

Heating and Air Conditioning (HVAC) Engineering Technology

Energy Audit AAS and Certificate (Pending ICCB Approval)
HET Supervisor AAS and Certificate (Pending ICCB Approval)
Industrial Refrigeration AAS and Certificate
Light Commercial AAS and Certificate (Pending ICCB Approval)
Residential HVAC AAS and Certificate (Pending ICCB Approval)
Stationary Engineer AAS and Certificate (Pending ICCB Approval)
Commercial Refrigeration Technician Certificate
Electrical Troubleshooting Technician Certificate
HET Core Certificate (Pending ICCB Approval)
HVAC Office Certificate (Pending ICCB Approval)
Plumbing and Pipefitting Certificate (Pending ICCB Approval)
Residential Air Conditioning Technician Certificate
Residential Heating Technician Certificate

Horticulture

Horticulture Production AAS
Landscape Design AAS and Certificate
Landscape Construction and Maintenance AAS
Natural Areas Management AAS and Certificate
Arboriculture Certificate
Floral Design Certificate
Landscape Maintenance Certificate

Hospitality and Culinary Management

Hospitality and Culinary Management AAS
Baking and Pastry Assistant Certificate
Hospitality Manager Certificate
Hospitality Supervisor Certificate
Professional Chef Certificate
Professional Cook Certificate

Human Services Program

Adult Services AAS
Alcohol, Substance Abuse and Addictive Disorders AAS and Certificate
Children and Adolescents AAS
Correctional Counseling AAS and Certificate
Human Services Program Certificate
Trauma, Violence Prevention and Victim Services AAS and Certificate

Library Technical Assistant

Children's Services AAS
Human Resources AAS
Library Technical Assistant AAS and Certificate
Library Technology AAS
Marketing and Public Relations AAS
Public Services AAS

Laser/Photonics/Optics

Laser/Photonics/Optics Certificate

Machine Tool Trades

Machine Tool Trades AAS and Certificate
Basic Machining Certificate
Tool and Mold Maker Certificate

Massage Therapy

Massage Therapy Certificate

Mechanical Engineering Technology

Mechanical Engineering Technology AAS
Mechanical Engineering Technology - CAD AAS
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

Medical Assisting

Medical Assisting AAS and Certificate
Healthcare Office Assistant Certificate

Medical Imaging

Medical Imaging AAS
Magnetic Resonance Imaging Certificate
Computed Tomography Certificate

Nanoscience Technology

Nanoscience Technology AAS
(degree granted by Harper College)

Nursing

Nursing AAS
Certified Nurse Assisting Certificate

Paralegal Studies

Paralegal Studies AAS and Certificate

Phlebotomy Technician

Phlebotomy Technician Certificate

Surgical Technology

Surgical Technology AAS and Certificate

Sustainable Programs

Alternative Energy Technologies Certificate
Sustainable Design and Construction Certificate

Technical Communication

Technical Communication AAS and Certificate
Professional Technical Communication Certificate

Welding

Gas Tungsten Arc Welding Specialty Certificate
Gas Metal Arc Welding Specialty Certificate
Shielded Metal Arc Welding Specialty Certificate

ACCOUNTING

Business Division, Room T102, (847 543-2041)

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 AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework15-19

AOS 122	Business Mathematics <i>or</i>
MTH 122	College Algebra <i>or</i>
MTH 127	Finite Mathematics <i>or</i>
MTH 222	Elementary Statistics <i>or</i>
MTH 224	Calculus for Business and Social Science ....3-4
CMM 111	Communication Skills <i>or</i>
CMM 121	Fundamentals of Speech <i>or</i>
CMM 128	Interviewing Practices
ENG 121	English Composition I
ECO 110	Economics for Business and Industry OR
ECO 221	Principles of Macroeconomics and
ECO 222	Principles of Microeconomics+ .....3-6 Humanities or Fine Arts Elective+.....3 (HUM 127, PHI 122 or PHI 125 recommended)

Required Business Coursework20

BUS 121	Introduction to Business.....3
BUS 221	Business Law I
CIT 111	Comprehensive Spreadsheets
CIT 119	Introduction to Office Software <i>or</i>
CIT 120	Introduction to Computers
	Electives (see list).....8

Required Accounting Coursework22-24

ACC 112	Accounting Procedures I and
ACC 113	Accounting Procedures II OR
ACC 121	Financial Accounting
ACC 122	Managerial Accounting
ACC 212	Federal Tax Accounting I
ACC 214	Cost Accounting
ACC 221	Intermediate Accounting I
ACC 222	Intermediate Accounting II.....4

Additional Required Coursework3

ENG 126	Advanced Composition: Scientific and Technical Communications <i>or</i>
AOS 111	Business Communications

Total Hours for AAS Degree60-66

Electives

Select eight hours from the list below:

ACC 114	Payroll Accounting.....2
ACC 171	Accounting Information and Computer Systems
ACC 172	Capstone Experience
ACC 213	Federal Tax Accounting II
ACC 270	Advanced Accounting
ACC 271	Auditing
AOS	Electives
BUS 222	Business Law II/Corporate and Securities Law
BUS	Electives
CIT	Electives
EWE 220	Cooperative Work Experience I
MTH	Electives (select from those listed under General Education section)
PSY 121	Introduction to Psychology or
PSY 122	Psychology in Business and Industry.....3

+ Students taking ECO 221 and ECO 222 are required to complete only five hours of business electives.

ACCOUNTING CLERK (Certificate) Plan 22AI

This program prepares individuals for positions as accounting or financial services support personnel. Accounting clerk positions require excellent mathematical aptitude, computer data entry skills, good communication skills, and basic accounting knowledge. Most positions require a minimum typing speed and microcomputer software application skills.

ACC 112	Accounting Procedures I
ACC 113	Accounting Procedures II
ACC 114	Payroll Accounting.....2
ACC 171	Accounting Information and Computer Systems
ACC 172	Capstone Experience - Accounting Clerk Certificate
AOS 111	Business Communications
AOS 122	Business Mathematics
CIT 111	Comprehensive Spreadsheets
CIT 119	Introduction to Office Software

Total Hours for Certificate23

PROFESSIONAL ACCOUNTING CERTIFICATE (Certificate) Plan 22AB

This certificate covers the body of knowledge necessary to prepare for the accounting portions of the Certified Public Accounting Exam. It is designed for individuals who have earned a bachelor's degree. It is strongly recommended that you take a CPA Review course prior to sitting for the exam.

Associate in Applied Science and Career Certificates

Complete CPA Requirements at CLC

To apply to take the CPA examination in Illinois, a candidate must have 150 semester hours of acceptable college level credits, including a bachelor's degree. A candidate will be deemed to have met the education requirement if, as part of the 150 semester hours the candidate meets any one of the following four conditions. Accounting hours do not include business law and no more than six semester hours of accounting may be internship or life experience.

1. Earned graduate degree with a concentration in accounting.
2. Earned graduate degree in business with at least 24 semester hours in accounting at the undergraduate level, or 15 semester hours at the graduate level, including courses covering the subjects of financial accounting, auditing, taxation, and managerial accounting.
3. Earned baccalaureate degree in business with at least 24 hours in accounting including courses covering the subjects of financial accounting, auditing, taxation, and managerial accounting.
4. Earned baccalaureate degree with at least 24 hours in accounting with at least one course each in financial accounting, auditing, taxation, and managerial accounting; and at least 24 hours in business courses (other than accounting).

This information has been obtained from the Illinois Board of Examiners website.

CLC recommends that the total accumulation of hours include ACC 121, 122, 212, 213, 214, 221, 222, 270, 271, BUS 221, 222, CIT 120, ECO 221, ECO 222 and MTH 222. Additional information and application can be obtained from the Illinois Board of Examiners, 100 Trade Center Drive, Suite 403, Champaign, Illinois 61820, telephone (217) 531-0950, fax (217) 531-0960. Illinois Board of Examiners Web site: www.illinois-cpa-exam.com.

#	ACC	212	Federal Tax Accounting I	3
	ACC	213	Federal Tax Accounting II	3
#	ACC	214	Cost Accounting	3
#	ACC	221	Intermediate Accounting I	4
	ACC	222	Intermediate Accounting II.....	4
	ACC	270	Advanced Accounting	4
	ACC	271	Auditing	3
	BUS	221	Business Law I	3
	BUS	222	Business Law II/Corporate and Securities Law	3

Total Hours for Certificate30

ACC 121 is a prerequisite for ACC 212. ACC 121 and ACC 122 are prerequisites for ACC 214 and ACC 221. Students who have taken these prerequisite courses from another college or university should contact an accounting faculty member for a prerequisite waiver.

For more information on recommended courses or program specific advising, contact the following faculty members or the Business Division at (847) 543-2041:

Jay Chittal
Mary Zenner

Patrick Stegman

Jeffrey Varblow

ADMINISTRATIVE OFFICE SYSTEMS

Business Division, Room T102, (847) 543-2041

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 executive assistant positions in an office environment. In addition, students establish essential administrative, technical, and communication skills.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Phase I.....	15	
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
Phase II	15-16	
AOS 111	Business Communications	3
AOS 113	Comprehensive Word Processing.....	3
AOS 223	Advanced Keyboarding# <i>or</i> Elective (see AOS Electives List)	3
ACC 112	Accounting Procedures I <i>or</i>	
ACC 121	Financial Accounting	3-4
CIT 111	Comprehensive Spreadsheets	3
Phase III	14	
AOS 118	Advanced Word Processing/Desktop Pub	3
AOS 119	Records Management	2
AOS 215	Presentation Software.....	3
CMM 111	Communication Skills <i>or</i>	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 128	Interviewing Practices	3
ENG 121	English Composition I	3
Phase IV	16-18	
AOS 117	Machine Transcription <i>or</i>	
AOS 237	Managerial Communication	3
AOS 214	Administrative Office Procedures	3
AOS 216	Integrated Office Projects.....	3
PSY 121	Introduction to Psychology <i>or</i>	
PSY 122	Psychology in Business and Industry.....	3
	Humanities or Fine Arts Elective*	3
	AOS Elective (see AOS Electives List) ....1-3	
Total Hours for AAS Degree	60-63	

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	Educational Work Experience.....	2-4
HIT 111	Medical Terminology	3
PLS	Electives	1-3

Other electives may be chosen with consent of an AOS advisor.

AOS 223 is not required for students who have completed AOS 178 with a minimum grade of B and can type at least 50 wpm (5 minute timing with 5 or fewer errors).

**GENERAL OFFICE
(Certificate) Plan 22SP**

The General Office certificate prepares individuals for entry-level office positions with titles such as general office clerk, general office assistant, and clerk-typist. This certificate emphasizes general office skills and related skills needed for entry-level positions and career advancement.

Semester One	7
AOS 111 Business Communications <i>or</i>	
AOS 172 Business English.....	3
AOS 170 Computer Keyboarding I	2
AOS 171 Computer Keyboarding II	2

Semester Two	9
AOS 112 Computer Basics/Software Applications	3
AOS 113 Comprehensive Word Processing.....	3
AOS 178 Intermediate Keyboarding	3

Total Hours for Certificate**16**

**OFFICE PROFESSIONAL
(Certificate) Plan 22SN**

The Office Professional certificate prepares individuals for positions using current industry software. Students complete word processing, presentation software, and spreadsheet courses.

AOS 113 Comprehensive Word Processing.....	3
AOS 118 Advanced Word Processing/Desktop Pub	3
AOS 215 Presentation Software.....	3
CIT 111 Comprehensive Spreadsheets	3

Total Hours for Certificate**12**

**ADMINISTRATIVE ASSISTANT
(Certificate) Plan 22SO**

The Administrative Assistant certificate prepares individuals to perform a variety of advanced tasks and assume responsibility in positions with titles of general office assistant and word processor. This certificate emphasizes word processing and related office skills for both entry-level positions and career advancement.

Semester One	12
AOS 112 Computer Basics/Software Applications	3
AOS 113 Comprehensive Word Processing.....	3
AOS 172 Business English.....	3
AOS 178 Intermediate Keyboarding	3
Semester Two	9
AOS 111 Business Communications	3
AOS 118 Advanced Word Processing/Desktop Pub	3
AOS 215 Presentation Software.....	3
Semester Three.....	9
AOS 214 Administrative Office Procedures	3
CIT 111 Comprehensive Spreadsheets	3
AOS Elective (see list below)	3

Total Hours for Certificate**30**

Administrative Assistant Certificate Electives

Select 3 hours from the list below:

+ AOS 117 Machine Transcription	3
+ AOS 119 Records Management	2
AOS 237 Managerial Communication	3
AOS 299 Selected Topics in AOS	1-4
ACC Elective	3
BUS Electives	1-3
CIT Elective	3
EWE Educational Work Experience.....	2-4
HIT Elective	3
PLS Electives	1-3

+ Recommended for students working towards an AAS degree.

For more information on recommended courses or program specific advising, contact the following faculty members or the Business division at (847) 543-2041:

Yvonne Block Joe Gehrke Lauren LoPresti

ARCHITECTURAL TECHNOLOGY

Engineering, Math and Physical Sciences Division
Room T102, (847) 543-2044

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 Energy and Design, please see page 172 for options, or contact the identified department chair for more information.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework15

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	Psychology in Business and Industry.....	3
ENG 120	Technical Composition I	3
MTH 117	Technical Mathematics I	3

Required ARC Coursework14

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 214	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	17
EGR 216	Statics and Mechanics of Materials for Technology
EWE 220	Cooperative Work Experience I
MTH 118	Technical Mathematics II
PHY 121	General Physics I

Total Hours for AAS Degree	62
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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

Select 34 hours from the following:

ARC 121	Architectural Graphics	3
ARC 170	Architectural Design.....	3
ARC 171	Architectural Working Drawings	3
ARC 215	Architectural Project Planning	4
ARC 216	Architectural Illustration	3
ARC 228	History of Architecture	3
ARC 251	Architectural Analysis	3
ARC 252	Begnings of Modern Architectural Theory	3
ARC 271	Commercial Working Drawings.....	3
ARC 275	Portfolio and Professional Development	1
ARC 299	Special Topics: Architecture Technology	1-4
CAD 117	Introduction to AutoCAD	3
CAD 177	Civil Drafting	3
CAD 179	Introduction to Autodesk 3ds Max	3
CAD 214	Introduction to Revit	3
CAD 217	AutoCAD II	3
CIV 111	Basic Surveying	4
CMT 113	Construction Materials	3
CMT 115	Carpentry I	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
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I	3
MTH 117	Technical Mathematics I	3

Total Hours for Certificate	34
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For more information on recommended courses or program specific advising, contact faculty member David Petrus or the Engineering, Math and Physical Sciences division at (847) 543-2044.

AUTOMOTIVE COLLISION REPAIR

Engineering, Math and Physical Sciences Division
Room T102, (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).

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

AUTOMOTIVE COLLISION REPAIR (Associate in Applied Science) Plan 24AN

Required General Education Coursework	15
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech.....	3
ENG 120 Technical Composition <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
Social Science Elective*	3
 Required Automotive Coursework	50
ABR 110 Non-Structural Repair I	5
ABR 111 Non-Structural Repair II.....	5
ABR 115 Automotive Welding.....	3
ABR 130 Automotive Refinishing I.....	3
ABR 131 Automotive Refinishing II	5
ABR 133 Automotive Refinishing III	5
ABR 137 Automotive Mechanical Systems.....	5
ABR 138 Automotive Electrical Systems	5
ABR 215 Automotive Detailing	3
ABR 230 Structural Repair I	3
ABR 231 Structural Repair II.....	5
ABR 235 Automotive Damage Analysis/ Shop Procedures	3
 Total Hours for AAS Degree	65

AUTOMOTIVE COLLISION REPAIR (Certificate) Plan 24AE

ABR 110 Non-Structural Repair I	5
ABR 111 Non-Structural Repair II.....	5
ABR 115 Automotive Welding.....	3

Total Hours for Certificate13

AUTOMOTIVE DAMAGE ANALYSIS (Certificate) Plan 24AK

ABR 110 Non-Structural Repair I	5
ABR 130 Automotive Refinishing I.....	3
ABR 230 Structural Repair I	3
ABR 235 Automotive Damage Analysis/ Shop Procedures	3

Total Hours for Certificate14

AUTOMOTIVE STRUCTURAL REPAIR TECHNICIAN (Certificate) Plan 24AL

ABR 115 Automotive Welding.....	3
ABR 137 Automotive Mechanical Systems.....	5
ABR 138 Automotive Electrical Systems	5
ABR 230 Structural Repair I	3
ABR 231 Structural Repair II.....	5

Total Hours for Certificate21

AUTOMOTIVE REFINISHING TECHNICIAN (Certificate) Plan 24AM

ABR 130 Automotive Refinishing I.....	3
ABR 131 Automotive Refinishing II	5
ABR 133 Automotive Refinishing III	5
ABR 215 Automotive Detailing	3

Total Hours for Certificate16

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.

Associate in Applied Science and Career Certificates

AUTOMOTIVE TECHNOLOGY

Engineering, Math and Physical Sciences Division Room T102, (847) 543-2044

The Automotive Technology programs offer courses leading to two Associate in Applied Science degrees: Under Hood Technician and Under the Car Technician. These programs 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 certification exams and have completed the work experience required by ASE will be awarded certification by ASE.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

UNDER HOOD TECHNICIAN (Associate in Applied Science) Plan 24AH

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.

Phase I.....	20
AUT 171	Engine Rebuilding
AUT 172	Auto Electrical I
AUT 174	Introduction to Automotive Technology
ENG 120	Technical Composition <i>or</i>
ENG 121	English Composition I
MTH 114	Applied Mathematics I <i>or</i>
MTH	Elective (higher than MTH 114)

Phase II.....	16
AUT 173	Auto Electrical II
AUT 215	Automotive Management <i>or</i>
AUT 217	Automotive Service Consulting
AUT 271	Engine Performance I
CMM 111	Communication Skills* <i>or</i>
CMM 121	Fundamentals of Speech*

Phase III	31
AUT 272	Engine Performance II
AUT 274	Automatic Transmissions and Trans Axles ..
AUT 275	Air Conditioning and Heating
AUT 276	Engine Systems Diagnosis
AUT 277	Advanced Specialization
	Humanities or Fine Arts Elective*
	Social Science Electives*

Total Hours for AAS Degree	67
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UNDER THE CAR TECHNICIAN (Associate in Applied Science) Plan 24AJ

These programs prepare students for employment in diagnosing, testing, and repairing brakes, suspension and alignment, and driveline systems. General Education coursework is built into the program.

Phase I.....	20
AUT 171	Engine Rebuilding
AUT 172	Auto Electrical I
AUT 174	Introduction to Automotive Technology
ENG 120	Technical Composition <i>or</i>
ENG 121	English Composition I
MTH 114	Applied Mathematics I <i>or</i>
MTH	Elective (higher than MTH 114)

Phase II	16
AUT 175	Braking Systems
AUT 176	Suspension and Alignment
AUT 215	Automotive Management <i>or</i>
AUT 217	Automotive Service Consulting
CMM 111	Communication Skills <i>or</i>
CMM 121	Fundamentals of Speech

Phase III	24-26
AUT 273	Manual Drive Train and Axles
AUT 274	Automatic Transmissions and Trans Axles ..
AUT 277	Advanced Specialization
AUT	Elective <i>or</i>
EWE 220	Cooperative Work Experience I
	Humanities or Fine Arts Elective*
	Social Science Electives*

Total Hours for AAS degree	60-62
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UNDER HOOD TECHNICIAN
(Certificate) Plan 24AV

Completion of this program prepares students for employment in the areas of automotive repair.

AUT 171	Engine Rebuilding	5
AUT 172	Auto Electrical I	5
AUT 173	Auto Electrical II	5
AUT 174	Introduction to Automotive Technology	4
AUT 215	Automotive Management <i>or</i>	
AUT 217	Automotive Service Consulting	3
AUT 271	Engine Performance I.....	5
AUT 272	Engine Performance II	5
AUT 275	Air Conditioning and Heating	5
AUT 276	Engine Systems Diagnosis	5
AUT 277	Advanced Specialization	5
MTH 114	Applied Mathematics I <i>or</i>	
MTH	Elective (higher than MTH 114)	3
Total Hours for Certificate		50

TRANSMISSION TECHNICIAN
(Certificate) Plan 24AX

AUT 171	Engine Rebuilding	5
AUT 172	Auto Electrical I	5
AUT 174	Introduction to Automotive Technology	4
AUT 215	Automotive Management <i>or</i>	
AUT 217	Automotive Service Consulting	3
AUT 273	Manual Drive Train and Axles	5
AUT 274	Automatic Transmissions and Trans Axles	5
AUT 277	Advanced Specialization	5
MTH 114	Applied Mathematics I <i>or</i>	
MTH	Elective (higher than MTH 114)	3

Total Hours for Certificate **35**

UNDER THE CAR TECHNICIAN
(Certificate) Plan 24AY

AUT 174	Introduction to Automotive Technology	4
AUT 175	Braking Systems.....	5
AUT 176	Suspension and Alignment	5
AUT 215	Automotive Management <i>or</i>	
AUT 217	Automotive Service Consulting	3
AUT 273	Manual Drive Train and Axles	5
AUT 277	Advanced Specialization	5
MTH 114	Applied Mathematics I <i>or</i>	
MTH	Elective (higher than MTH 114)	3

Total Hours for Certificate **30**

**AUTOMOTIVE AIR CONDITIONING
AND HEATING SPECIALIST**
(Certificate) Plan 24UG

This certificate prepares students for initial employment diagnosing and repairing automotive heating and air conditioning systems.

AUT 172	Auto Electrical I	5
AUT 174	Introduction to Automotive Technology	4
AUT 275	Air Conditioning and Heating	5

Total Hours for Certificate **14**

AUTOMOTIVE ELECTRICAL SPECIALIST
(Certificate) Plan 24UH

This Certificate prepares students for employment diagnosing and repairing chassis and body electrical and electronic circuits.

AUT 172	Auto Electrical I	5
AUT 173	Auto Electrical II	5
AUT 174	Introduction to Automotive Technology	4

Total Hours for Certificate **14**

**AUTOMOTIVE FUEL SYSTEMS
SPECIALIST**
(Certificate) Plan 24UI

This Certificate prepares students for initial employment diagnosing and repairing automotive engine fuel system problems.

AUT 174	Introduction to Automotive Technology	4
AUT 271	Engine Performance I.....	5
AUT 272	Engine Performance II	5

Total Hours for Certificate **14**

AUTOMOTIVE SERVICE SPECIALIST
(Certificate) Plan 24UJ

This Certificate prepares students for initial employment in the automotive service industry.

AUT 171	Engine Rebuilding	5
AUT 172	Auto Electrical I	5
AUT 174	Introduction to Automotive Technology	4

Total Hours for Certificate **14**

Associate in Applied Science and Career Certificates

AUTOMOTIVE BRAKES AND SUSPENSION SPECIALIST (Certificate) Plan 24UK

This Certificate prepares students for initial employment diagnosing and repairing automotive braking, suspension and alignment problems.

AUT 174	Introduction to Automotive Technology	4
AUT 175	Braking Systems.....	5
AUT 176	Suspension and Alignment	5

Total Hours for Certificate14

AUTOMOTIVE OIL CHANGE SPECIALIST (Certificate) Plan 24UL

This Certificate prepares students for employment in the oil change business.

AUT 171	Engine Rebuilding	5
AUT 174	Introduction to Automotive Technology	4
AUT 175	Braking Systems.....	5

Total Hours for Certificate14

AUTOMOTIVE TRANSMISSION SPECIALIST (Certificate) Plan 24UM

This Certificate prepares students for initial employment diagnosing and repairing manual transmission, automatic transmission and driveline problems.

AUT 174	Introduction to Automotive Technology	4
AUT 273	Manual Drive Train and Axles.....	5
AUT 274	Automatic Transmissions and Trans Axles ..	5

Total Hours for Certificate14

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 MANAGEMENT

Business Division, Room T102, (847) 543-2041

These programs are designed for students interested in entry and middle level management positions. They use the umbrella concept with a common core of 39 semester hours. The Associate in Applied Science degree and/or certificate options are available in Marketing and Supervision. An additional certificate is available in Small Business Management.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

MARKETING (Associate in Applied Science) Plan 22BC

Required General Education Coursework	15-16
AOS 122	Business Mathematics <i>or</i>
MTH 122	College Algebra <i>or</i>
MTH	Elective (higher than MTH 122).....
CMM 121	Fundamentals of Speech
ECO 221	Principles of Macroeconomics
ENG 121	English Composition I
HUM 127	Critical Thinking <i>or</i>
PHI 125	Introduction to Ethics

Required Business Management Coursework.....	18-20
ACC 112	Accounting Procedures I <i>or</i>
ACC 121	Financial Accounting
ACC 122	Managerial Accounting <i>or</i>
BUS 111	Fundamentals of Finance
BUS 121	Introduction to Business
BUS 221	Business Law I
BUS 223	Principles of Management
CIT 119	Introduction to Office Software <i>or</i>
CIT 120	Introduction to Computers

Required Marketing Coursework	21
BUS 122	Principles of Marketing
BUS 212	Business to Business Marketing.....
BUS 213	Principles of Professional Selling
BUS 214	Advertising
BUS 237	Managerial Communication
BUS 238	Project Management.....
	Marketing Electives (see list).....

Additional Required Coursework	6
AOS 111 Business Communication <i>or</i>	
ENG 126 Advanced Composition: Scientific and Technical Communications	3
ECO 222 Principles of Microeconomics	3

Total Hours Required for AAS Degree60-63

Marketing Electives

Select 3 hours from the list below:

Electives from ACC, AOS, BUS, CIT, EWE 220
(4 credit hour limit) or PSY

SUPERVISION

(Associate in Applied Science) Plan 22BD

Required General Education Coursework15

AOS 122 Business Mathematics <i>or</i>	
MTH 122 College Algebra <i>or</i>	
MTH Elective (higher than MTH 122).....	3-4
CMM 121 Fundamentals of Speech.....	3
ECO 221 Principles of Macroeconomics	3
ENG 121 English Composition I	3
HUM 127 Critical Thinking <i>or</i>	
PHI 125 Introduction to Ethics	3

Required Business Management Coursework.....18-20

ACC 112 Accounting Procedures I <i>or</i>	
ACC 121 Financial Accounting	3-4
ACC 122 Managerial Accounting <i>or</i>	
BUS 111 Fundamentals of Finance	3-4
BUS 121 Introduction to Business.....	3
BUS 221 Business Law I	3
BUS 223 Principles of Management	3
CIT 119 Introduction to Office Software <i>or</i>	
CIT 120 Introduction to Computers	3

Required Supervision Coursework21

BUS 113 Human Resource Management	3
BUS 115 Elements of Supervision.....	3
BUS 215 Operations Management.....	3
BUS 237 Managerial Communication	3
BUS 238 Project Management.....	3
Supervision Electives (see list)	6

Additional Required Coursework6

AOS 111 Business Communication <i>or</i>	
ENG 126 Advanced Composition: Scientific and Technical Communications	3
ECO 222 Principles of Microeconomics	3

Total Hours Required for AAS Degree60-63

Supervision Electives

Select 6 hours from the list below:

Electives from ACC, AOS, BUS, CIT, EWE 220
(4 credit hour limit) or PSY

MARKETING

(Certificate) Plan 22BG

The Marketing certificate prepares students for entry level marketing positions such as sales, promotion, and marketing management.

AOS 111 Business Communication	3
BUS 121 Introduction to Business.....	3
BUS 122 Principles of Marketing	3
BUS 212 Business to Business Marketing.....	3
BUS 213 Principles of Professional Selling	3
BUS 214 Advertising	3
BUS 223 Principles of Management	3
BUS 237 Managerial Communication	3

Total Hours for Certificate24

SUPERVISION

(Certificate) Plan 22BK

The Supervision certificate prepares students for various entry level areas of management which require skills in communication, interpersonal relations, and general business operations.

AOS 111 Business Communication	3
BUS 113 Human Resource Management	3
BUS 115 Elements of Supervision.....	3
BUS 121 Introduction to Business.....	3
BUS 215 Operations Management.....	3
BUS 223 Principles of Management	3
BUS 237 Managerial Communication	3
BUS 238 Project Management.....	3

Total Hours for Certificate24

**SMALL BUSINESS MANAGEMENT
(Certificate) Plan 22BE**

The Small Business Management certificate provides the student with the skills and knowledge needed to start and operate a small business.

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
	Small Business Management Electives (see list)	3
Total Hours for Certificate		21-22

Small Business Electives

Select three hours from the list below:

AOS 122	Business Mathematics	3
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 223	Principles of Management	3
BUS 237	Managerial Communication.....	3
BUS 238	Project Management.....	3
CIT 119	Introduction to Office Software	3
	Any career course(s) approved by the Business Management Chair.....	3

For more information on recommended courses or program specific advising, contact the following faculty members or the Business division at (847) 543-2041:

Kent Donewald Robert Dodd
Venkat Krishnamurthy Lori Oriatti

Lawson Pride

CAD DRAFTING TECHNOLOGY

**Engineering, Math and Physical Sciences Division
Room T102, (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 AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

**CAD DRAFTING TECHNOLOGY -
MECHANICAL
(Associate in Applied Science) Plan 24DC**

Required General Education Coursework		15
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
	Humanities or Fine Arts Elective*	3

Required CAD Coursework		37
CAD 110	CAD/CAM Concepts	3
CAD 117	Introduction to AutoCAD	3
CAD 171	Introduction to Inventor	3
CAD 173	Introduction to SolidWorks	3
CAD 174	SolidWorks II	3
CAD 176	Introduction to ProEngineer	3
CAD 211	Mechanical Detailing with GD and T	3
CAD 217	AutoCAD II	3
CAD 271	Inventor II.....	3
CAD 276	ProEngineer II <i>or</i> Technical Elective (see Technical Electives list).....	3
CDA 111	CAD Drafting Applications I	4
CDA 112	CAD Drafting Applications II	3

Required Mechanical Coursework	12
CNC 218 Introduction to Master CAM	3
MET 111 Manufacturing Processes	3
MET 214 Mechanical Design and Drafting	3
MTT 112 Machining Principles	3
 Total Hours for AAS Degree	64

**CAD DRAFTING TECHNOLOGY –
GRAPHICS, ANIMATION AND
PRESENTATION**
(Associate in Applied Science) Plan 24DJ

Required General Education Coursework	15
ARC 228 History of Architecture <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

Required CAD Coursework	31
CAD 110 CAD/CAM Concepts	3
CAD 117 Introduction to AutoCAD	3
CAD 171 Introduction to Inventor	3
CAD 173 Introduction to SolidWorks <i>or</i>	
CAD 176 Introduction to ProEngineer	3
CAD 179 Introduction to Autodesk 3ds Max	3
CAD 214 Introduction to Revit <i>or</i> Technical Elective (see Technical Electives list).....	3
CAD 273 CAD Specialization <i>or</i>	
EWE 220 Cooperative Work Experience I	3
CAD 279 Autodesk 3ds Max II	3
CDA 111 CAD Drafting Applications I	4
CDA 112 CAD Drafting Applications II	3

Required Graphics, Animation and Presentation Coursework	15
ARC 121 Architectural Graphics	3
ARC 216 Architectural Illustration <i>or</i>	
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

 Total Hours for AAS Degree	61
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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 117 Introduction to AutoCAD	3
CAD 171 Introduction to Inventor	3
CAD 173 Introduction to SolidWorks	3
CAD 174 SolidWorks II	3
CAD 176 Introduction to ProEngineer	3
CAD 177 Site Planning and Drafting	3
CAD 179 Introduction to Autodesk 3ds Max	3
CAD 211 Mechanical Detailing with GD and T	3
CAD 214 Introduction to Revit	3
CAD 217 AutoCAD II	3
CAD 271 Inventor II	3
CAD 276 ProEngineer II	3
CAD 279 Autodesk 3ds Max II	3
CNC 218 Introduction to MasterCam	3
ELT 111 Electronic Drafting	2
EWE 220 Cooperative Work Experience I	2-4
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

**CAD DRAFTING TECHNOLOGY –
ARCHITECTURAL/CIVIL**
(Associate in Applied Science) Plan 24DR

Required General Education Coursework	15
ARC 228 History of Architecture <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

Required CAD Coursework	24
CAD 110 CAD/CAM Concepts	3
CAD 117 Introduction to AutoCAD	3
CAD 177 Site Planning and Drafting	3
CAD 179 Introduction to Autodesk 3ds Max	3
CAD 214 Introduction to Revit	3
CAD 217 AutoCAD II	3
CAD 273 CAD Specialization <i>or</i>	
EWE 220 Cooperative Work Experience I	3
CAD 279 Autodesk 3ds Max II	3

Associate in Applied Science and Career Certificates

Required Architectural Coursework27-28

ARC 121	Architectural Graphics	3
ARC 170	Architectural Design.....	3
ARC 171	Architectural Working Drawings	3
ARC 216	Architectural Illustrations.....	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

Total Hours for AAS Degree66-67

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. Most courses require prerequisites before enrollment.

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>	
CDA 111	CAD Drafting Applications I	3-4
CAD 179	Introduction to Autodesk 3ds Max	3
CAD 279	Autodesk 3ds Max II	3
DMD 111	Introduction to Digital Media.....	3

Total Hours for Certificate24-25

CAD DRAFTING TECHNOLOGY – GENERAL (Certificate) Plan 24DM

ARC 121	Architectural Graphics	3
CAD 110	CAD/CAM Concepts	3
CAD 117	Introduction to AutoCAD.....	3
CAD 177	Site Planning and Drafting.....	3
CAD 179	Introduction to Autodesk 3ds Max	3
CDA 111	CAD Drafting Applications I	4
CIV 111	Basic Surveying	4
ELT 111	Electronic Drafting	2
MET 111	Manufacturing Processes	3
MTH 115	Applied Mathematics II	3

Total Hours for Certificate31

CAD DRAFTING TECHNOLOGY – ARCHITECTURAL (Certificate) Plan 24DN

ARC 121	Architectural Graphics	3
ARC 216	Architectural Illustrations.....	3
CAD 110	CAD-CAM Concepts	3
CAD 117	Introduction to AutoCAD	3
CAD 179	Introduction to Autodesk 3ds Max	3
CAD 214	Introduction to Revit	3
CAD 217	AutoCAD II	3

Total Hours for Certificate21

CAD DRAFTING TECHNOLOGY – CIVIL (Certificate) Plan 24DO

ARC 121	Architectural Graphics	3
CAD 110	CAD/CAM Concepts	3
CAD 117	Introduction to AutoCAD	3
CAD 177	Site Planning and Drafting	3
CAD 217	AutoCAD II	3
CIV 111	Basic Surveying <i>or</i>	
CIV 213	Subdivision Planning and Design	3-4
CMT 111	Construction Layout.....	3

Total Hours for Certificate21-22

CAD DRAFTING TECHNOLOGY – 3D PARAMETRIC (Certificate) Plan 24DP

CAD 171	Introduction to Inventor	3
CAD 173	Introduction to SolidWorks	3
CAD 174	SolidWorks II	3
CAD 176	Introduction to ProEngineer	3
CAD 211	Mechanical Detailing with GD and T	3
CAD 271	Inventor II.....	3
CAD 276	ProEngineer II	3

Total Hours for Certificate21

CAD DRAFTING TECHNOLOGY – AUTOCAD (Certificate) Plan 24DQ

CAD 110	CAD/CAM Concepts	3
CAD 117	Introduction to AutoCAD	3
CAD 211	Mechanical Detailing with GD and T	3
CAD 217	AutoCAD II	3
CDA 111	CAD Drafting Applications I	4
CDA 112	CAD Drafting Applications II	3

Total Hours for Certificate19

**CAD DRAFTING TECHNOLOGY – SOLIDWORKS
(Certificate) Plan 24DS**

CAD 173	Introduction to SolidWorks	3
CAD 174	SolidWorks II	3
CAD 211	Mechanical Detailing with GD and T	3
Total Hours for Certificate		9

**CAD DRAFTING TECHNOLOGY – PROENGINEER
(Certificate) Plan 24DT**

CAD 176	Introduction to ProEngineer	3
CAD 211	Mechanical Detailing with GD and T	3
CAD 276	ProEngineer 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

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

**Engineering, Math and Physical Sciences Division
Room T102, (847) 543-2044**

**CISCO NETWORKING
(Certificate) Plan 24CI**

This program prepares individuals for the Cisco Certified Network Associate exam (CCNA). The program consists of four courses each taught in an eight week format which will allow a student to finish the program in two semesters and begin the sequence in any semester. Material is presented by CBE (Computer Based Education) written by Cisco and supplemented by laboratory practical experience.

CNA 111	Cisco Networking I	3
CNA 112	Cisco Networking II	3
CNA 113	Cisco Networking III	3
CNA 114	Cisco Networking IV	3

Total Hours for Certificate**12**

For more information on recommended courses or program specific advising, contact the Engineering, Math and Physical Science division at (847) 543-2044.

CIVIL AND ENVIRONMENTAL TECHNOLOGY

**Engineering, Math and Physical Sciences Division
Room T102, (847) 543-2044**

**CIVIL AND ENVIRONMENTAL TECHNOLOGY
(Associate in Applied Science) Plan 24VA**

This program prepares students to work as entry-level technicians in the civil/environmental technology industry. Job opportunities include technician-level positions in surveying, construction inspection and testing, site layout design and drafting, water/wastewater plant operators, and environmental site assessment. Employers include municipalities, water/wastewater treatment agencies, private civil/surveying firms, heavy construction material suppliers, and construction firms.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework		17-19
ARC 228	History of Architecture <i>or</i> Humanities or Fine Arts Elective*	3
CMM 111	Communication Skills <i>or</i> Fundamentals of Speech.....	3
CMM 121	Fundamentals of Speech.....	3
ECO 110	Economics for Business and Industry <i>or</i> Geographic Information Systems <i>or</i> Social Science Elective*	3
GEG 240	Geographic Information Systems <i>or</i> Social Science Elective*	3
ENG 120	Technical Composition <i>or</i> English Composition	3
ENG 121	English Composition	3
MTH 117	Technical Mathematics I <i>and</i> Technical Mathematics II OR	
MTH 118	Technical Mathematics II OR	
MTH 122	College Algebra <i>and</i> Trigonometry OR	
MTH 123	Trigonometry OR	
MTH 144	Pre-calculus	5-7

Associate in Applied Science and Career Certificates

Required Civil and Environmental Technology Coursework	43
CAD 177 Civil Drafting	3
CIV 111 Basic Surveying	4
CIV 113 Construction Inspection and Safety	3
CIV 131 GIS/GPS Applications for Civil & Surveying Tech	3
CIV 211 Land Surveying <i>or</i>	
CIV 216 Civil Surveying.....	4
CIV 213 Site Planning and Design	3
CIV 214 Civil Materials and Testing	3
CMT 110 Intro to the Built Environment	1
CMT 113 Construction Materials	3
CMT 114 Intro to AEC Computer Applications.....	2
CMT 117 Construction Methods	3
EGR 121 Engineering Graphics	3
EGR 216 Statics and Mechanics of Materials for Technology	5
Technical Electives	3
Additional Required Coursework	5
PHY 121 General Physics I <i>or</i>	
PHY 123 Physics for Science and Engineering I.....	5
Total Hours for AAS Degree	65-67

Technical Electives

BIO 120 Environmental Biology	4
CAD 217 AutoCAD II	3
CIV 215 Special Problems	3
CMT 119 Specifications and Building Codes	3
CMT 211 Job Scheduling and Control	3
CMT 213 Construction Law and Documents	3
CMT 214 Construction Estimating	3
CMT 215 Construction Management	3
ESC 126 Geology of Illinois	3
ESC 224 Environmental Geology	3
EWE 220 Cooperative Work Experience I	1-4
EWE 270 Cooperative Work Experience II	3
HRT 216 Natural Areas Management	3
WWW 111 Mechanical and Electrical Equipment	3
WWW 112 Fundamentals of Wastewater Treatment	3
WWW 113 Basic Waterworks Operations	3
WWW 114 Introduction to Water and Wastewater Analysis.....	3

Many courses may apply towards a Bachelors in Science degree in engineering technology or surveying. Courses required for transfer vary by school and program. Students should consult with program advisor to plan on individualized curriculum based on their specific needs.

SURVEYING AND CIVIL TECHNOLOGY (Certificate) Plan 24VF

This certificate is intended for students desiring technician level work primarily in surveying technology and civil drafting. Potential employers include civil engineering firms, surveyors, public works agencies, and construction firms. Graduates are qualified to work in surveying crews and/or working on site plans in CAD using surveying data collected from fieldwork. Graduate from this program are qualified to sit for the American Congress of Surveying and Mapping (ACSM) Level I Survey Technician certification exam.

CAD 117 Introduction to AutoCAD	3
CAD 177 Civil Drafting	3
CIV 111 Basic Surveying	4
CIV 131 GIS/GPS Applications for Civil Engineering and Surveying Technology	3
CIV 211 Land Surveying <i>or</i>	
CIV 216 Civil Surveying.....	4
CMT 111 Construction Layout.....	3
CMT 114 Intro to AEC Computer Applications.....	2
MTH 117 Technical Mathematics I	3

Total Hours for Certificate

Note: Cooperative work experience may be substituted for one course upon approval of the department chair.

For more information on recommended courses or program specific advising, contact faculty member Rob Twardock or the Engineering, Math and Physical Sciences division at (847) 543-2044.

COMPUTER INFORMATION TECHNOLOGY

Business Division, Room T102, (847) 543-2041

The Computer Information Technology degree programs provide eight specialty options with a common core of general education, business and introductory computer courses. These specialty options include five Associate in Applied Science degrees in application programming, and Associate in Applied Science degrees in the areas of Network Administration and Security, Computer Forensics and Microsoft™ Office Application Specialist. Certificate options in multiple areas are also offered.

The computer technology emphasis of this degree program is a Windows-based programming and software applications environment.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

OFFICE APPLICATION SPECIALIST
(Associate in Applied Science) Plan 22CB

Required General Education Coursework	15-16
AOS 122 Business Mathematics <i>or</i>	
MTH 122 College Algebra <i>or</i>	
MTH Elective (higher than MTH 122).....	3-4
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices	3
ENG 121 English Composition I	3
Humanities or Fine Arts Elective*#	3
Social Sciences Elective*	3
Required Business Coursework	6-7
ACC 112 Accounting Procedures I <i>or</i>	
ACC 121 Financial Accounting	3-4
BUS 121 Introduction to Business.....	3
Required Office Application/CIT Coursework.....	39-40
AOS 113 Comprehensive Word Processing.....	3
AOS 215 Presentation Software.....	3
CIT 111 Comprehensive Spreadsheets	3
CIT 112 Comprehensive Database	3
CIT 120 Introduction to Computers	3
CIT 131 Windows Operating System.....	3
CIT 150 Introduction to Local Area Networking	3
CIT 170 Creating Web Pages	3
CIT 210 Programming for Office Applications	3
CIT 271 Markup Language Programming	3
Office Application Specialist Electives	9-10
Total Hours for AAS Degree	60-63

HUM 127, PHI 122, or PHI 125 recommended.

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 Programming Concepts Using Visual Basic <i>or</i>	
CIT 136 Programming Concepts Using Java	3
CIT 171 Web Page Scripting	3
CIT 172 E-Commerce Implementation and Impact	3
CIT 211 Project Management Software	3
ELT 151 PC Hardware Fundamentals.....	3
ELT 152 PC Peripherals and Troubleshooting	3

NETWORK ADMINISTRATION AND SECURITY
(Associate in Applied Science) Plan 22CD

Required General Education Coursework	15-16
AOS 122 Business Mathematics <i>or</i>	
MTH 122 College Algebra <i>or</i>	
MTH Elective (higher than MTH 122).....	3-4
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices	3
ENG 121 English Composition I	3
PSY 121 Introduction to Psychology <i>or</i>	
PSY 122 Psychology in Business and Industry.....	3
Humanities or Fine Arts Elective*#	3
Required Business Coursework	3
BUS 121 Introduction to Business.....	3

Required CIT Coursework.....	45
CIT 120 Introduction to Computers	3
CIT 131 Windows Operating System	3
CIT 132 Linux Operating System.....	3
CIT 134 Programming Concepts using Visual Basic <i>or</i>	
CIT 136 Programming Concepts using Java	3
CIT 150 Introduction to Local Area Networking	3
CIT 151 LAN Administration <i>or</i>	
CIT 230 Linux System Administration.....	3
CIT 152 Network Security Fundamentals	3
CIT 155 Introduction to Computer Forensics.....	3
CIT 156 Digital Evidence Recovery.....	3
CIT 250 Advanced LAN Administration	3
CIT 251 Implementing and Administering Security in Windows	3
CIT 252 Hardening the Infrastructure	3
CIT 253 Network Defense and Countermeasures	3
CIT 256 Advanced Digital Evidence Recovery	3
ELT 151 PC Hardware Fundamentals.....	3

Total Hours for AAS Degree	63-64
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HUM 127, PHI 122, or PHI 125 recommended.

WEB PROGRAMMER
(Associate in Applied Science) Plan 22CJ

Required General Education Coursework	15-16
AOS 122 Business Mathematics <i>or</i>	
MTH 122 College Algebra <i>or</i>	
MTH Elective (higher than MTH 122).....	3-4
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices	3
ENG 121 English Composition I	3
PSY 121 Introduction to Psychology <i>or</i>	
PSY 122 Psychology in Business and Industry.....	3
Humanities or Fine Arts Elective*#	3

Associate in Applied Science and Career Certificates

Required Business Coursework9-11

ACC 112	Accounting Procedures I <i>or</i>	
ACC 121	Financial Accounting	3-4
ACC 113	Accounting Procedures II <i>or</i>	
ACC 122	Managerial Accounting <i>or</i>	
BUS 111	Fundamentals of Finance	3-4
BUS 121	Introduction to Business.....	3

Required CIT Coursework36

CIT 112	Comprehensive Database	3
CIT 113	Introduction to SQL	3
CIT 120	Introduction to Computers	3
CIT 134	Programming Concepts using Visual Basic <i>or</i>	
CIT 136	Programming Concepts using Java	3
CIT 150	Introduction to Local Area Networking	3
CIT 170	Creating Web Pages	3
CIT 171	Web Page Scripting	3
CIT 173	PHP Programming	3
CIT 239	Systems Analysis	3
CIT 270	Server Side Programming	3
CIT 271	Markup Language Programming	3
CIT	Programming Electives <i>or</i>	
	Non-programming Electives (at end of section)	3

Total Hours for AAS Degree60-62

HUM 127, PHI 122, or PHI 125 recommended.

C++ PROGRAMMER

(Associate in Applied Science) Plan 22CR

Required General Education Coursework15-16

AOS 122	Business Mathematics <i>or</i>	
MTH 122	College Algebra <i>or</i>	
MTH	Elective (higher than MTH 122).....	3-4
CMM 111	Communication Skills <i>or</i>	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 128	Interviewing Practices	3
ENG 121	English Composition I	3
PSY 121	Introduction to Psychology <i>or</i>	
PSY 122	Psychology in Business and Industry.....	3
	Humanities or Fine Arts Elective*#	3

Required Business Coursework9-11

ACC 112	Accounting Procedures I <i>or</i>	
ACC 121	Financial Accounting	3-4
ACC 113	Accounting Procedures II <i>or</i>	
ACC 122	Managerial Accounting <i>or</i>	
BUS 111	Fundamentals of Finance	3-4
BUS 121	Introduction to Business.....	3

Required CIT Coursework37

CIT 112	Comprehensive Database	3
CIT 113	Introduction to SQL	3
CIT 120	Introduction to Computers	3
CIT 134	Programming Concepts using Visual Basic <i>or</i>	
CIT 136	Programming Concepts using Java	3

CIT 141	Programming in C++	4
CIT 150	Introduction to Local Area Networking	3
CIT 170	Creating Web Pages	3
CIT 233	Programming in Visual C++	3
CIT 239	Systems Analysis	3
CIT 241	Advanced C++	3
CIT	Programming Electives <i>or</i>	
	Non-programming Electives (at end of section)	6

Total Hours for AAS Degree61-64

HUM 127, PHI 122, or PHI 125 recommended.

VISUAL BASIC PROGRAMMER

(Associate in Applied Science) Plan 22CL

Required General Education Coursework15-16

AOS 122	Business Mathematics <i>or</i>	
MTH 122	College Algebra <i>or</i>	
MTH	Elective (higher than MTH 122).....	3-4
CMM 111	Communication Skills <i>or</i>	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 128	Interviewing Practices	3
ENG 121	English Composition I	3
PSY 121	Introduction to Psychology <i>or</i>	
PSY 122	Psychology in Business and Industry.....	3
	Humanities or Fine Arts Elective*#	3

Required Business Coursework9-11

ACC 112	Accounting Procedures I <i>or</i>	
ACC 121	Financial Accounting	3-4
ACC 113	Accounting Procedures II <i>or</i>	
ACC 122	Managerial Accounting <i>or</i>	
BUS 111	Fundamentals of Finance	3-4
BUS 121	Introduction to Business.....	3

Required CIT Coursework36

CIT 112	Comprehensive Database	3
CIT 113	Introduction to SQL	3
CIT 120	Introduction to Computers	3
CIT 134	Programming Concepts using Visual Basic <i>or</i>	
CIT 136	Programming Concepts using Java	3
CIT 135	Intro to Visual Basic Programming	3
CIT 150	Introduction to Local Area Networking	3
CIT 170	Creating Web Pages	3
CIT 234	Objects and Components using Visual Basic.....	3
CIT 235	Enterprise Database Access using Visual Basic.....	3
CIT 239	Systems Analysis	3
CIT	Programming Electives <i>or</i>	
	Non-programming Electives (at end of section)	6

Total Hours for AAS Degree60-63

HUM 127, PHI 122, or PHI 125 recommended.

JAVA PROGRAMMER

(Associate in Applied Science) Plan 22CM

Required General Education Coursework15-16

AOS 122	Business Mathematics <i>or</i>	
MTH 122	College Algebra <i>or</i>	
MTH	Elective (higher than MTH 122).....	3-4
CMM 111	Communication Skills <i>or</i>	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 128	Interviewing Practices	3
ENG 121	English Composition I	3
PSY 121	Introduction to Psychology <i>or</i>	
PSY 122	Psychology in Business and Industry.....	3
#	Humanities or Fine Arts Elective*	3

Required Business Coursework9-11

ACC 112	Accounting Procedures I <i>or</i>	
ACC 121	Financial Accounting	3-4
ACC 113	Accounting Procedures II <i>or</i>	
ACC 122	Managerial Accounting <i>or</i>	
BUS 111	Fundamentals of Finance	3-4
BUS 121	Introduction to Business.....	3

Required CIT Coursework.....36

CIT 112	Comprehensive Database	3
CIT 113	Introduction to SQL	3
CIT 120	Introduction to Computers	3
CIT 134	Programming Concepts using Visual Basic <i>or</i>	
CIT 136	Programming Concepts using Java	3
CIT 137	Object Oriented Programming using Java	3
CIT 150	Introduction to Local Area Networking	3
CIT 170	Creating Web Pages	3
CIT 236	Programming Using JavaBeans	3
CIT 237	Enterprise Java Development.....	3
CIT 239	Systems Analysis	3
CIT	Programming Electives <i>or</i> Non-programming Electives (at end of section)	6

Total Hours for AAS Degree60-63

HUM 127, PHI 122, or PHI 125 recommended.

Electives for Plans 22CJ, 22CL, 22CM and 22CR

Programming

CIT 135	Introduction to Visual Basic Programming ..	3
CIT 137	Object Oriented Programming using Java	3
CIT 141	Programming in C++	4
CIT 171	Web Page Scripting	3
CIT 173	PHP Programming	3
CIT 210	Programming for Office Applications	3
CIT 233	Programming in Visual C++	3
CIT 234	Objects and Components using Visual Basic.....	3
CIT 235	Enterprise Database Access using Visual Basic	3

CIT 236	Programming Using JavaBeans	3
CIT 237	Enterprise Java Development.....	3
CIT 238	C# Programming	3
CIT 241	Advanced C++	3
CIT 270	Server Side Programming	3
CIT 271	Markup Language Programming	3
CIT 299	Selected Topics in CIT (with department approval)	1-3

Non-programming

CIT 111	Comprehensive Spreadsheets	3
CIT 130	Operating Systems for A+ Certification.....	3
CIT 131	Windows Operating System	3
CIT 132	Linux Operating System.....	3
CIT 151	LAN Administration.....	3
CIT 152	Network Security Fundamentals	3
CIT 156	Digital Evidence Recovery.....	3
CIT 172	E-Commerce Implementation and Impact	3
CIT 211	Project Management Software	3
CIT 212	Oracle Database Administrator I	3
CIT 213	Oracle Database Administrator II.....	3
CIT 230	Linux System Administration.....	3
CIT 250	Advanced LAN Administration	3
CIT 251	Implementing and Administering Security in Windows	3
CIT 252	Hardening the Infrastructure	3
CIT 253	Network Defense and Countermeasures	3
CIT 256	Advanced Digital Evidence Recovery	3
CIT 257	Analysis of Digital Media	3
CIT 258	Network Forensics	4
CIT 299	Selected Topics in CIT (with department approval)	1-3
EWE 220	Cooperative Work Experience I	1-3

COMPUTER FORENSICS

(Associate in Applied Science) Plan 22CU

Required General Education Coursework15

CMM 111	Communication Skills <i>or</i>	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 128	Interviewing Practices	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I	3
PSY 121	Introduction to Psychology <i>or</i>	
PSY 122	Psychology in Business and Industry.....	3
PHI 125	Introduction to Ethics	3
	Science or Math Elective*	3

Required Criminal Justice Coursework12

CRJ 121	Introduction to Criminal Justice	3
CRJ 123	Introduction to Criminology I	3
CRJ 219	Principles of Criminal Investigations	3
CRJ 222	Criminal Procedural Law	3

Associate in Applied Science and Career Certificates

Required Computer Forensics Coursework	32-34
CIT 120 Introduction to Computers	3
CIT 131 Windows Operating System.....	3
CIT 132 Linux Operating System.....	3
CIT 150 Introduction to Local Area Networking	3
CIT 152 Network Security Fundamentals	3
CIT 155 Introduction to Computer Forensics.....	3
CIT 156 Digital Evidence Recovery.....	3
CIT 256 Advanced Digital Evidence Recovery	3
CIT 258 Network Forensics	4
CIT 259 Topics in Computer Forensics	1-3
ELT 151 PC Hardware Fundamentals.....	3
Additional Required Coursework	3
SOC 223 Deviance	3
Total Hours for AAS Degree	62-64

GAME DEVELOPMENT (Associate in Applied Science) Plan 22CW

Required General Education Coursework	15-16
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices	3
ENG 121 English Composition I	3
MTH 122 College Algebra <i>or</i>	
MTH Elective (higher than MTH 122).....	3-4
PSY 121 Introduction to Psychology <i>or</i>	
PSY 122 Psychology in Business and Industry.....	3
Humanities or Fine Arts Elective*#	3
Required Business Coursework	3
BUS 121 Introduction to Business.....	3
Required CIT Coursework	40
CIT 120 Introduction to Computers	3
CIT 134 Programming Concepts using Visual Basic <i>or</i>	
CIT 136 Programming Concepts using Java	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
CIT Electives or Multimedia and Art Electives (see below)	12
Additional Required Coursework	3
Social Sciences Elective	3
Total Hours for AAS Degree	61

HUM 127, PHI 122, or PHI 125 recommended.

Electives:

Choose twelve hours from the following lists:

CIT Electives	
CIT 112 Comprehensive Database	3
CIT 135 Introduction to Visual Basic Programming.....	3
CIT 137 Object Oriented Programming Using Java	3
CIT 170 Creating Web Pages	3
CIT 171 Web Page Scripting	3
CIT 211 Project Management Software	3
CIT 233 Programming in Visual C++	3
CIT 239 Systems Analysis	3

Multimedia and Art Electives

ART 149 Photographic Electronic Imaging I	3
ART 222 Introduction to Computer Art.....	3
ART 263 2D Computer Animation	3
ART 264 3D Computer Animation	3
DMD 111 Introduction to Multimedia	3
DMD 173 Introduction to Digital Sound.....	3
DMD 217 Multimedia Authoring	3
DMD 257 Interactive Animation	3

OFFICE APPLICATION SPECIALIST (Certificate) Plan 22CG

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

PC TECHNICIAN (Certificate) Plan 22CI

The PC technician certificate provides career training for students entering the computer technical support field. This certificate provides the training for individuals who install, maintain, upgrade and repair PC hardware and software. This certificate helps prepare the student for the A+ Certification exam. Proficiency credit through examination is available for CIT 120 and EET 170. Contact the Testing Center for more details.

(Continued)

CIT	120	Introduction to Computers	3
CIT	130	Operating Systems for A+ Certification.....	3
EET	170	DC Circuit Fundamentals.....	2
ELT	151	PC Hardware Fundamentals.....	3
ELT	152	PC Peripherals and Troubleshooting	3

Total Hours for Certificate14

NETWORK ADMINISTRATION AND SECURITY (Certificate) Plan 22CK

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.

Computer Forensics coursework is included so students will learn procedures on securing evidence if network security has been breached. Students will be prepared to take several industry certification exams in the Network Administration, Network Security and Computer Forensics fields.

CIT	131	Windows Operating System.....	3
CIT	132	Linux Operating System.....	3
CIT	150	Introduction to Local Area Networking	3
CIT	151	LAN Administration <i>or</i>	
CIT	230	Linux System Administration.....	3
CIT	152	Network Security Fundamentals	3
CIT	155	Introduction to Computer Forensics.....	3
CIT	156	Digital Evidence Recovery.....	3
CIT	250	Advanced LAN Administration	3
CIT	251	Implementing and Administering Security in Windows	3
CIT	252	Hardening the Infrastructure	3
CIT	253	Network Defense and Countermeasures	3
CIT	256	Advanced Digital Evidence Recovery	3

Total Hours for Certificate36

WEB PROGRAMMING (Certificate) Plan 22CN

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	270	Server Side Programming	3
CIT	271	Markup Language Programming	3

Total Hours for Certificate18

C++ PROGRAMMING (Certificate) Plan 22CO

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	113	Introduction to SQL	3
CIT	141	Programming in C++	4
CIT	233	Programming in Visual C++	3
CIT	239	Systems Analysis	3
CIT	241	Advanced C++	3

Total Hours for Certificate16

JAVA PROGRAMMING (Certificate) Plan 22CP

The Java Programming certificate is centered in object oriented technologies. This certificate is intended to enhance programming skills by providing knowledge and experience in the Java language in a minimal amount of time. It includes interaction with databases and the utilization of a systems approach to problem solving.

CIT	113	Introduction to SQL	3
CIT	137	Object Oriented Programming using Java	3
CIT	236	Programming Using JavaBeans	3
CIT	237	Enterprise Java Development	3
CIT	271	Markup Language Programming	3

Total Hours for Certificate15

VISUAL BASIC PROGRAMMING (Certificate) Plan 22CQ

The Visual Basic Programming certificate is centered in object oriented technologies. It is intended to enhance programming skills by providing knowledge and experience in the Visual Basic language in a minimal amount of time. It includes interaction with databases and the utilization of a systems approach to problem solving.

CIT	113	Introduction to SQL	3
CIT	135	Introduction to Visual Basic Programming	3
CIT	234	Objects and Components Using Visual Basic	3
CIT	235	Enterprise Database Access using Visual Basic	3
CIT	239	Systems Analysis	3

Total Hours for Certificate15

Associate in Applied Science and Career Certificates

COMPUTER FORENSICS TECHNICIAN (Certificate) Plan 22CS

This certificate is designed for individuals in both law enforcement and the private sector who wish to learn the skills needed to become a Computer Forensics Technician. The primary responsibility of a Computer Forensics Technician is to investigate and secure evidence on computer hard drives. In addition, a Computer Forensics Technician must also be skilled in crime scene note-taking and report writing.

CIT	120	Introduction to Computers	3
CIT	131	Windows Operating System.....	3
CIT	132	Linux Operating System.....	3
CIT	155	Introduction to Computer Forensics.....	3
CIT	156	Digital Evidence Recovery.....	3
ELT	151	PC Hardware Fundamentals.....	3

Total Hours for Certificate18

COMPUTER FORENSICS ANALYST (Certificate) Plan 22CT

This certificate 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 responsibility of a Computer Forensics Analyst is to investigate, secure, and analyze evidence on computer hard drives and networks. In addition to courses in Computer Forensics, Operating Systems, and Networking, Network Security courses are included to prepare students for Computer Forensics careers. Students will learn crime scene notetaking, report writing, and presentation of findings.

CIT	120	Introduction to Computers	3
CIT	131	Windows Operating System.....	3
CIT	132	Linux Operating System.....	3
CIT	150	Introduction to Local Area Networks.....	3
CIT	152	Network Security Fundamentals	3
CIT	155	Introduction to Computer Forensics.....	3
CIT	156	Digital Evidence Recovery.....	3
CIT	256	Advanced Digital Evidence Recovery	3
CIT	258	Network Forensics	4
CIT	259	Topics in Computer Forensics	1-3
ELT	151	PC Hardware Fundamentals.....	3

Total Hours for Certificate32-34

SECURITY ADMINISTRATION (Certificate) Plan 22CV

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.

CIT	152	Network Security Fundamentals	3
CIT	155	Introduction to Computer Forensics.....	3
CIT	156	Digital Evidence Recovery.....	3
CIT	251	Implementing and Administering Security in Windows	3
CIT	252	Hardening the Infrastructure	3
CIT	253	Network Defense and Countermeasures	3
CIT	256	Advanced Digital Evidence Recovery	3
CIT	258	Network Forensics	4

Total Hours for Certificate25

GAME DEVELOPMENT (Certificate) Plan 22CX

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	Programming Concepts using Visual Basic <i>or</i>	
CIT	136	Programming Concepts using Java	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 Certificate28

ORACLE ADMINISTRATOR CERTIFIED ASSOCIATE (Certificate) Plan 22CY

This certificate provides students with the knowledge and skills needed to sit for the Oracle Database Administrator Certified Associate certification exam. The curriculum for the Oracle Administrator Certified Associate certificate uses coursework supplied by Oracle. College of Lake County is a member of the Oracle Academic Initiative which gives CLC access to Oracle software, coursework, and other items used in our Oracle classes.

CIT	112	Comprehensive Database	3
CIT	113	Introduction to SQL	3
CIT	212	Oracle Database Administration I	3

Total Hours for Certificate9

ORACLE ADMINISTRATOR CERTIFIED PROFESSIONAL ASSOCIATE (Certificate) Plan 22CZ

This certificate provides students with the knowledge and skills needed to sit for the Oracle Database Administrator Certified Professional certification exam. The curriculum for the Oracle Administrator Certified Professional certificate uses coursework supplied by Oracle. College of Lake County is a member of the Oracle Academic Initiative which gives CLC access to Oracle software, coursework, and other items used in Oracle classes.

CIT 112	Comprehensive Database	3
CIT 113	Introduction to SQL	3
CIT 212	Oracle Database Administration I	3
CIT 213	Oracle Database Administration II.....	3

Total Hours for Certificate12

For more information on recommended courses or program specific advising, contact the following faculty members or the Business Division at (847) 543-2041:

Changyi Chen	Dan Dainton	Ellen Dykeman
Sanjay Kumar	John North	Bob Scherbaum

COMPUTERIZED NUMERICAL CONTROL PROGRAMMING

**Engineering, Math and Physical Sciences Division
Room T102, (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. To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select the General Education electives from the requirements listed on page 89. All course prerequisites must be met.

Required General Education Coursework	15
CMM 111	Communication Skills
ECO 110	Economics for Business and Industry
ENG 120	Technical Composition I <i>or</i>
ENG 121	English Composition I

MTH 115	Applied Mathematics II	3
	Humanities or Fine Arts Elective*	3

Required Phase I Coursework9

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 Coursework10

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 Coursework9

CAD 171	Introduction to Inventor <i>or</i>	
CAD 173	Introduction to SolidWorks <i>or</i>	
CAD 176	Introduction to Pro-Engineer	3
CNC 215	Advanced Mill Programming.....	3
	Technical Elective	3

Required Phase IV Coursework15-16

CNC 216	Advanced Lathe Programming.....	3
CNC 217	Intro 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 Coursework6

MTH 117	Technical Mathematics I	3
	Social Science Elective	3

Total Hours for AAS Degree64-65

Technical Electives

Select six hours from the list below. Approval of technical electives must be obtained from the program advisor.

CAD 174	SolidWorks II	3
CAD 276	Pro-Engineer 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	2

Associate in Applied Science and Career Certificates

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

CNC OPERATIONS (Certificate) Plan 24NH

Students will learn the operations of a modern FANUC and HAAS CNC controlled vertical mills, turning center, and vertical machining centers.

Phase I.....	9
CNC 110 CNC Operations I.....	3
MTT 110 Machine Trades Blueprint Reading	3
MTT 112 Machining Principles <i>or</i>	
MTT 210 Machine Shop II	3
Phase II	6
CNC 210 CNC Operations II	3
MTH 114 Applied Mathematics I.....	3
Total Hours for Certificate	15

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.

CONSTRUCTION MANAGEMENT TECHNOLOGY

**Engineering, Math and Physical Sciences Division
Room T102, (847) 543-2044**

CONSTRUCTION MANAGEMENT TECHNOLOGY (Associate in Applied Science) Plan 24BA

This program prepares students to work as entry-level construction management technicians in the construction industry. This degree is particularly well-suited for students with field experience in construction trades who desire a more management-oriented position. Job opportunities include positions in estimating, supervision, scheduling, procurement, inspection and testing, site layout design and drafting. Employers include construction firms, suppliers, architects, material testing and inspection companies, and department of public works. Graduate may also transfer many of the program's credits toward a B.S. in Construction Management from area schools.

For students interested in **Sustainable Energy and Design**, please see page 172 for options, or contact the identified department chair for more information.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework	15
ARC 228 History of Architecture <i>or</i> Humanities or Fine Arts Elective*	3
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech.....	3
ENG 120 Technical Composition <i>or</i>	
ENG 121 English Composition I	3
ECO 110 Economics for Business and Industry <i>or</i>	
ECO 222 Principles of Microeconomics <i>or</i> Social Science Elective*	3
MTH 117 Technical Mathematics I <i>or</i>	
MTH 123 Trigonometry <i>or</i>	
MTH 144 Pre-Calculus	3-5

Required Construction Management Coursework	46
ACC 121 Financial Accounting <i>or</i>	
BUS 115 Elements of Supervision <i>or</i>	
BUS 121 Introduction to Business	3-4
CIV 111 Basic Surveying <i>or</i>	
CMT 111 Construction Layout	3-4
CIV 113 Construction Inspection and Safety	3
CIV 214 Civil Materials and Testing	3
CMT 110 Introduction to the Built Environment	1
CMT 112 Construction Blueprint Reading.....	3
CMT 113 Construction Materials	3
CMT 114 Introduction to AEC Computer Applications	2

CMT 117	Construction Methods	3	CMT 214	Construction Estimating	3
CMT 118	Mechanical and Electrical Equipment	3	CMT 215	Construction Management <i>or</i>	
CMT 119	Specifications and Building Codes	3	EWE 220	Cooperative Work Experience I	3
CMT 211	Job Scheduling and Control	3	MTH 117	Technical Mathematics I <i>or</i>	
CMT 212	Principles of Heavy Construction Methods	3	MTH 123	Trigonometry <i>or</i>	
CMT 213	Construction Law and Documents	3	MTH 144	Pre Calculus	3-5
CMT 214	Construction Estimating	3			
CMT 215	Construction Management <i>or</i>				
EWE 220	Cooperative Work Experience I	3			
	Technical Elective (see below).....	3			
Total Hours for AAS Degree		63-67	Total Hours for Certificate		

Total Hours for AAS Degree
Technical Electives:[^]

Select 3 hours from the list below:

ACC 112	Accounting Procedures.....	3
ACC 121	Financial Accounting	3
ARC 121	Architectural Graphics	3
BUS 219	Small Business Management	3
BUS 221	Business Law I	3
CAD 117	Introduction to AutoCAD	3
CIT 211	Project Management Software	3
CIV 131	GIS/GPS Applications for Civil and Surveying Technology	3
CMT 115	Carpentry I	3
CMT 299	Special Topics in Construction Management Technology	3
ISE 110	Industrial Electricity	3
RAC 131	Plumbing and Pipefitting I	3

Many courses may transfer to a four-year college or university towards a Bachelor in Science degree in Construction Management. Courses required for transfer vary by school. Students should consult with the program advisor to plan an individualized curriculum based on their specific needs.

[^] Electives may be substituted for individual courses in construction management core upon consultation with advisor in order to meet specific student learning objectives and/or job requirements.

**CONSTRUCTION MANAGEMENT
TECHNOLOGY
(Certificate) Plan 24BF**

This certificate is intended for students desiring to focus on a career in construction management or supervision, and who may already have work experience in the construction field. Courses include the core courses from the AAS degree program that are most closely linked to immediate employment opportunities. Job opportunities include estimating, scheduling, procurement, and field supervision. Other CMT courses may be substituted upon consultation with program advisor.

CMT 112	Construction Blueprint Reading.....	3
CMT 113	Construction Materials	3
CMT 114	Introduction to AEC Computer Applications	2
CMT 117	Construction Methods	3
CMT 211	Job Scheduling and Control	3

CRIMINAL JUSTICE

Social Science Division, Room A244, (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 advisor in planning their program of study.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework		15
CMM 121	Fundamentals of Speech.....	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I	3
PSC 121	American National Politics <i>or</i>	
PSC 122	State and Local Politics	3
	Humanities or Fine Arts Elective*	3
	Science or Math Elective*	3

Required Criminal Justice Coursework		39
CRJ 121	Introduction to Criminal Justice	3
CRJ 122	Introduction to Policing	3
CRJ 123	Introduction to Criminology.....	3
CRJ 124	Penology and Corrections	3
CRJ 221	Criminal Law	3
CRJ 222	Criminal Procedural Law	3
CRJ 229	Juvenile Delinquency	3
CRJ 270	Criminal Justice Assessment Seminar	3
	CRJ Electives (see next page)	15

Additional Required Coursework		6
PSY 121	Introduction to Psychology	3
SOC 121	Introduction to Sociology	3

Total Hours for AAS Degree

Associate in Applied Science and Career Certificates

CRJ Program Electives

Select 15 credit hours from the list below:

CIT	155	Introduction to Computer Forensics.....	3
CRJ	117	Community-Based Corrections	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	248	Psychology of the Criminal Mind	3
		(Cross-listed as PSY 248)	
EDM		Elective	3
EWE	220	Cooperative Work Experience I	3
EWE	270	Cooperative Work Experience II	3
HUX	170	Introduction to Substance Abuse	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
		Approved CRJ Program Electives	15

Total Hours for Certificate30

For more information on recommended courses or program specific advising, contact the following faculty members or the Social Science division at (847) 543-2047:

Tom Arnold Roger Voltz Frank Zera

DENTAL HYGIENE

**Biological and Health Sciences Division, Room C140,
(847) 543-2042**

DENTAL HYGIENE (Associate in Applied Science) Plan 21DH

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 AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. 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.

To be considered for admission to the Dental Hygiene Program, students must:

1. Attend one Program Information Session. Attendance must be within two years of the screening deadline. Call the division office at (847) 543-2042 or check the website (www.clcillinois.edu) for meeting information.
2. Submit the following records directly to Admission and Records:
 - A. Application for admission to the college
 - B. Official transcript/test results (directly from the appropriate institution) meeting the listed criteria:
 1. records from the last high school you attended. Date of graduation must appear on the transcript. If you did not or will not graduate from high school, you must submit your official GED test results, **or**
 2. college or university records from a regionally accredited institution documenting completion of an associate degree or bachelor's degree. The transcript must indicate which degree was awarded and the date conferred.
 - C. Official transcripts from any previous college(s) showing course work relevant to the Dental Hygiene selection criteria, sent directly to CLC by the colleges
 - D. Dental Hygiene request for screening
3. Minimum Selection Criteria: Student records must indicate the following:
 - A. High school graduate or the equivalent
 - B. Demonstration of language proficiency and basic algebra readiness
 - C. Successful completion of BIO 121, BIO 123, or BIO 161 with a grade of "C" or better or an equivalent course from another accredited college (must be regionally accredited) with a grade of "C" or better.
 - D. Successful completion of BIO 244 with a grade of "C" or better or an equivalent course from another accredited college (must be regionally accredited) with a grade of "C" or better.+

- E. Successful completion of CHM 120 or CHM 121 with a grade of "C" or better or an equivalent course from another accredited college (must be regionally accredited) with a grade of "C" or better.
 - F. Attendance at a Dental Hygiene Program Information Session within two years of the screening date.
 - G. Completion of the National League for Nursing Pre-Admission Entrance Exam (NLN).
- + If BIO 124 has been taken, BIO 244 and BIO 245 are not needed.

Note: Applicants may take the NLN test only twice per screening year. Scores for the NLN test will only be accepted if the test dates are at least six months apart. If tests are not taken within the scheduled guidelines, only the first score will be considered for screening. Test scores taken more than three years prior to the screening deadlines will not be considered.

Screening Deadline: First Wednesday in February

Please contact the Testing Center at (847) 543-2076 for test dates and times.

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.

Required General Education Coursework15

- CMM 111 Communication Skills *or*
- CMM 121 Fundamentals of Speech *or*
- CMM 123 Dynamics of Small Group Discussion *or*
- CMM 128 Interviewing Practices3

ENG 121	English Composition I	3
PSY 121	Introduction to Psychology	3
SOC 121	Introduction to Sociology.....	3
	Humanities or Fine Arts Elective	3

Additional Required Coursework (see above)8

BIO 245	Anatomy and Physiology II	4
BIO 246	Microbiology	4

Required Dental Hygiene Coursework56

First Semester12

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 Semester13

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 Session8

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 AAS Degree79

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 B210, (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 AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework15

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 Elective* .....3

Required Digital Media and Design Coursework18

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	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	3
ART 123	Color and Design Techniques	3
ART 221	Three Dimensional Design.....3	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	3
DMD 174	Typography.....3	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	3
DMD 113	History of Graphic Design	3
DMD 115	Internet Fundamentals	3
DMD 116	Web Design and Development.....3	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	3
DMD 256	Dynamic Web Design and Development ..3	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 AAS degree66

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	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	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 AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework15

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 Elective	3

Required Digital A/V Production and Editing Coursework42

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 <i>or</i>	
ENG 220	Introduction to Scriptwriting for Video, TV, and Film	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 Coursework6

BUS 121	Introduction to Business <i>or</i>	
BUS 219	Small Business Management <i>or</i>	
BUS 290	Business Plan Development	3
DNC	Elective <i>or</i>	
HUM 123	Introduction to Film <i>or</i>	
HUM 222	Film and Society <i>or</i>	
MUS	Elective	3

Total Hours for AAS Degree63

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

MULTIMEDIA PRESENTATIONS (Certificate) Plan 23TE

AOS 215	Presentation Software.....	2
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 Certificate14

MULTIMEDIA COMMUNICATIONS (Certificate) Plan 23TH

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
DMD	Elective	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

Total Hours for Certificate36

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

Associate in Applied Science and Career Certificates

EARLY CHILDHOOD EDUCATION

Social Science Division, Room A244, (847) 543-2047

EARLY CHILDHOOD EDUCATION (Associate in Applied Science) Plan 25EA

The Associate in 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 in and directors of day care centers, preschools, and school-age programs. Public school Pre-K programs employ AAS degree graduates as assistant teachers. Many of the courses transfer to four year institutions with related programs.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework	15
CMM 121 Fundamentals of Speech.....	3
ENG 120 Technical Composition <i>or</i>	
ENG 121 English Composition I	3
BIO 120 Environmental Biology <i>or</i>	
BIO 123 Principles of Biology <i>or</i>	
BIO 141 Concepts in Biology <i>or</i>	
MTH 121 Mathematics for Elementary Teaching <i>or</i>	
MTH 141 Quantitative Literacy <i>or</i>	
PHY 120 Practical Aspects of Physics	3-4
PSY 121 Introduction to Psychology	3
Humanities or Fine Arts Elective*	3

Required Early Childhood Education Coursework.....	44
ECE 115 Music Activities for Young Children	3
ECE 116 Creative Activities	3
# ECE 121 Introduction to ECE	3
ECE 129 Language Development and Early Literacy.....	3
ECE 132 Professional Ethics in ECE	1
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 232 Math and Science for Young Children.....	3
ECE 233 The Special Needs Child in ECE	3
ECE 241 Guidance and Social Development	3
ECE 270 Org and Administration of ECE Programs ..	3
ECE 276 Early Childhood Practicum	4
ECE Electives (see below)	3

Additional Required Coursework	3
PSY 222 Child Growth and Development	3

Total Hours for AAS Degree62-63

ECE Program Electives

Select three hours from the list below:

ECE 117 Creative Activities for Infants and Toddlers	3
ECE 231 School-Age Programming	3
ECE 299 Special Topics in ECE	1-3
EDU 222 The Exceptional Child	3
EDU 223 Technology in the Classroom	3
EDU 224 Diversity in Schools and Society	3

ECE 121 requires 15 hours of observation in the schools,
ECE 214 requires 20 hours of observation in the schools, and
ECE 220 requires 30 hours of observation in the schools.

EARLY CHILDHOOD EDUCATION (Certificate) Plan 25EB

This certificate is intended for students who already hold degrees or who have taken extensive coursework in other academic fields. The certificate provides the additional study often required after a career change.

# ECE 121 Introduction to ECE	3
ECE 141 Health, Safety and Nutrition	3
# ECE 220 Observation and Assessment	3
ENG 120 Technical Composition <i>or</i>	
ENG 121 English Composition I	3
PSY 121 Introduction to Psychology	3
PSY 222 Child Growth and Development	3
Electives (see below)	15

Total Hours for ECE Certificate33

Early Childhood Education Certificate Electives

Select 15 hours from the list below:

ECE 115 Music Activities for Young Children	3
ECE 116 Creative Activities	3
ECE 129 Language Development and Early Literacy.....	3
# ECE 214 Group Care of Infants and Toddlers.....	3
ECE 223 Child, Family and Community.....	3
ECE 232 Math and Science for Young Children.....	3
ECE 233 The Special Needs Child in ECE <i>or</i>	
EDU 222 The Exceptional Child	3
ECE 241 Guidance and Social Development	3
ECE 270 Org and Administration of ECE Programs	3
ECE 299 Special Topics in ECE	1-3
EDU 299 Special Topics in Education	1-3

INFANT-TODDLER SPECIALIST (Certificate) Plan 25EC

This certificate program prepares individuals with the knowledge and skills required to work successfully with infants and toddlers in child care programs. All of the courses in this certificate also apply to the AAS degree in Early Childhood Education.

ECE 117 Creative Activities for Infants and Toddlers	3
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(Continued)

ECE 141	Health Safety Nutrition	3
# ECE 214	Group Care of Infants and Toddlers.....	3
ENG 120	Technical Composition I or	
ENG 121	English Composition I	3
PSY 121	Introduction to Psychology	3
PSY 222	Child Growth and Development	3

Total Hours for Certificate**18**

ECE 121 requires 15 hours of observation in the schools,
ECE 214 requires 20 hours of observation in the schools, and
ECE 220 requires 30 hours of observation in the schools.

SCHOOL-AGED CHILD CARE (Certificate) Plan 25ED

This certificate prepares individuals to work successfully with school-age children in out-of-school programs. Emphasis is placed on teaching practices necessary to plan and deliver developmentally appropriate programming and to create environments and interactions for children aged six to twelve years that meet the social, emotional, physical and cognitive needs of this age group.

ECE 231	School-Age Programming	3
ENG 120	Technical Composition or	
ENG 121	English Composition I	3
PSY 121	Introduction to Psychology	3
PSY 222	Child Growth and Development	3
	School-Aged Child Care Electives (see below)	6

Total Hours for Certificate**18**

School-Aged Child Care Electives

Select 6 hours from the list below:		
ART 125	Art for Elementary Teachers	2
ECE 116	Creative Activities	3
ECE 132	Professional Ethics in ECE	1
ECE 141	Health, Safety and Nutrition	3
ECE 223	Child, Family, and Community	3
# EDU 222	The Exceptional Child	3
ENG 249	Children's Literature.....	3
PED 129	Fundamentals of Youth Programming	4

HOME BASED CHILD CARE (Certificate) Plan 25EE

This certificate program provides individuals with the knowledge and skills required to successfully operate a home-based child care facility/program. Emphasis is placed on teaching practices necessary to plan and deliver developmentally appropriate programming, environments and interactions to young children.

ENG 120	Technical Composition I or	
# ENG 121	English Composition I	3
ECE 116	Creative Activities	3
ECE 117	Creative Activities for Infants and Toddlers	3
ECE 121	Introduction to Early Childhood Education or	

ECE 129	Language Development and Early Literacy or	
# ECE 214	Group Care of Infants and Toddlers or	
ECE 223	Child, Family and Community.....	3
ECE 133	Home-Based Child Care Management.....	3
ECE 141	Health, Safety and Nutrition	3
PSY 121	Introduction to Psychology	3
PSY 222	Child Growth and Development	3

Total Hours for Certificate**24**

ADMINISTRATION AND LEADERSHIP IN EARLY CHILDHOOD EDUCATION (Certificate) Plan 25EF

This certificate is intended for students who already hold degrees or who have taken extensive coursework in other academic fields. 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.....	18
# ECE 121	Intro to Early Childhood Education
ECE 141	Health, Safety, and Nutrition
ECE 223	Child, Family, and Community
ECE 270	Administration of ECE Programs
EDU 223	Technology in the Classroom
PSY 222	Child Growth & Development

Required Business Coursework	3
BUS 115	Elements of Supervision or
BUS 121	Introduction to Business or
BUS 122	Principles of Marketing

Required Communication Coursework.....	6
CMM 122	Business/Professional Speaking or
CMM 123	Dynamics/Small Group Discuss or
CMM 127	Intercultural Communication or
CMM 128	Interviewing Practices

Required Special Topics Coursework	3
ECE 299	Special Topics in Early Childhood Education or
EDU 299	Special Topics in Education or
HUS 299	Special Topics in Human Services

Special Topics courses must focus on topics such as leadership, advocacy, fundraising, research, grant-writing, administration, human resource development, business communications, or a topic approved by the Department Chair.

Total Hours for Certificate**30**

For more information on recommended courses or program specific advising, contact the following faculty members or the Social Science division at (847) 543-2047.

Kathleen Johnston Diane Wolter

Associate in Applied Science and Career Certificates

EDUCATION PARAPROFESSIONAL

Social Science Division, Room A244, (847) 543-2047

EDUCATION PARAPROFESSIONAL (Associate in Applied Science) Plan 25TC

This program prepares students to work successfully as teacher aides primarily in elementary and middle schools.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework15

ANT 121	Introduction to Anthropology <i>or</i>	
ANT 221	Cultural Anthropology <i>or</i>	
GEG 122	Cultural Geography <i>or</i>	
GEG 123	World Regional Geography <i>or</i>	
HST 126	History of Contemporary Non-Western Civ <i>or</i>	
HST 127	History of Chinese Culture and Society.....3	
ART 121	Introduction to Art <i>or</i>	
ART 240	Art History I <i>or</i>	
MUS 124	Introduction to Music <i>or</i>	
MUS 224	Music Literature <i>or</i>	
PHI 125	Introduction to Ethics .....3	
BIO 120	Environmental Biology <i>or</i>	
BIO 141	Concepts in Biology <i>or</i>	
ESC 120	Earth Science <i>or</i>	
ESC 140	Introduction to Astronomy <i>or</i>	
GEG 121	Physical Geography <i>or</i>	
MTH 121	Mathematics of Elementary Teaching I <i>or</i>	
PHY 120	Practical Aspects of Physics .....3-4	
CMM 121	Fundamentals of Speech.....3	
ENG 121	English Composition I .....3	

Required Paraprofessional Coursework46

ECE 129	Language Development and Early Literacy .....3	
# ECE 121	Early Childhood Education <i>or</i>	
# EDU 121	Introduction to Teaching .....3	
EDU 222	The Exceptional Child .....3	
# EDU 122	Pre-Clinical Educator Experience .....1	
EDU 223	Technology in the Classroom.....3	
# EDU 225	Educational Psychology .....3	
ENG 249	Children's Literature.....3	
PSY 121	Introduction to Psychology .....3	
PSY 222	Child Growth and Development .....3	
MTH 121	Mathematics for Elementary Teaching I <i>or</i>	
MTH 221	Mathematics for Elementary Teaching II.....3	
	Education Paraprofessional Electives (see next column)18	

Additional Required Coursework3

ENG 122	English Composition II3
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Total Hours for AAS Degree63

Education Paraprofessional Electives

Select 18 hours from the list below:

ANT 221	Cultural Anthropology	3
ART 125	Art for Elementary Teachers I	2
ART 126	Art for Elementary Teachers II.....2	
BIO 120	Environmental Biology	4
BIO 141	Concepts in Biology	4
CRJ 229	Juvenile Delinquency	3
ECE 115	Music Activities for Young Children	3
ECE 223	Child, Family, and Community	3
EDU 299	Special Topics in Education (w/Chair's consent)	3
GEG 121	Physical Geography	3
HST 221	U.S. History to 1876.....3	
HST 222	U.S. History from 1876	3
HUS 121	Health and Nutrition <i>or</i>	
ECE 141	Health, Safety and Nutrition	3
HUX 170	Introduction to Substance Abuse	3
PSY 226	Adolescent Development	3
SOC 224	Sociology of the Family	3
SPA 121	Beginning Conversational Spanish	4

The noted number of observation hours of observation in the schools are required for these courses:

ECE 121	15 Hours	EDU 225	15 Hours
EDU 121	15 Hours	EDU 122	30 Hours
EDU 222	15 Hours		

PARAPROFESSIONAL EDUCATOR (Certificate) Plan 25TB

This certificate program is designed for individuals who are currently working as teacher's aides or considering a career as a teacher aide.

# ECE 121	Introduction to Early Childhood Education <i>or</i>	
# EDU 121	Introduction to Teaching	3
ECE 129	Language Development and Early Literacy	3
# EDU 222	The Exceptional Child	3
EDU 223	Technology in the Classroom.....3	
# EDU 225	Educational Psychology	3
ENG 249	Children's Literature.....3	
MTH 121	Mathematics for Elementary Teaching I <i>or</i>	
MTH 221	Mathematics for Elementary Teaching II.....3	
PSY 222	Child Growth and Development	3
	Electives (select from List 1 below).....6-8	
	Electives (select from List 2 below) .....6	

Total Hours for Certificate36-38

Electives – List 1

Choose 6-8 hours from the list below:

ANT 121	Introduction to Anthropology	3
ANT 221	Cultural Anthropology	3
ART 121	Introduction to Art	3
ART 240	Art History I	3
BIO 120	Environmental Biology	4
BIO 141	Concepts in Biology	4

CMM 121	Fundamentals of Speech.....	3
ENG 121	English Composition I	3
ENG 122	English Composition II	3
ESC 120	Earth Science	4
ESC 140	Introduction to Astronomy	4
GEG 121	Physical Geography	3
GEG 122	Cultural Geography	3
GEG 123	World Regional Geography	3
HST 126	History of Contemporary Non-Western Civ.....	3
HST 127	History of Chinese Culture and Society.....	3
HUM 121	Introduction to Humanities.....	3
MUS 124	Introduction to Music	3
MUS 224	Music Literature	3
PHI 125	Introduction to Ethics	3
PHY 120	Practical Aspects of Physics.....	4

Electives – List 2

Choose 6 hours from the list below:

ANT 221	Cultural Anthropology	3
ART 125	Art for Elementary Teachers I	3
ART 126	Art for Elementary Teachers II.....	2
BIO 120	Environmental Biology	4
BIO 161	General Biology I.....	4
CRJ 229	Juvenile Delinquency	3
ECE 115	Music Activities for Young Children	3
ECE 223	Child Family and Community	3
EDU 120	Observation and Guidance of Children	3
EDU 299	Special Topics in Education (w/Chair's consent)	3
GEG 121	Physical Geography	3
HST 221	U.S. History to 1876.....	3
HST 222	U.S. History from 1876	3
HUS 121	Health and Nutrition <i>or</i>	
ECE 141	Health, Safety and Nutrition for Young Children	3
HUX 170	Introduction to Substance Abuse	3
PSY 226	Adolescent Development	3
SOC 224	Sociology of the Family	3
SPA 121	Beginning Conversational Spanish	4

For more information on recommended courses or program specific advising, contact the following faculty members or the Social Sciences division at (847) 543-2047:

Kathleen Johnston Michelle Proctor

ELECTRICIAN APPRENTICESHIP

Engineering, Math and Physical Sciences Division
Room T102, (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 an asterisk (+) are taken at CLC. All other courses are taken at the IBEW Local 150 classrooms.

Year One15

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 Two13

First Semester

CMT 112	Construction Blueprint Reading.....	3
ELC 172	Applied AC Circuit Theory	2
EAP 112	Electrician Apprenticeship Work Experience II	2
	(Continued from 1st semester)	

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 Three15

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
	(Continued from 1st semester)	

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)	

Fourth Year14

First Semester

ELC 171	Programmable Logic Controllers	3
EET 230	Electrical Machines	3
EAP 114	Electrician Apprenticeship Work Experience IV	2

Associate in Applied Science and Career Certificates

Second Semester	Required EET Coursework	32
ELT 117 Industrial Digital Electronics I .....3	EET 113 Solid State Electronics	4
+ HST 222 US History 1876 to Present <i>or</i>	EET 115 Electronic Laboratory Techniques	2
+ HST 225 American Labor History.....3	EET 170 DC Circuit Fundamentals	2
EAP 114 Electrician Apprenticeship	EET 173 DC Analysis-Network Theorems	2
Work Experience IV .....0	EET 174 AC Fundamentals	2
(Continued from 1st semester)	EET 175 AC Analysis & Circuit Theorems	2
Year Five	EET 211 Advanced Solid State Electronics	4
First Semester	EET 212 Electronic Communication Systems	3
+ ARC 228 History of Architecture.....3	EET 213 Introduction to Digital Electronics.....	4
+ CAD 110 CAD/CAM Concepts <i>or</i>	EET 216 Microprocessors I	4
+ CAD 117 Introduction to AutoCAD.....3	EET 230 Electrical Machinery	3
EAP 115 Electrician Apprenticeship		
Work Experience V .....2		
Second Semester	Additional Required Coursework	23
ELT 171 Industrial Control Systems .....3	PSY 122 Psychology in Business and Industry.....	3
EAP 115 Electrician Apprenticeship	ECO 221 Principles of Macroeconomics <i>or</i>	
Work Experience V .....0	ECO 222 Principles of Microeconomics	3
(Continued from 1st semester)	MTH 123 Trigonometry	3
Total Hours for AAS Degree	MTH 145 Calc. and Analytic Geometry I.....	5
68	MTH 146 Calc. & Analytical Geometry II	4
	PHY 121 General Physics	5
Total Hours for AAS Degree	71	

For more information on recommended courses or program specific advising, contact faculty member Fred Scheu or the Engineering, Math and Physical Sciences division at (847) 543-2044.

ELECTRICAL ENGINEERING TECHNOLOGY

Engineering, Math and Physical Sciences Division
Room T102, (847) 543-2044

ELECTRICAL ENGINEERING TECHNOLOGY

(Associate in Applied Science) Plan 24ED

Students are prepared to work in research, instrumentation, design, field service, communication and service laboratories.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework	16
CMM 121 Fundamentals of Speech.....3	
ENG 120 Technical Composition I	3
MTH 122 College Algebra	4
PHI 122 Logic.....	3
SOC 121 Introduction to Sociology.....3	

Total Hours for AAS Degree

ELECTRONICS TECHNOLOGY

(Certificate) Plan 24EF

A minimum of 35 semester hours of credit must be completed for the certificate. Although courses are generally selected from the following, other subjects may be taken as part of a program with division approval.

Minimum Required Coursework	35
Select a minimum of 35 hours from the list below:	
EET 113 Solid State Electronics	4
EET 170 DC Circuit Fundamentals <i>and</i>	
EET 173 DC Analysis-Network Theorems	4
EET 174 AC Fundamentals <i>and</i>	
EET 175 AC Analysis and Circuit Theorems	4
EET 211 Advanced Solid State Electronics	3
EET 212 Electronic Communications Systems.....	3
EET 213 Introduction to Digital Electronics.....	4
EET 216 Microprocessors I	4
ELT 111 Electronic Drafting	2
ELT 116 Technical Programming	3
ELT 217 Microprocessors II	3
MTH 117 Technical Mathematics I	3
MTH 118 Technical Mathematics II	4
PHY 120 Practical Aspects of Physics.....	4

**ELECTRICAL/ELECTRONIC MAINTENANCE
(Certificate) Plan 24EH**

This program provides students with the skills necessary to perform trouble-shooting and maintenance procedures in industry. Students with experience in the field and demonstrating appropriate knowledge may be given advanced standing in the program.

EET	170	DC Circuit Fundamentals.....	2
ELC	113	Basic Instrumentation and Shop Practices	2
ELC	172	Applied AC Circuit Theory	2
ELT	117	Industrial Digital Electronics I.....	3
ELT	118	Industrial Digital Electronics II	3
ELT	171	Industrial Control Systems	3
ELT	172	Applied Communication Systems	3
ELT	173	Applied Analog Circuits.....	3
ENG	120	Technical Composition I <i>or</i>	
ENG	121	English Composition I	3
MTH	114	Applied Mathematics I <i>or</i>	
MTH	117	Technical Mathematics I	3
		Technical Elective (see below)	3-4

Total Hours for Certificate30-32

Technical Electives

CNA	111	Cisco Networking.....	3
CNA	112	Cisco Networking II	3
CNA	113	Cisco Networking III	3
CNA	114	Cisco Networking IV	3
EET	230	Electrical Machinery	3
ELC	114	Motor and Machine Control.....	3
ELC	171	Programmable Logic Controllers	3
ELC	215	Power Transmission and Distribution	4
ELT	151	PC Hardware Fundamentals.....	3
ELT	152	PC Peripherals and Troubleshooting	3
MET	131	Introduction to Robotics.....	3

**PC TECHNICIAN
(Certificate) Plan 22CI**

The PC Technician certificate provides career training for students entering the computer technical support field. The skill sets involved in this certificate provides the training for individuals who install, maintain, upgrade and repair PC hardware and software. This certificate helps prepare the student for the A+ Certification exam. Proficiency credit through examination is available for CIT 120 and EET 170.

CIT	120	Introduction to Computers	3
CIT	130	Operating Systems for A+ Certification.....	3
EET	170	DC Circuit Fundamentals.....	2
ELT	151	PC Hardware Fundamentals.....	3
ELT	152	PC Peripherals and Troubleshooting	3

Total Hours for Certificate14

For more information on recommended courses or program specific advising, contact faculty member Fred Scheu or the Engineering, Math and Physical Science division at (847) 543-2044.

ELECTRONIC INFORMATION TECHNOLOGY

**Engineering, Math and Physical Sciences Division
Room T102, (847) 543-2044**

**ELECTRONIC INFORMATION TECHNOLOGY
(Associate in Applied Science) Plan 24ET**

This degree provides the theoretical background and hands-on training needed to work in the information technology field as a network or computer systems administrator or network technician. The program concentrates on network hardware and software implementation and security, and includes hands-on courses in network testing and troubleshooting, wireless network security, Linux system administration, server development, and network design and deployment. This broad range of software and hardware competencies prepares the student to design, install and support local area networks, wide-area networks, network segments and Internet or intranet systems and provide daily on-site administrative support for software users in a variety of work environments.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework	15	
CMM 121	Fundamentals of Speech.....	3
EIT 110	Topics in Mathematics for Computer and Electronic Technicians	3
ENG 120	Technical Composition I	3
HUM 127	Critical Thinking	3
	Social Science Elective*	3

Required Network Engineering Technology Coursework	30	
EIT 210	Data and Network Communication	4
EIT 211	Network Design and Analysis	4
EIT 212	Applied Linux.....	3
EIT 230	Secure Wireless Networking	3
EIT 232	Linux Server Implementation.....	3
EWE 220	Cooperative Work Experience I <i>or</i> Technical Elective	3
++	EWE 270 Cooperative Work Experience II <i>or</i> Digital and Network Fundamentals	4
EIT 111	Digital and Network Fundamentals	4
++	Technical Electives.....	6

Associate in Applied Science and Career Certificates

Additional Required Coursework	20
CIT 120 Introduction to Computers	3
CIT 131 Windows Operating System	3
CIT 151 LAN Administration	3
EET 170 DC Circuit Fundamentals	2
ELT 151 PC Hardware Fundamentals	3
ELT 152 PC Peripherals and Troubleshooting	3
# Computer Language Elective	3

Total Hours for AAS Degree**65**

++ Select from CIT, CNA, ELC/ELT, EIT or other departmentally approved electives.

Select from the following electives: CIT 134, CIT 135, CIT 136, CIT 137, CIT 141, CIT 170, CIT 171, MCS 124, MCS 140, MCS 141 or other departmentally approved electives.

LINUX SYSTEM ADMINISTRATION

(Certificate) Plan 24ES

CNA 111 CISCO Networking I or	
ELT 151 PC Hardware Fundamentals	3
EIT 111 Digital and Network Fundamentals	3-4
EIT 212 Applied Linux	3
EIT 232 Linux Server Implementation	3
ELT 152 PC Peripherals and Troubleshooting	3

Total Hours for Certificate**15-16**

FIBER OPTICS TECHNICIAN

(Certificate) Plan 24EV

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**

WIRELESS NETWORKING SECURITY (Certificate) Plan 24EU

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 the following faculty members or the Engineering, Math and Physical Science division at (847) 543-2044:

Michelle Leonard

ELECTRONIC SYSTEMS TECHNOLOGY

**Engineering, Math and Physical Sciences Division
Room T102, (847) 543-2044**

ELECTRONIC SYSTEMS TECHNOLOGY (Associate in Applied Science) Plan 24EL

This degree provides advanced knowledge to students who install, repair and maintain a wide range of electronic systems, including industrial control systems, radio and television communication systems, personal computer systems, and consumer audio and video home entertainment systems.

For students interested in **Sustainable Energy and Design**, please see page 172 for options, or contact the identified department chair for more information.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework	15
CMM 121 Fundamentals of Speech or	
CMM 122 Business and Professional Speaking or	
CMM 123 Dynamics of Small Group Discussion or	
CMM 128 Interviewing Practices	3
EIT 110 Topics in Math for Computers and Electrical Technicians	3
ENG 120 Technical Composition I or	
ENG 121 English Composition I	3
Humanities or Fine Arts Elective*	3
Social Science Elective*	3

Required EST Coursework.....	42
EET 115 Electronic Laboratory Techniques	2
EET 170 DC Circuit Fundamentals.....	2
EET 213 Introduction to Digital Electronics.....	4
EET 230 Electrical Machinery	3
ELC 172 Applied AC Circuit Theory	2
ELT 171 Industrial Control Systems.....	3
ELT 172 Applied Communication Circuits.....	3
ELT 173 Applied Analog Circuits.....	3
ELT 214 Microwave Systems and Measurements	3
EST 210 Maintenance and Repair of PC Systems	3
EST 211 Electronics Systems <i>or</i>	
EST 215 Radar Systems	3
EST 212 Systems Control Theory.....	3
EST 213 Digital Telecommunications.....	4
EST 214 Digital Telecommunications II <i>or</i> Technical Electives (see below)	4
 Additional Required Coursework	3
ECO 110 Economics for Business and Industry <i>or</i>	
ECO 221 Principles of Macroeconomics	3
 Total Hours for AAS Degree	60

Technical Electives

Select 4 hours from the list below:

CNA 111 Cisco Networking.....	3
CNA 112 Cisco Networking II	3
CNA 113 Cisco Networking III	3
CNA 114 Cisco Networking IV	3
EET 230 Electrical Machinery	3
ELC 114 Motor and Machine Control.....	3
ELC 171 Programmable Logic Controllers	3
ELC 215 Power Transmission and Distribution	4
ELT 151 PC Hardware Fundamentals.....	3
ELT 152 PC Peripherals and Troubleshooting	3
MET 131 Introduction to Robotics.....	3

For more information on recommended courses or program specific advising, contact faculty member Fred Scheu or the Engineering, Math and Physical Science division at (847) 543-2044.

EMERGENCY AND DISASTER MANAGEMENT

Social Science Division, Room A244, (847) 543-2047

EMERGENCY AND DISASTER MANAGEMENT (Certificate) Plan 25EM

This certificate program is designed to assist students in developing and improving their skills in emergency and disaster management. Students will receive an understanding of federal, state and local government and their roles and

responsibilities. This certificate is intended for students who currently have an interest or role in emergency management and disaster preparedness, including homeland security issues.

EDM 111 Introduction to Emergency Management.....	3
EDM 112 Emergency Planning.....	3
EDM 113 Professional Development: Emergency Management	3
EDM 114 Communications in Emergency Management	3
EDM 211 Emergency Disaster Response	3

 Total Hours for Certificate	15
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For more information on recommended courses or program specific advising, contact the Social Science division at (847) 543-2047.

EMERGENCY MEDICAL TECHNOLOGY

**Biological and Health Sciences Division, Room C140,
(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 AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

 Required General Education Coursework	15
CMM Elective (see page 89 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* (HUM 127, PHI 122 or PHI 125 recommended)	3
PSY 121 Introduction to Psychology <i>or</i> Social Science Elective*	3

Associate in Applied Science and Career Certificates

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.....14-15

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 AAS Degree62-66

+ If BIO 124 has been taken, BIO 244 and BIO 245 are not needed.

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.

EMT 111 Emergency Medical Technician – Basic

Total Hours for Certificate7

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.

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 Certificate30-34

+ If BIO 124 has been taken, BIO 244 and BIO 245 are not needed.

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 Evert Gerritsen (847) 360-2038
EMT-Paramedic Dave Chase (847) 360-2205

Advocate Condell Medical Center

EMT-Paramedic Sharon Hopkins (847) 990-5309

NorthShore University HealthSystem/ Highland Park Hospital

EMT-Basic & Martha Pettineo (847) 480-3787
EMT Paramedic

Important Financial Aid Information

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 may receive financial aid for these programs.

ENGLISH

Communication Arts, Humanities and Fine Arts Division
Room B210, (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. NOTE: ISBE certified teachers may use six eligible courses to apply for the ISBE's ESL Approval.

Required General Education Coursework	12
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
Required Specialty Coursework.....	18
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

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

FIRE SCIENCE TECHNOLOGY

Social Science Division, Room A244, (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 articulated with the Office of the State Fire Marshall and can be applied towards the requirements for Instructor I, Instructor II, Fire Officer I, Fire Officer II, Apparatus Engineer, and Hazmat - 1st Responder.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework	15
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
PSC 122 State and Local Politics	3
Humanities or Fine Arts Elective*	3
Science or Math Elective*	3
Required Fire Science Coursework	39
FST 111 Introduction to Fire Science (Not for active firefighters)	3
FST 116 Tactics and Strategy I	3
FST 173 Fire Instructor I.....	3
FST 177 Fire Prevention Principles I	3
FST 218 Fire Officer Supervision (MGMT I)	3
FST 217 Fire Officer Communications (MGMT II)....	3
FST Fire Science Electives (next page)	21
Additional Required Coursework	6
CIT 119 Introduction to Office Software <i>or</i>	
CIT 120 Introduction to Computers	3
PSY 121 Introduction to Psychology	3

Total Hours for AAS Degree

Associate in Applied Science and Career Certificates

Fire Science Electives

Select 21 hours from the list below:

FST	117	Tactics and Strategy II	3
FST	118	Incident Command	3
FST	119	Fire Apparatus Engineer.....	3
FST	174	Fire Instructor II	3
FST	192	Hazardous Materials First Responder	3
FST	273	Fire Science Business and Operations (MGMT III).....	3
FST	274	Fire Administration and The Law (MGMT IV).....	3
FST	279	Special Topics in the Fire Service	3

A maximum of 7 hours may be selected from the following list towards the FST Electives:

EDM	111	Introduction to Emergency Management.....	3
EDM	112	Emergency Planning.....	3
EDM	113	Professional Development: Emergency Management	3
EDM	114	Communication in Emergency Management	3
EDM	211	Emergency and Disaster Response	3
EMT	111	Emergency Medical Technician Basic	7

For more information on recommended courses or program specific advising, contact the Social Science division at (847) 543-2047.

FOOD SERVICE MANAGEMENT

See Hospitality and Culinary Management on page 144.

HEALTH AND WELLNESS PROMOTION

**Biological and Health Sciences Division, Room C140,
(847) 543-2042**

HEALTH AND WELLNESS PROMOTION (Associate in Applied Science) Plan 21 WA

The focus of the AAS 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.

Required General Education Coursework16-20

BIO	111	Human Form and Function or	
BIO	244	Anatomy and Physiology I and	
BIO	245	Anatomy and Physiology II	4-8
CMM	111	Communication Skills or	
CMM	121	Fundamentals of Speech or	
CMM	123	Dynamics/Small Group Discussion	3
ENG	120	Technical Composition I or	
ENG	121	English Composition I	3
PHI	121	Introduction to Philosophy or	
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
BUS	219	Small Business Management	3
HCM	175	Nutrition or	
HUS	121	Health and 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	290	Principles of Wellness Coaching	3
PED	228	First Aid/CPR	2

Required Specialty Option25

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
		Electives (see below)	14

Massage Therapy Option

MAS	110	Massage Structure and Function I	3
MAS	112	Kinesiology and Palpation I	2
MAS	114	Massage: Business and Communication I	2
MAS	131	Massage Therapy I: Swedish	4
MAS	132	Massage Therapy II: Integrative	4
		Electives (select from MAS courses on page 262.)	10

Wellness Coaching Option

CMM	128	Interviewing Practices	3
PED	242	Philosophy of Coaching	0.5 - 3
PSY	224	Theories of Personality	3
		Electives (see below)	16

Total Hours for AAS Degree60-64

Health and Wellness Promotion Electives:

Select 16 hours from the following subject areas: BIO, BUS, CIT, ECO, HWP, MAS, MIM, MLT, MOA, PED, PSY, or SOC.

**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 or	
BIO 244	Anatomy and Physiology I and	
BIO 245	Anatomy and Physiology II	4-8
HCM 175	Nutrition or	
HUS 121	Health and 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

**WELLNESS COACHING
(Certificate) Plan 21WC**

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.

CMM 128	Interviewing Practices	3
HWP 290	Principles of Wellness Coaching	3
HWP 240	Contemporary Health Issues	3
HWP 257	Health and Wellness Practicum I	1
HWP 258	Health and Wellness Practicum II	1
PED 242	Philosophy of Coaching	3
PSY 121	Introduction to Psychology	3
Total Hours for Certificate		17

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

HEALTH INFORMATION TECHNOLOGY

**Biological and Health Sciences Division, Room C140,
(847) 543-2042**

The field of health information provides a wide variety of professional opportunities in the health care industry. Health information is a unique profession that combines facets of medicine, data management, and information technology, 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, quality improvement specialists, medical billers, transcriptionists, and medical office managers, among others. Work settings include hospitals, HMOs, 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 AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

**HEALTH INFORMATION TECHNOLOGY
(Associate in Applied Science) Plan 21HM****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

Interested students may take HIT 111, 112, 113, 115, 117, 118, 119, and 215 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

Associate in Applied Science and Career Certificates

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 2012, apply by February 2011.) DO NOT APPLY for admission to the program unless you are planning on enrolling in HIT 212 in the fall of next year. 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.

1. Attend a Health Information Technology Information Meeting. Attendance date must be no more than two years prior to the screening deadline of the year for which you are applying. Call the division office at (847) 543-2042 or check the CLC Web site at www.clcillinois.edu/health for meeting information.
 2. Submit the following records to the Admission and Records Office:
 - a. Application for admission to the college.
 - b. Official transcript/test results (sent to the Admission and Records Office directly from the appropriate institution):
 1. Your record from the last high school you attended. Your date of graduation must appear on the transcript. If you did not or will not graduate from high school, you must submit your official GED test results.
- OR**
2. Your college or university (must be regionally accredited) record documenting completion of an associate degree or bachelor degree. The transcript must indicate which degree was conferred and when.
 - c. Official transcripts (sent directly to CLC from the appropriate institution) from any previous college(s) (must be regionally accredited) showing course work relevant to the Health Information Technology Program.
 - d. Results of the National League for Nursing Pre-Admission Entrance Exam (NLN).
 - e. Current Health Information Technology Request for Screening form.
3. Minimum Selection Criteria. Your official transcripts and records must show that you satisfy all of the following criteria:
 - a. High school graduate or equivalent.
 - b. Language proficiency and basic algebra readiness.
 - c. Cumulative GPA of 2.0 or above for any credit courses completed at CLC.
 - d. Completion of the National League for Nursing Pre-Admission Entrance Exam (NLN). Minimum acceptable scores required for admission to the program.

Note: Applicants may take the NLN test only twice per screening year. Scores for the NLN test will only be accepted if the test dates are at least six months apart. If tests are not taken within the scheduled guidelines, only the first score will be considered for screening. Test scores taken more than three years prior to the screening deadlines will not be considered. Please contact the Testing Center at (847) 543-2076 for test dates and times.

Screening deadline: The first Wednesday in February.

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 courses.

Required General Education Coursework .....16-20		
BIO 111	Human Form and Function	or
BIO 244	Anatomy and Physiology I	and
BIO 245	Anatomy and Physiology II	4-8
CMM 111	Communication Skills	or
CMM 121	Fundamentals of Speech	or
CMM 122	Business and Professional Speaking	or
CMM 123	Dynamics of Small Group Discussion	or
CMM 128	Interviewing Practices	3
ENG 120	Technical Composition I	or
ENG 121	English Composition I	3
	Humanities or Fine Arts Elective*	3
	Social Science Elective*	3

Required Health Information Technology Coursework .....41		
HIT 111	Medical Terminology	3
HIT 112	Health Care Delivery Systems	2
HIT 113	Ethical/Legal Aspects of Medical Records	.2
HIT 115	Health Data Content and Structure	3
HIT 117	Basic CPT Coding	3
HIT 118	Basic ICD-9-CM Coding	3
HIT 119	Pharmacology	1
HIT 172	Health Statistics and Registries	2
HIT 212	Professional Practice Experience in Health Information I	4
HIT 213	Professional Practice Experience in Health Information II	2
HIT 214	Organization and Supervision	2
HIT 215	Medical Science	3

(Continued)

HIT 217	Health Information Systems and Data Literacy	3	BIO 111	Human Form and Function or
HIT 218	Seminar in Health Information.....	2	BIO 244	Anatomy and Physiology I and
HIT 219	Quality Management and Performance Improvement	2	BIO 245	Anatomy and Physiology II .....4-8
HIT 271	Advanced Coding	2	HIT 111	Medical Terminology .....3
HIT 272	Reimbursement Systems in Healthcare	2	HIT 114	Medical Transcription.....2
Additional Required Coursework	9	HIT 116	Advanced Medical Transcription	4
AOS 112	Computer Basics/Software Applications or		HIT 119	Pharmacology .....1
CIT 120	Introduction to Computers	3	HIT 215	Medical Science .....3
CIT 111	Comprehensive Spreadsheets or			
CIT 112	Comprehensive Database or			
CIT 119	Introduction to Office Software	3		
	Elective	3		
Total Hours for AAS Degree	66-70			

HIT 172 and HIT 214 will be offered in the spring of 2011 and 2013 ONLY.

HIT 217 and HIT 219 will be offered in the spring of 2012 and 2014 ONLY.

Students should seek the advice of the HIT faculty for course scheduling every semester.

MEDICAL TRANSCRIPTION (Certificate) Plan 21MH

Medical transcriptionists transcribe medical reports dictated by physicians and other health care professionals. These reports include operative reports, pathology reports, history and physical examinations, and other reports. Transcriptionists must have an extensive knowledge of medical terminology, anatomy, medications, and the vocabulary related to the diagnosis and treatment of disease. Accuracy and speed in word processing is also required. Medical transcriptionists are employed by hospitals, physicians offices and transcription services.

Some 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).

Students must earn a grade of "C or better" in all HIT courses.

AOS 113	Comprehensive Word Processing.....	3
AOS 172	Business English.....	3
AOS 175	Keyboarding Speed and Accuracy Building or	
AOS 178	Intermediate Keyboarding.....	2-3

BIO 111	Human Form and Function or	
BIO 244	Anatomy and Physiology I and	
BIO 245	Anatomy and Physiology II .....4-8	
HIT 111	Medical Terminology .....3	
HIT 114	Medical Transcription.....2	
HIT 116	Advanced Medical Transcription	4
HIT 119	Pharmacology .....1	
HIT 215	Medical Science .....3	

Total Hours for Certificate25-30

MEDICAL BILLING SPECIALIST (Certificate) Plan 21HN

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, clinics, and billing services.

Many 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 courses.		
AOS 112	Computer Basics/Software Applications or	
CIT 119	Introduction to Office Software or	
CIT 120	Introduction to Computers	3
BIO 111	Human Form and Function or	
BIO 244	Anatomy and Physiology I and	
BIO 245	Anatomy and Physiology II .....4-8	
HIT 111	Medical Terminology	3
HIT 117	Basic CPT Coding	3
HIT 118	Basic ICD-9-CM Coding	3
HIT 119	Pharmacology .....1	
HIT 171	Insurance Procedures for the Medical Office	3

Total Hours for Certificate20-24

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 or the Biological and Health Sciences division at (847) 543-2042.

HEATING AND AIR CONDITIONING ENGINEERING TECHNOLOGY (Formerly Refrigeration and Air Conditioning)

**Engineering, Math and Physical Sciences Division
Room T102, (847) 543-2044**

The Refrigeration and Air Conditioning 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 Energy and Design**, please see page 172 for options, or contact the identified department chair for more information.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

HET CORE (Certificate) Plan 24RZ

Pending Illinois Community College Board Approval
The HET Core Certificate provides students with the core requirements to succeed and advance in the HVACR workplace. Coursework introduces students to electrical troubleshooting, heat load calculations, and proper customer communications while providing them with the necessary knowledge required to successfully compete in today's HVACR workplace. This certificate is a core component of each of the AAS degrees.

HET	110	Basic Refrigeration Systems	4
HET	111	HVACR Electricity I	4
HET	119	HVACR Electricity II.....	4
HET	190	EPA Certification Preparation	2
HET	191	HVACR Load Calculation	4
MTH	114	Applied Mathematics I.....	3

Total Hours for Certificate21

RESIDENTIAL HEATING TECHNICIAN (Certificate) Plan 24RJ

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 Certificate14

RESIDENTIAL AIR CONDITIONING TECHNICIAN (Certificate) Plan 24RN

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 Certificate14

**COMMERCIAL REFRIGERATION
TECHNICIAN
(Certificate) Plan 24RK**

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

**ENERGY AUDIT
(Associate in Applied Science) Plan 24RO**

Pending Illinois Community College Board Approval

The Energy Audit program prepares students for employment in the areas of energy audit and insulation of residential and commercial buildings. Students will acquire skills in safety, HVAC principles, soldering and brazing, mechanical and electrical troubleshooting, refrigerant handling, the use of refrigerant gauges, electrical test equipment, and blower door testing.

The Energy Audit curriculum is aligned with the educational standards of Residential Energy Services Network (RESNET®) and the Illinois Occupational Skill Standards for HVACR. HET courses in A/C split-systems, residential HVAC, Resnet exam preparation, building insulation, energy auditing, air movement and ventilation, HVACR Codes, EPA and NATE certification preparation, Carpentry, and a HET capstone course meet re-certification requirements for NATE.

The Energy Audit program is a partner of the Residential Energy Services Network (RESNET®). Upon successful completion of second semester courses, students will qualify to sit for the Industry Competency Examination (ICE), the North American Technician Excellence (NATE) exam, or the RESNET® exam which provide passing students recognition on national registries distributed to heating, ventilation, air conditioning, and refrigeration employers and homeowners.

Note: Students are required to provide their own basic tools.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework		12
CMM	Elective (see page 89 for selections)	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I	3
ECO 110	Economics for Bus & Industry <i>or</i>	
	Social Science Elective	3
HUM 127	Critical Thinking <i>or</i>	
	Humanities or Fine Arts Elective	3

Required HET Core Coursework		21
HET 110	Basic Refrigeration Systems	4
HET 111	HVACR Electricity I	4
HET 119	HVACR Electricity II	4
HET 190	EPA Certification Preparation	2
HET 191	HVACR Load Calculation	4
MTH 114	Applied Mathematics I <i>or</i> higher MTH elective (fulfills MTH Gen Ed)	3

Associate in Applied Science and Career Certificates

Required Energy Audit Coursework.....		33
CMT	115	Carpentry I
HET	130	Heating I Residential Appliances
HET	150	Air Conditioning I Split-Systems
HET	192	HVACR Engineering Tech Practicum
HET	194	NATE Certification Preparation
HET	230	Air Movement and Ventilation
HET	290	Building Insulation
HET	291	Energy Auditing
HET	292	Resnet Exam Preparation
HET	293	HVAC Codes
HET	295	HET Capstone
Total Hours Required for AAS		66

ENERGY AUDIT (Certificate) Plan 24RP

Pending Illinois Community College Board Approval

The Energy Audit Certificate program prepares students to specialize in the energy audit and insulation of residential and commercial buildings while preparing them for employment as energy auditors or building insulation technicians, as well as to sit for the Residential Energy Services Network's (RESNET®) exam. Coursework provides an introduction to the energy audit and building insulation industry and emphasize 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/commercial building setting. Students will be given a national exit exam after each advanced course which will give passing students national recognition on the Air Conditioning, Heating, and Refrigeration Institute (AHRI), the North American Technician Excellence (NATE), or the RESNET® national registry which goes to heating, air conditioning, ventilation, and refrigeration employers and homeowners. Students are strongly recommended to also complete the HET core certificate.

Note: Students are required to provide their own basic tools.

CMT	115	Carpentry I	3
HET	130	Heating I Residential Appliances	4
HET	150	Air Conditioning I Split-Systems	4
HET	192	HVACR Engineering Tech Practicum	1
HET	194	NATE Certification Preparation	2
HET	230	Air Movement and Ventilation	4
HET	290	Building Insulation	4
HET	291	Energy Auditing	4
HET	292	Resnet Exam Preparation	1
HET	293	HVAC Codes	3
HET	295	HET Capstone	3

Total Hours for Certificate**33**

HET SUPERVISOR (Associate in Applied Science) Plan 24RQ

Pending Illinois Community College Board Approval

The HET Supervisor AAS program allows students to bridge into positions of management at HVAC contractor firms, commercial building operations firms, or start their own business in one of the HET areas of specialties in the HVAC industry. Students acquire skills in safety, HVAC principles, soldering and brazing, mechanical and electrical troubleshooting, refrigerant handling, the use of refrigerant gauges, electrical test equipment, training principles, project management, and supervision.

The HET Supervisor program is a partner of the Business Division and the Air Conditioning, Heating, and Refrigeration Institute (AHRI). Upon completion of HET courses students qualify to sit for the Industry Competency Examination (ICE), the North American Technician Excellence (NATE), or the RESNET® exam which will give passing students national recognition on national registries which go to heating, ventilation, air conditioning, and refrigeration employers and homeowners.

The HET Supervisor 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 & ventilation, advanced electrical, HVACR codes, EPA and NATE certification preparation, hydronic heating, and a HET capstone course meet re-certification requirements for NATE while Business courses prepare students for roles as supervisors.

Note: Students are required to provide their own basic tools.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework		12
CMM	Elective (See page 89 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

Required HET Core Coursework		21
HET	110 Basic Refrigeration Systems	4
HET	111 HVACR Electricity I	4
HET	119 HVACR Electricity II	4
HET	190 EPA Certification Preparation	2
HET	191 HVACR Load Calculation	4
MTH	114 Applied Mathematics I <i>or</i> higher MTH elective (fulfills MTH Gen Ed)	3

Required HET Supervisor Coursework	12	HET 293 HVAC Codes .....3
HET 194 NATE Certification Preparation	2	HET 295 HET Capstone .....3
HET 250 A/C II Commercial HVAC Appliances <i>or</i>		AOS 112 Computer Basics/Software Applications .....3
HET 252 A/C III Installation and Service <i>or</i>		BUS 115 Elements of Supervision.....3
HET 272 Refrigeration III Commercial Appliance Installation <i>or</i>		BUS 121 Introduction to Business.....3
HET 290 Building Insulation <i>or</i>		BUS 213 Principles of Professional Selling .....3
HET 291 Energy Auditing	4	BUS 219 Small Business Management .....3
HET 293 HVAC Codes	3	BUS 223 Principles of Management .....3
HET 295 HET Capstone	3	BUS 238 Project Management.....3
 Required Business Coursework		 Total Hours for Certificate
18		33
BUS 115 Elements of Supervision.....	3	
BUS 121 Introduction to Business.....	3	
BUS 213 Principles of Professional Selling	3	
BUS 219 Small Business Management	3	
BUS 223 Principles of Management	3	
BUS 238 Project Management.....	3	
 Required Administrative Office Systems Coursework		
3		
AOS 112 Computer Basics/Software Apps	3	
 Total Hours Required for AAS		 66

HET SUPERVISOR (Certificate) Plan 24RR

Pending Illinois Community College Board Approval

The HET Supervisor Certificate program allows students to bridge into positions of management at HVAC contractor firms, commercial building operations firms, or to start their own business in one of the HET areas of specialties. Students learn to use refrigerants, gauges, and electrical test equipment in a variety of settings. Students will be given a national exit exam after each advanced course. Passing students will gain national recognition on the Air Conditioning, Heating, and Refrigeration Institute (AHRI), North American Technician Excellence (NATE), and Residential Energy Services Network (RESNET®) national registry which is distributed to heating, air conditioning, ventilation, and refrigeration employers and homeowners. Students are strongly recommended to also complete the HET core certificate.

Note: Students are required to provide their own basic tools.

HET 194 NATE Certification Preparation	2
HET 250 A/C II Commercial HVAC Appliances <i>or</i>	
HET 252 A/C III Installation and Service <i>or</i>	
HET 272 Refrigeration III Commercial Appliance Installation <i>or</i>	
HET 290 Building Insulation <i>or</i>	
HET 291 Energy Auditing	4

HET 293 HVAC Codes	3
HET 295 HET Capstone	3
AOS 112 Computer Basics/Software Applications	3
BUS 115 Elements of Supervision.....	3
BUS 121 Introduction to Business.....	3
BUS 213 Principles of Professional Selling	3
BUS 219 Small Business Management	3
BUS 223 Principles of Management	3
BUS 238 Project Management.....	3

 Total Hours for Certificate	 33
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HVAC OFFICE ASSISTANT (Certificate) Plan 24RV

Pending Illinois Community College Board Approval

The HVAC Office Assistant Certificate program is designed to prepare individuals for a career as an HVACR dispatcher, HVACR over-the-counter parts sales person, or HVACR stockroom assistant.

HET 110 Basic Refrigeration Systems	4
HET 111 HVACR Electricity I	4
HET 190 EPA Certification Preparation	2
AOS 111 Business Communications	3
AOS 112 Computer Basics/Software Apps	3
AOS 178+ Intermediate Keyboarding	3

+ A Keyboard test is required for AOS 178, or AOS 170 and AOS 171 will be required.

 Total Hours for Certificate	 19
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INDUSTRIAL REFRIGERATION (Associate in Applied Science) Plan 24RB

The Industrial Refrigeration AAS program allows students to specialize in the design, layout, installation, and service of industrial refrigeration equipment and prepares them for service and insulation positions in the HVACR industry. 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.

Associate in Applied Science and Career Certificates

The Industrial Refrigeration 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, commercial refrigeration advanced electrical, HVACR codes, direct digital controls, EPA and NATE certification preparation, and a HET capstone course meet re-certification requirements for NATE.

The Industrial Refrigeration program is a partner of the Air Conditioning, Heating, and Refrigeration Institute (AHRI). Upon successful completion of the second semester coursework, students qualify to sit for the Industry Competency Examination (ICE), a nationally recognized credential in the HVACR industry which will offer passing students national recognition on an AHRI or North American Technician Excellence (NATE) national registries distributed to heating, ventilation, air conditioning, and refrigeration employers.

Note: Students are required to provide their own basic tools.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework		12
CMM	Elective (See page 89 for selections)	3
ECO	110 Economics for Business & Industry <i>or</i> Social Science Elective	3
ENG	120 Technical Composition I <i>or</i>	
ENG	121 English Composition I	3
HUM	127 Critical Thinking <i>or</i> Humanities or Fine Arts Elective	3

Required HET Core Coursework		21
HET	110 Basic Refrigeration Systems	4
HET	111 HVACR Electricity I	4
HET	119 HVACR Electricity II	4
HET	190 EPA Certification Preparation	2
HET	191 HVACR Load Calculation	4
MTH	114 Applied Mathematics I or higher MTH elective (fulfills MTH Gen Ed)	3

Required Industrial Refrigeration Coursework.....		33
HET	150 Air Conditioning I Split-Systems	4
HET	170 Refrigeration I Small Appliances	4
HET	172 Refrigeration II Commercial Appliances	4
HET	194 NATE Certification Preparation	2
HET	219 HVACR Electricity III	4
HET	272 Refrigeration III Commercial Appliance Installation	4
HET	273 Direct Digital Controls	5
HET	293 HVAC Codes	3
HET	295 HET Capstone	3

Total Hours Required for AAS**66**

INDUSTRIAL REFRIGERATION (Certificate) Plan 24RH

The Industrial Refrigeration Certificate program allows students to specialize in industrial refrigeration while preparing them for employment as industrial refrigeration equipment technicians. After completing the HET Core Certificate these courses provide an introduction to the industrial refrigeration 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 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. Students are strongly recommended to also complete the HET core certificate.

Note: Students are required to provide their own basic tools.

HET	150	Air Conditioning I Split-Systems.....	4
HET	170	Refrigeration I Small Appliances	4
HET	172	Refrigeration II Commercial Appliances	4
HET	194	NATE Certification Preparation	2
HET	219	HVACR Electricity III	4
HET	272	Refrigeration III Commercial Application Installation	4
HET	273	Direct Digital Controls	5
HET	293	HVAC Codes	3
HET	295	HET Capstone	3
Total Hours for Certificate			33

LIGHT COMMERCIAL HVAC (Associate in Applied Science) Plan 24RC

Pending Illinois Community College Board Approval

The Light Commercial HVAC AAS program prepares students to specialize in the design, layout, installation, and service of commercial HVAC equipment in the HVAC industry. 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 Industrial Refrigeration 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, commercial HVAC systems, air movement & ventilation, advanced electrical, HVACR codes, direct digital controls, EPA and NATE certification preparation, hydronic heating, and HET capstone meet recertification requirements for NATE.

The Light Commercial 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 will give passing students national recognition on an AHRI or North American Technician Excellence (NATE) national registry which goes to heating, ventilation, air conditioning, and refrigeration employers.

Note: Students are required to provide their own basic tools.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework	12	
CMM	Elective (see page 89 for selections)	3
ECO 110	Economics for Business and Industry <i>or</i> Social Science Elective	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I	3
HUM 127	Critical Thinking <i>or</i> Humanities or Fine Arts Elective	3

Required HET Core Coursework	21	
HET 110	Basic Refrigeration Systems	4
HET 111	HVACR Electricity I	4
HET 119	HVACR Electricity II	4
HET 190	EPA Certification Preparation	2
HET 191	HVACR Load Calculation	4
MTH 114	Applied Mathematics I or higher MTH elective (fulfills MTH Gen Ed)	3

Required Light Commercial HVAC Coursework	33	
HET 150	Air Conditioning I Split-Systems.....	4
HET 194	NATE Certification Preparation	2
HET 219	HVACR Electricity III	4
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 273	Direct Digital Controls	5
HET 293	HVAC Codes	3
HET 295	HET Capstone	3

Total Hours for AAS**66**

LIGHT COMMERCIAL HVAC (Certificate) Plan 24RI

The Light Commercial HVAC Certificate program prepares students for specialization and employment as light commercial HVAC equipment technicians. Courses provide exposure to the light commercial HVAC 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. Students are strongly recommended to also complete the HET core certificate.

Note: Students are required to provide their own basic tools.

HET 150	Air Conditioning I Split-Systems.....	4
HET 194	NATE Certification Preparation	2
HET 219	HVACR Electricity III	4
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 273	Direct Digital Controls	5
HET 293	HVAC Codes	3
HET 295	HET Capstone	3

Total Hours for Certificate**33**

PLUMBING AND PIPEFITTING (Certificate) Plan 24RU

Pending Illinois Community College Board Approval
The Plumbing and Pipefitting Certificate program prepares students for employment in plumbing and pipefitting as a plumber's trainee. This mini certificate places a strong emphasis on the layout and installation of various types of plumbing installations.

Note: Students are required to provide their own basic tools.

HET 110	Basic Refrigeration Systems	4
HET 135	Plumbing and Pipefitting I	3
HET 136	Plumbing and Pipefitting II	3
HET 192	HVACR Engineering Tech Practicum	1
HET	Elective	3

Total Hours for Certificate**14**

Associate in Applied Science and Career Certificates

HET Electives

Select three hours from the following courses:

HET 170	Refrigeration I Small Appliances	4
HET 193	Recertification Preparation	0.5
HET 231	Heating II Hydronic Heating Systems	4
HET 273	Direct Digital Controls	5
HET 291	Energy Auditing	4
HET 293	HVAC Codes	3
HET 295	HET Capstone	3
MET 117	Pump Overhaul and Repair	3

RESIDENTIAL HVAC

(Associate in Applied Science) Plan 24RD

The Residential HVAC AAS 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 & 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 AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework	12
CMM Elective (See page 89 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

Required General Education Coursework

HET 110	Basic Refrigeration Systems	4
HET 191	HVACR Load Calculation	4
HET 111	HVACR Electricity I	4
HET 119	HVACR Electricity II	4
HET 190	EPA Certification Preparation	2
MTH 114	Applied Mathematics I or higher MTH elective (fulfills MTH Gen Ed)	3

Required Residential HVAC Coursework.....

HET 130	Heating I Residential Appliances	4
HET 150	Air Conditioning I Split-Systems	4
HET 192	HVACR Engineering Tech Practicum	1
HET 252	A/C III Installation and Service	4
HET 230	Air Movement and Ventilation	4
HET 219	HVACR Electricity III	4
HET 293	HVAC Codes	3
HET 194	NATE Certification Preparation	2
HET 231	Heating II Hydronic Heating Systems	4
HET 295	HET Capstone	3

Total Hours for AAS

66

RESIDENTIAL HVAC

(Certificate) Plan 24RE

Pending Illinois Community College Board Approval

The Residential HVAC Certificate program prepares students for employment as residential HVAC equipment technicians. Courses provide an introduction to the residential HVAC 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 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. Students are strongly recommended to also complete the HET core certificate.

Note: Students are required to provide their own basic tools.

HET 130	Heating I Residential Appliances	4
HET 150	Air Conditioning I Split-Systems	4
HET 192	HVACR Engineering Tech Practicum	1
HET 194	NATE Certification Preparation	2
HET 219	HVACR Electricity III	4
HET 230	Air Movement and Ventilation	4
HET 231	Heating II Hydronic Heating Systems	4
HET 252	A/C III Installation and Service	4
HET 293	HVAC Codes	3
HET 295	HET Capstone	3

Total Hours for Certificate

33

STATIONARY ENGINEER
(Associate in Applied Science) Plan 24RS

Pending Illinois Community College Board Approval

The Stationary Engineering AAS program prepares students for employment as stationary engineers specialization in design, layout, installation, and service of commercial building HVAC equipment and green roof technology. Program coursework also prepares students to sit for the Chicago Stationary Engineer Exam. 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 Stationary Engineer 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. Many HET courses in the program (A/C split-systems, commercial HVAC systems, advanced electrical, EPA and NATE certification preparation, pipefitting, Resnet exam preparation, building insulation, energy auditing, Chicago stationary engineer exam preparation and a HET capstone course) meet re-certification requirements for NATE.

The Stationary Engineer 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 will provide passing students 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 AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework	12
CMM Elective (See page 89 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

Required HET Core Coursework	21
HET 110 Basic Refrigeration Systems	4
HET 111 HVACR Electricity I	4
HET 119 HVACR Electricity II	4
HET 190 EPA Certification Preparation	2
HET 191 HVACR Load Calculation	4
MTH 114 Applied Mathematics I or higher MTH elective (fulfills MTH Gen Ed)	3

Required Stationary Engineer Coursework	33
CMT 115 Carpentry I	3
HET 150 Air Conditioning I Split-Systems	4
HET 135 Plumbing and Pipefitting I	3
HET 192 HVACR Engineering Tech Practicum	1
HET 194 NATE Certification Preparation	2
HET 195 Chicago Stationary Engineer Exam Prep	1
HET 250 A/C II Commercial HVAC Appliances	4
HET 290 Building Insulation	4
HET 291 Energy Auditing	4
HET 292 Resnet Exam Preparation	1
HET 295 HET Capstone	3
HRT 285 Sustainable Landscapes	3

Total Hours for AAS	66
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STATIONARY ENGINEER
(Certificate) Plan 24RT

Pending Illinois Community College Board Approval

The Stationary Engineer Certificate program prepares students for employment as Stationary Engineers in commercial building HVAC. Program coursework also prepares students to sit for the Chicago Stationary Engineer Exam. Courses provide an introduction to the building engineer 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 building 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), the North American Technician Excellence (NATE), or the Residential Energy Services Network's (RESNET®) national registry distributed to heating, air conditioning, ventilation, and refrigeration employers. Students are strongly recommended to also complete the HET core certificate.

Note: Students are required to provide their own basic tools.

Associate in Applied Science and Career Certificates

CMT	115	Carpentry I	3
HET	135	Plumbing and Pipefitting I	3
HET	150	Air Conditioning I Split-Systems.....	4
HET	192	HVACR Engineering Tech Practicum	1
HET	194	NATE Certification Preparation	2
HET	195	Chicago Stationary Engineer Exam Prep.....	1
HET	250	A/C II Commercial HVAC Appliances	4
HET	290	Building Insulation	4
HET	291	Energy Auditing	4
HET	292	Resnet Exam Preparation	1
HET	295	HET Capstone	3
HRT	285	Sustainable Landscapes	3
Total Hours for Certificate			33

HORTICULTURE

**Biological and Health Sciences Division, Room C140,
(847) 543-2042**

The Horticulture curriculum provides a foundation in one of four occupational areas: Horticulture Production, Landscape Design, Landscape Construction and Maintenance, or Natural Areas Management. Course work is intended for persons who are already employed in horticulture as well as those who want to enter the field. Supervised fieldwork or Cooperative Work Experience is provided for students with sophomore status, and is required of those students with no work experience in horticulture.

For students interested in **Sustainable Energy and Design**, please see page 172 for options, or contact the identified department chair for more information.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

HORTICULTURE PRODUCTION (Associate in Applied Science) Plan 21HA

Required General Education Coursework	18
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
ENG 120	Technical Composition I <i>or</i>
ENG 121	English Composition I
	Social Science Electives*
	Humanities or Fine Arts Elective*
	Science or Math Elective
(BIO 120 or MTH 114 recommended)	

Required Horticulture Coursework.....	26
BIO 222	General Botany
HRT 111	Introduction to Horticulture
HRT 114	Introduction to Soils
HRT 115	Tree and Shrub Identification.....
HRT 116	Entomology
HRT 117	Perennials, Annuals and Weeds
HRT 119	Plant Pathology.....
HRT 190	Business Issues in Horticulture
HRT 295	Seminars in Horticulture
	1

Required Horticulture Production Coursework	18
HRT 210	Greenhouse Crop Production and Management.
HRT 211	Plant Propagation
HRT 218	Nursery Production.....
HRT 219	Organic and Sustainable Practices
HRT 290	Horticulture Practicum <i>or</i>
EWE 220	Cooperative Work Experience I
	Horticulture Electives
	3

Total Hours for AAS Degree

LANDSCAPE DESIGN (Associate in Applied Science) Plan 21HB

Required General Education Coursework	18
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
ENG 120	Technical Composition I <i>or</i>
ENG 121	English Composition I
	Social Science Electives*
	Humanities or Fine Arts Elective*
	Science or Math Elective*
(BIO 120 or MTH 114 recommended)	

LANDSCAPE CONSTRUCTION AND MAINTENANCE

(Associate in Applied Science) Plan 21HC

Required General Education Coursework	.....	18
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 <i>or</i>	
ENG 121	English Composition I	3
	Social Science Electives*	6
	Humanities or Fine Arts Elective*	3
	Science or Math Elective*	3
	(BIO 120 or MTH 114 recommended)	

Required Horticulture Coursework.....			26
BIO	222	General Botany	4
HRT	111	Introduction to Horticulture	3
HRT	114	Introduction to Soils	3
HRT	115	Tree and Shrub Identification.....	3
HRT	116	Entomology	3
HRT	117	Perennials, Annuals and Weeds	3
HRT	119	Plant Pathology.....	3
HRT	190	Business Issues in Horticulture	3
HRT	295	Seminars in Horticulture	1

Required Landscape Construction and Maintenance Coursework			18
HRT	150	Landscape Maintenance	3
HRT	155	Small Engine Repair and Maintenance	3
HRT	250	Landscape Construction	3
HRT	255	Urban Forestry Management	3
HRT	290	Horticulture Practicum or	
EWE	220	Cooperative Work Experience I	3
		Horticulture Elective	3

Total Hours for AAS62

NATURAL AREAS MANAGEMENT (Associate in Applied Science) Plan 21HP

Required General Education Coursework	18
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 <i>or</i>	
ENG 121 English Composition I	3
Social Science Electives*	6
Humanities or Fine Arts Elective*	3
Science or Math Elective*	3
(MTH 114 recommended)	

Required Horticulture Coursework.....	26
BIO 222 General Botany	4
HRT 111 Introduction to Horticulture	3
HRT 114 Introduction to Soils	3
HRT 115 Tree and Shrub Identification.....	3
HRT 116 Entomology	3
HRT 117 Perennials, Annuals and Weeds	3
HRT 119 Plant Pathology.....	3
HRT 190 Business Issues in Horticulture	3
HRT 295 Seminars in Horticulture	1

Required Natural Areas Management Coursework .....18			
BIO	120	Environmental Biology	4
BIO	126	Local Flora	2
ESC	126	Geology of Illinois	2
HRT	275	Natural Areas Management	4
HRT	290	Horticulture Practicum or	
EWE	220	Cooperative Work Experience I	3
		Horticulture Elective	3

Total Hours for AAS 62

LANDSCAPE DESIGN

(Certificate) Plan 21HD

HRT	115	Tree and Shrub Identification.....	3
HRT	117	Perennials, Annuals and Weeds	3
HRT	130	Landscape Graphics	3
HRT	230	Landscape Design.....	3
HRT	235	Computer Landscape Design	3
HRT	250	Landscape Construction	3

Total Hours for Certificate18

Associate in Applied Science and Career Certificates

LANDSCAPE MAINTENANCE (Certificate) Plan 21HH

HRT	117	Perennials, Annuals and Weeds	3
HRT	150	Landscape Maintenance	3
HRT	155	Small Engine Repair and Maintenance	3
HRT	190	Business Issues in Horticulture	3
HRT	250	Landscape Construction	3
HRT	255	Urban Forestry Management	3

Total Hours for Certificate18

FLORAL DESIGN (Certificate) Plan 21HI

HRT	111	Introduction to Horticulture	3
HRT	117	Perennials, Annuals and Weeds	3
HRT	174	Basic Floral Design	3
HRT	175	Advanced Floral Design.....	3
HRT	190	Business Issues in Horticulture	3
HRT	210	Greenhouse Crop Production	3

Total Hours for Certificate18

ARBORICULTURE (Certificate) Plan 21HL

HRT	111	Introduction to Horticulture	3
HRT	115	Tree and Shrub Identification.....	3
HRT	116	Entomology	3
HRT	119	Plant Pathology.....	3
HRT	150	Landscape Maintenance	3
HRT	255	Urban Forestry Management	3

Total Hours for Certificate18

NATURAL AREAS MANAGEMENT (Certificate) Plan 21HQ

BIO	120	Environmental Biology	4
BIO	126	Local Flora	2
ESC	126	Geology of Illinois	2
HRT	115	Tree and Shrub Identification.....	3
HRT	190	Business Issues in Horticulture	3
HRT	275	Natural Areas Management	4

Total Hours for Certificate18

For more information on recommended courses or program specific advising, contact faculty member Rory Klick or the Biological and Health Sciences division at (847) 543-2042.

HOSPITALITY AND CULINARY MANAGEMENT (Formerly Food Service Management)

Business Division, Room T102, (847) 543-2041

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 AAS 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 AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework	15
ENG 120	Technical Composition I <i>or</i>
ENG 121	English Composition 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
AOS 122	Business Mathematics <i>or</i>
MTH 114	or higher MTH elective
PSY 122	Psychology in Business and Industry.....
	Humanities or Fine Arts elective

Required Hospitality and Culinary Coursework	46
HCM 110 Introduction to the Hospitality Industry	3
HCM 111 Culinary Principles I.....	5
HCM 112 Culinary Principles II	5
HCM 113 ServSafe: Food Service Sanitation	1
HCM 170 Patissiere I	5
HCM 171 Culinary Principles III	5
HCM 175 Nutrition	3
HCM 185 Garde Manger.....	4
HCM 212 Menu Marketing and Management	3
HCM 213 Purchasing and Inventory Control	3
HCM 214 Hospitality Supervision	3
HCM 271 Hospitality Leadership	3
HCM 273 Controlling Hospitality Costs.....	3
 HCM Electives	 3
HCM 272 Culinary & Hospitality Internship <i>or</i>	
HCM 299 Selected Topics in Hospitality	3
 Total Hours for AAS Degree	 64

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.

HCM 110 Introduction to the Hospitality Industry	3
HCM 111 Culinary Principles I.....	5
HCM 112 Culinary Principles II	5
HCM 113 ServSafe: Food Service Sanitation	1
HCM 214 Hospitality Supervision	3

 Total Hours for Certificate	 17
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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.

HCM 110 Introduction to the Hospitality Industry	3
HCM 111 Culinary Principles I.....	5
HCM 112 Culinary Principles II	5
HCM 113 ServSafe: Food Service Sanitation	1
HCM 170 Patissiere I	5
HCM 171 Culinary Principles III	5
HCM 175 Nutrition	3
HCM 213 Purchasing & Inventory Control	3
HCM 214 Hospitality Supervision	3

 Total Hours for Certificate	 33
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HOSPITALITY SUPERVISOR (Certificate) Plan 22FG

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.

HCM 110 Introduction to the Hospitality Industry	3
HCM 111 Culinary Principles I.....	5
HCM 113 ServSafe: Food Service Sanitation	1
HCM 175 Nutrition	3
HCM 213 Purchasing and Inventory Control	3
HCM 214 Hospitality Supervision	3

 Total Hours for Certificate	 18
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**HOSPITALITY MANAGER
(Certificate) Plan 22FI**

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.

HCM 110	Introduction to the Hospitality Industry	3
HCM 111	Culinary Principles I.....	5
HCM 112	Culinary Principles II	5
HCM 113	ServSafe: Food Service Sanitation.....	1
HCM 175	Nutrition	3
HCM 212	Menu Marketing and Management	3
HCM 213	Purchasing & Inventory Control	3
HCM 214	Hospitality Supervision	3
HCM 271	Hospitality Leadership	3
HCM 273	Controlling Hospitality Costs.....	3
HCM 272	Culinary & Hospitality Internship <i>or</i>	
HCM 299	Selected Topics in Hospitality	3
Total Hours for Certificate		35

**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 to prepare quick breads, yeast breads, pies, pastries, cookies, cakes, custards, plated desserts, frozen desserts, chocolate and confectionary work. Students earn the ServSafe Foodservice Sanitation license as a part of this certificate.

HCM 110	Introduction to the Hospitality Industry	3
HCM 113	ServSafe: Food Service Sanitation.....	1
HCM 170	Patissiere I	5
HCM 172	Patissiere II.....	5
HCM 214	Hospitality Supervision	3

Total Hours for Certificate **17**

For more information on recommended courses or program specific advising, contact the following faculty members or the Business Division at (847) 543-2041:

Mark Dowling Teresa Novinska

HUMAN SERVICES PROGRAM

Social Science Division, Room A244, (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 service 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 the department chair. Human Services courses may transfer to four-year institutions with related programs.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

The Human Services Alcohol, Substance Abuse and Addictive Disorders degree (ASAAD) is accredited by the Illinois Alcohol and other Drug Abuse Certification Agency (IAODAPCA) through the 2010-2011 academic year.

CHILDREN AND ADOLESCENTS
(Associate in Applied Science) Plan 25HB

Required General Education Coursework	15
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices	3
ENG 121 English Composition I	3
MTH 141 Quantitative Literacy <i>or</i>	
PSY 121 Introduction to Psychology	3
Humanities or Fine Arts Elective*	3
Math Elective* (MTH 140 or higher) <i>or</i>	
Science Elective*	3
Required Human Services Coursework	15
HUS 113 Group Processes	3
HUS 118 Professional Helping Skills	3
HUS 121 Health and Nutrition.....	3
HUX 170 Introduction to Substance Abuse	3
SWK 121 Introduction to Social Work	3
Required Children and Adolescents Coursework	30
ECE 223 Child Family, and Community <i>or</i>	
EDU 222 The Exceptional Child	3
HUS 170 Human Service Practicum I	4
HUS 171 Human Service Practicum II	4
PSY 222 Child Growth and Development	3
PSY 226 Adolescent Development	3
SOC 224 Sociology of the Family	3
Children and Adolescents	
Electives (see below)	10
Total Hours for AAS Degree	60

Children and Adolescents Electives

Select 10 credit hours from the list below:

CRJ 121 Introduction to Criminal Justice.....	3
CRJ 229 Juvenile Delinquency	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 210 Principles of Residential Care	3
HUS 213 Mental Retardation	3
HUS 299 Special Topics in Human Services	1-3
HUX 172 Other Addictive Disorders	2
HUX 174 Ethics, Law, Regulations, and Records	2
HUX 176 Advanced Counseling Skills for Addictive Disorders	3
HUX 177 Advanced Group Counseling Skills	3
PSY 223 Abnormal Psychology <i>or</i>	
SOC 223 Deviance	3
SWK 124 Human Sexuality	3

ADULT SERVICES
(Associate in Applied Science) Plan 25HC

Required General Education Coursework	15
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices	3
ENG 121 English Composition I	3
MTH 141 Quantitative Literacy <i>or</i>	
PSY 121 Introduction to Psychology	3
Humanities or Fine Arts Elective*	3
Math Elective* (MTH 140 or higher) <i>or</i>	
Science Elective*	3

Required Human Services Coursework	27
HUS 113 Group Processes	3
HUS 118 Professional Helping Skills	3
HUS 121 Health and Nutrition.....	3
HUX 170 Introduction to Substance Abuse	3
SOC 121 Introduction to Sociology.....	3
SOC 224 Sociology of the Family	3
SWK 121 Introduction to Social Work	3

Select 6 hours from the list below:

HUS 231 Adult Development and Aging.....	3
PSY 222 Child Growth and Development	3
PSY 226 Adolescent Development	3

Required Adult Services Courses.....	22
HUS 170 Human Services Practicum I	4
HUS 171 Human Services Practicum II.....	4
PSY 223 Abnormal Psychology <i>or</i>	
SOC 223 Deviance	3
Electives (see below)	11

Total Hours Required for AAS Degree

Adults Services Electives

Select 11 credit hours from the list below:

CRJ 117 Community – Based Corrections	3
CRJ 121 Introduction to Criminal Justice	3
CRJ 124 Penology and Corrections	3
HUS 114 Human Services Supervision	3
HUS 116 Principles of Foster Care	1
HUS 210 Principles of Residential Care	3
HUS 213 Mental Retardation	3
HUS 299 Special Topics in Human Services	1-3
PRS 111 Survey of Rehabilitation Skills	3
PRS 112 Psychiatric Rehabilitation Skills	3
SWK 124 Human Sexuality	3

Associate in Applied Science and Career Certificates

ALCOHOL, SUBSTANCE ABUSE, AND ADDICTIVE DISORDERS (ASAAD) (Associate in Applied Science) Plan 25HD

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.

Students who enter the Alcohol, Substance Abuse and Addictive Disorders (ASAAD) option 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 one year.

Required General Education Coursework	15
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices	3
ENG 121 English Composition I	3
MTH 141 Quantitative Literacy <i>or</i>	
PSY 121 Introduction to Psychology	3
Humanities or Fine Arts Elective*	3
Math Elective* (MTH 140 or higher) <i>or</i>	
Science Elective*	3

Required Human Services Coursework	27
HUS 113 Group Processes	3
HUS 118 Professional Helping Skills	3
HUS 121 Health and Nutrition.....	3
HUX 170 Introduction to Substance Abuse	3
SOC 121 Introduction to Sociology.....	3
SOC 224 Sociology of the Family	3
SWK 121 Introduction to Social Work	3

Select 6 hours from the following courses:

HUS 231 Adult Development and Aging.....	3
PSY 222 Child Growth and Development	3
PSY 226 Adolescent Development	3

Required Alcohol, Substance Abuse and Addictive Disorders Coursework	24
HUX 171 Assessment and Diagnosis of Alcoholism and Substance Abuse Disorders	3
HUX 173 Special Populations and Addictive Disorders.....	2
HUX 174 Ethics, Law, Regulations, Records and Documentation	2
HUX 175 Pharmacological and Other Medical Terminology	1
HUX 176 Advanced Counseling Skills for Addictive Disorders.....	3
HUX 177 Advanced Group Counseling Skills	3
HUX 271 Human Services ASAAD Practicum I	5
HUX 272 Human Services ASAAD Practicum II	5

Required Alcohol, Substance Abuse and Addictive Disorders Coursework2

Select 2 credit hours from the list below:	
HUX 172 Other Addictive Disorders	2
HUX 178 Assessment and Treatment of Addictive Families	2
HUX 179 Psycho-Social Aspects of HIV	2
HUS 299 Special Topics	1-3

Total Hours for AAS Degree68

ALCOHOL, SUBSTANCE ABUSE, AND ADDICTIVE DISORDERS (ASAAD) (Certificate) Plan 25HG

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 must possess a minimum of an associates degree in Human Services or Behavioral Science from an accredited institution of higher education. Students who do not meet this requirement should complete the AAS in ASAAD, Plan 25HD.

In order to be admitted to this option, students must first meet with the department chair. 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 concurrent with the courses required for the certificate.

Students who enter the Alcohol, Substance Abuse and Addictive Disorders (ASAAD) option 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 one year.

Required Prerequisite Coursework18

HUS 113 Group Processes	3
HUS 118 Professional Helping Skills	3
HUS 121 Health and Nutrition.....	3
SOC 224 Sociology of the Family	3

Select 6 credit hours from the list below:

PSY 222 Child Growth and Development	3
PSY 226 Adolescent Development	3
HUS 231 Adult Development and Aging.....	3

Required Alcohol, Substance Abuse and Addictive Disorders Coursework.....	31
HUX 170 Introduction to Substance Abuse	3
HUX 171 Assessment and Diagnosis of Alcoholism and Substance Abuse Disorders	3
HUX 173 Special Populations and Addictive Disorders.....	2
HUX 174 Ethics, Law, Regulations, Records, and Documentation	2
HUX 175 Pharmacological and Other Medical Terminology	1
HUX 176 Advanced Counseling Skills for Addictive Disorders.....	3
HUX 177 Advanced Group Counseling Skills	3
HUX 271 Human Services ASAAD Practicum I	5
HUX 272 Human Services ASAAD Practicum II	5
Select 4 credit hours from the list below:	
HUX 172 Other Addictive Disorders	2
HUX 178 Assessment and Treatment of Addictive Families	2
HUX 179 Psycho-Social Aspects of HIV	2
HUS 299 Special Topics.....	2
Total Hours for Certificate	31

CORRECTIONAL COUNSELING (Associate in Applied Science) Plan 25HK

Required General Education Coursework	15
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 128 Interviewing Practices	3
ENG 121 English Composition I	3
MTH 141 Quantitative Literacy <i>or</i>	
PSY 121 Introduction to Psychology	3
Humanities or Fine Arts Elective*	3
Math Elective* (MTH 140 or higher) <i>or</i>	
Science Elective*	3
Required Human Services Coursework	18
HUS 113 Group Processes	3
HUS 118 Professional Helping Skills	3
HUS 121 Health and Nutrition.....	3
HUX 170 Introduction to Substance Abuse	3
SOC 121 Introduction to Sociology.....	3
SWK 121 Introduction to Social Work	3
Required Correctional Coursework	27
CRJ 117 Community-Based Corrections	3
CRJ 121 Introduction to Criminal Justice.....	3
CRJ 214 Substance Abuse and Criminal Justice.....	3
HUS 219 Human Service Internship	5
HUS 231 Adult Development and Aging <i>or</i>	
PSY 226 Adolescent Development	3
HUX 177 Advanced Group Counseling Skills.....	3
Correctional Counseling Electives (see below)	7
Total Hours for AAS Degree	60

Correctional Counseling Program Electives

Select 7 credit hours from the list below:	
CRJ 119 Principles of Direct Supervision	3
CRJ 123 Introduction to Criminology.....	3
CRJ 124 Penology and Corrections	3
CRJ 229 Juvenile Delinquency	3
CRJ 221 Criminal Law	3
HUS 114 Human Services Supervision	3
HUS 210 Principles of Residential Care	3
HUX 172 Other Addictive Disorders	2
HUX 179 Psychosocial Aspects of HIV Infections	2
PSC 122 State and Local Politics	3
+ PSY 223 Abnormal Psychology <i>or</i>	
+ SOC 223 Deviance	3
HUS 299 Special Topics in Human Services	1-3
+ Recommended Course (either PSY 223 or SOC 223)	

++ Students pursuing IAODAPCA's Certified Criminal Justice Addictions Professional Credential must take HUX 171, HUX 176 and a CRJ course in addition to earning the AAS in Correctional Counseling. Please note: there may be additional requirements by IAODAPCA to obtain this credential.

CORRECTIONAL COUNSELING (Certificate) Plan 25HJ

Required Correctional Counseling Coursework.....	24-26
CRJ 117 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 Service Internship.....	3-5
HUX 177 Advanced Group Counseling Skills	3
Correctional Counseling Electives (see below)	9

Required Human Services Coursework	9
HUS 113 Group Processes	3
HUS 118 Professional Helping Skills	3
HUX 170 Introduction to Substance Abuse	3

Total Hours for Certificate 33-35

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 Penology and Corrections	3
CRJ 221 Criminal Law	3
CRJ 229 Juvenile Delinquency	3
CRJ 270 Criminal Justice Assessment	3
HUS 114 Human Services Supervision	3
HUS 210 Principles of Residential Care	3
HUS 299 Special Topics in Human Services	1-3
++HUX 171 Assessment/Diagnosis of Alcohol/Substance Abuse Disorders.....	3

Associate in Applied Science and Career Certificates

HUX 172	Other Addictive Disorders	2
++HUX 176	Advanced Counseling Skills for Addictive Disorders.....	3
HUX 179	Psychosocial Aspects of HIV Infections	2
PSC 122	State and Local Politics	3
PSY 223	Abnormal Psychology or	
SOC 223	Deviance	3

++ Students pursuing the Certified Criminal Justice Addictions Professional credential must take HUX 171, HUX 176, and CRJ 270. Note: there may be additional requirements by the IADDAPCA to obtain this credential.

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. The certificate provides the additional study that is often required when there has been a career change.

HUS 113	Group Processes	3
HUS 118	Professional Helping Skills	3
HUS 170	Human Service Practicum I	4
HUS 231	Adult Development & Aging or	
PSY 222	Child Growth & Development or	
PSY 226	Adolescent Development	3
HUX 170	Intro to Substance Abuse	3
PSY 121	Introduction to Psychology	3
SOC 224	Sociology of the Family	3
SWK 121	Introduction to Social Work or	
SWK 124	Human Sexuality	3
	Electives (see list below)	6

Total Hours for Certificate31

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.

TRAUMA, VIOLENCE PREVENTION AND VICTIM SERVICES (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 & Referral, Domestic Violence, Homeless Programs, Sexual Violence programs, Corrections, etc.

Required General Education Coursework		15
CMM 111	Communication Skills or	
CMM 121	Fundamentals of Speech or	
CMM 128	Interviewing Practices	3
ENG 121	English Composition I	3
PSY 121	Introduction to Psychology	3
	Humanities or Fine Arts Elective	3
	Math Elective* (MTH 140 or higher) or	
	Science Elective*	3

Required Human Services Coursework		23
HUS 113	Group Processes	3
HUS 118	Professional Helping Skills	3
HUS 121	Health and Nutrition	3
HUX 170	Intro to Substance Abuse	3
SWK 121	Introduction to Social Work	3
	Electives (see list below)	8

Required Violence Prevention, Trauma, and Victim Services Coursework.....		25
EDM 111	Intro to Emergency Management	3
HUS 132	Trauma, Violence & Prevention	3
HUS 219	Internship	5
HUS 232	Trauma Interventions	3
HUS 236	Crisis Intervention	3
HUX 177	Advanced Group Counseling	3
HUX 174	Ethics, Law, Regulation, and Records	2
HUS 231	Adult Development and Aging or	
PSY 220	Lifespan Development or	
PSY 222	Child Growth & Development or	
PSY 226	Adolescent Development	3

Electives

Select 8 hours from the list below:

CRJ 119	Principles/Direct Supervision	3
CRJ 123	Introduction to Criminology	3
CRJ 124	Penology and Corrections	3
CRJ 229	Juvenile Delinquency	3
HUS 114	Human Services Supervision	3
HUS 210	Principles of Residential Care	3
HUS 299	Special Topics in Human Services	1
HUX 171	Assessment and Diagnosis of Alcohol and Substance Abuse Disorders	3
HUX 172	Other Addictive Disorders	2
HUX 176	Advanced Counsel Skills for Addictive Disorders	3
HUX 179	Psychosocial Aspects of HIV Infections and Chemical Health	2
PSC 122	State and Local Politics	3
PSY 223	Abnormal Psychology or	
SOC 223	Deviance	3
SWK 124	Human Sexuality	3

Total Hours for AAS Degree63

TRAUMA, VIOLENCE PREVENTION AND VICTIM SERVICES (Certificate) Plan 25HM

This program is designed for students who have a Bachelors or Masters degree in a Human Services related field and are interested in gaining specialized 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 enhance their previous education and enable employment in the human services fields such as Substance Abuse, Child Care Resource & Referral, Domestic Violence, Homeless Programs, Sexual Violence programs, Corrections, etc.

Required Prerequisite Coursework

HUS 113	Group Processes	3
HUS 118	Professional Helping Skills	3
HUS 121	Health and Nutrition.....	3
HUX 170	Intro to Substance Abuse	3
PSY 220	Lifespan Development or	
PSY 222	Child Growth and Development or	
PSY 226	Adolescent Development or	
HUS 231	Adult Development and Aging.....	3

Required Violence Prevention, Trauma, and Victim Services Coursework.....22

EDM 111	Intro to Emergency Management.....	3
HUS 132	Trauma, Violence and Prevention	3
HUS 219	Internship	5
HUS 232	Trauma Interventions	3
HUS 236	Crisis Intervention	3
HUX 174	Ethics, Law, Regulation, and Records	2
HUX 177	Advanced Group Counseling	3

Electives8

Select 8 hours from the list below:

CRJ 119	Principles/Direct Supervision.....	3
CRJ 123	Introduction to Criminology.....	3
CRJ 124	Penology and Corrections	3
CRJ 229	Juvenile Delinquency	3
HUS 114	Human Services Supervision	3
HUS 210	Principles of Residential Care	3
HUS 299	Special Topics in Human Services	1-3
HUX 171	Assessment and Diagnosis of Alcohol and Substance Abuse Disorders.....	3
HUX 172	Other Addictive Disorders	2

HUX 176	Advanced Counsel Skills for Addictive Disorders.....	3
HUX 179	Psychosocial Aspects of HIV Infections and Chemical Health.....	2
PSC 122	State and Local Politics	3
PSY 223	Abnormal Psychology or	
SOC 223	Deviance	3
SWK 124	Human Sexuality	3

Total Hours for Certificate30

For more information on recommended courses or program specific advising, contact the following faculty members or the Social Science division at (847) 543-2047:

Mick Cullen

Janet Mason

LASER/PHOTONICS/OPTICS

Engineering, Math and Physical Sciences Division Room T102, (847) 543-2044

This certificate provides career oriented students training to enter the laser/photonics/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.

LASER/PHOTONICS/OPTICS (Certificate) Plan 24LA

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 Certificate16

LIBRARY TECHNICAL ASSISTANT**Communication Arts, Humanities and Fine Arts Division
Room B210, (847) 543-2040**

Library Technical Assistants work at the paraprofessional or pre-professional level in libraries. They are technical support staff members with specific library related skills. The courses provide a broad foundation of knowledge which can apply to technical or public service work in academic, school, public, or special libraries. The Library Technical Assistant degree program provides for a general public services emphasis and four specialty options with a common core of general education and library science courses.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

**PUBLIC SERVICES
(Associate in Applied Science) Plan 23LF**

Required General Education Coursework	15
CMM 111 Communication Skills <i>or</i>	
CMM 121 Fundamentals of Speech <i>or</i>	
CMM 122 Business and Professional Speaking	3
ENG 120 Technical Composition I <i>or</i>	
ENG 121 English Composition I	3
Humanities or Fine Arts Elective*	3
Science or Mathematics Elective*	3
Social Science Elective*	3
Required LTA Coursework.....	39
LTA 121 Introduction to Library Science	3
LTA 210 Library Materials	3
LTA 212 Technology for Libraries	3
LTA 214 Cataloging and Classification.....	3
LTA 230 Library Public Services	3
LTA 232 Reference and Information Services	3
LTA 274 Workplace and Supervisory Skills for the LTA	3
LTA 278 Supervised Field Practicum II	3
Public Services Electives (see next column).....	15
Additional Required Coursework	6
CIT 120 Introduction to Computers	3
DMD 115 Internet Fundamentals	3
Total Hours for AAS Degree	60

LTA Public Services Electives

Select 15 credit hours from the list below:

BUS 115	Elements of Supervision.....	3
CIT 119	Introduction to Office Software	3
CIT 150	Introduction to Local Area Networking	3
CMM 127	Intercultural Communication	3
CMM 128	Interviewing Practices	3
DMD 111	Introduction to Digital Media.....	3
DMD 116	Web Design and Development.....	3
ENG 249	Children's Literature.....	3
LTA 250	Children's Library Services	3
LTA 252	Administration of the School Library Media Center.....	3
LTA 299	Special Topics in Library Science#.....	1-3

See faculty advisor for suggested special topics courses.

CHILDREN'S SERVICES**(Associate in Applied Science) Plan 23LD**

Required General Education Coursework	15
CMM 121 Fundamentals of Speech.....	3
ENG 120 Technical Composition I <i>or</i>	
ENG 121 English Composition I	3
PSY 121 Introduction to Psychology	3
Humanities or Fine Arts Elective*	3
Science or Mathematics Elective*	3
Required LTA Coursework.....	39
LTA 121 Introduction to Library Science	3
LTA 210 Library Materials	3
LTA 212 Technology for Libraries	3
LTA 214 Cataloging and Classification.....	3
LTA 230 Library Public Services	3
LTA 232 Reference and Information Services	3
LTA 274 Workplace and Supervisory Skills for the LTA	3
LTA 278 Supervised Field Practicum II	3
Children's Services Electives (see below)	15
Additional Required Coursework	6
CIT 120 Introduction to Computers	3
DMD 115 Internet Fundamentals	3
Total Hours for AAS Degree	60
LTA Children's Services Electives	
Select 15 hours from the list below:	
ART 125 Art for Elementary Teachers	2
CMM 127 Intercultural Communication	3
ECE 115 Music Activities for Young Children	3
ECE 116 Creative Activities	3
ECE 117 Creative Activities for Infants and Toddlers	3

EDU 223	Technology in the Classroom.....	3
ENG 249	Children's Literature.....	3
LTA 250	Children's Library Services	3
LTA 252	Administration of the School Library Media Center.....	3
LTA 299	Special Topics in Library Science#.....	1-3
PSY 222	Child Growth and Development	3
THE 220	Creative Dramatics for the Classroom Teacher	3

See faculty advisor for suggested special topics courses.

LIBRARY MARKETING AND PUBLIC RELATIONS

(Associate in Applied Science) Plan 23LE

Required General Education Coursework15

CMM 123	Small Group Dynamics	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I	3
	Humanities or Fine Arts Elective*	3
	Science or Mathematics Elective*	3
	Social Science Elective*	3

Required LTA Coursework.....39

LTA 121	Introduction to Library Science	3
LTA 210	Library Materials	3
LTA 212	Technology for Libraries	3
LTA 214	Cataloging and Classification.....	3
LTA 230	Library Public Services	3
LTA 232	Reference and Information Services	3
LTA 274	Workplace and Supervisory Skills for the LTA	3
LTA 278	Supervised Field Practicum II	3
	Library Marketing and PR Electives (see below)	15

Additional Required Coursework6

CIT 120	Introduction to Computers	3
DMD 115	Internet Fundamentals	3

Total Hours for AAS Degree60

LTA Marketing and PR Electives

ART 111	Printing Production.....	3
ART 122	Basic Color and Design	3
ART 222	Introduction to Computer Art.....	3
ART 271	Introduction to Electronic Graphic Publishing	3
CIT 119	Introduction to Office Software	3
DMD 111	Introduction to Digital Media.....	3
DMD 116	Web Design and Development.....	3
ENG 124	Newswriting	3
LTA 299	Special Topics in Library Science#.....	1-3

See faculty advisor for suggested special topics courses.

LIBRARY TECHNOLOGY

(Associate in Applied Science) Plan 23LG

Required General Education Coursework15

CMM 111	Communication Skills <i>or</i>	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 122	Business and Professional Speaking	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I	3
	Humanities or Fine Arts Elective*	3
	Science or Math Elective*	3
	Social Science Elective*	3

Required LTA Coursework.....39

LTA 121	Introduction to Library Science	3
LTA 210	Library Materials	3
LTA 212	Technology for Libraries	3
LTA 214	Cataloging and Classification.....	3
LTA 230	Library Public Services	3
LTA 232	Reference and Information Services	3
LTA 274	Workplace and Supervisory Skills for the LTA	3
LTA 278	Supervised Field Practicum II	3
	Library Technology Electives (see below)	15

Additional Required Coursework6

CIT 120	Introduction to Computers	3
DMD 115	Internet Fundamentals	3

Total Hours for AAS Degree60

LTA Library Technology Electives

Select 15 credit hours from the list below:

ART 222	Introduction to Computer Art.....	3
CIT 111	Comprehensive Spreadsheets	3
CIT 112	Comprehensive Database	3
CIT 119	Introduction to Office Software	3
CIT 150	Introduction to Local Area Networking	3
CIT 170	Internet Programming for Business	3
DMD 111	Introduction to Digital Media.....	3
DMD 116	Web Design and Development	3
LTA 299	Special Topics in Library Science#.....	1-3

See faculty advisor for suggested special topics courses.

HUMAN RESOURCES

(Associate in Applied Science) Plan 23LI

Required General Education Coursework15

CMM 122	Business and Professional Speaking <i>or</i>	
CMM 123	Small Group Dynamics	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I	3
	Humanities or Fine Arts Elective*	3
	Science or Math Elective*	3
	Social Science Elective*	3

See faculty advisor for suggested special topics courses.

Associate in Applied Science and Career Certificates

Required LTA Coursework.....	39
LTA 121 Introduction to Library Science	3
LTA 210 Library Materials	3
LTA 212 Technology for Libraries	3
LTA 214 Cataloging and Classification.....	3
LTA 230 Library Public Services	3
LTA 232 Reference and Information Services	3
LTA 274 Workplace and Supervisory Skills for the LTA	3
LTA 278 Supervised Field Practicum II	3
Human Resources Electives (see below)	15
Additional Required Coursework	6
CIT 120 Introduction to Computers	3
DMD 115 Internet Fundamentals	3
Total Hours for AAS Degree	60

LTA Human Resources Electives

Select 15 credit hours from the list below:

BUS 113 Human Resource Management	3
BUS 115 Elements of Supervision.....	3
CMM 127 Intercultural Communication	3
CMM 128 Interviewing Practices	3
LTA 299 Special Topics in Library Science#	3
PDS 123 Exploring Diversity and Human Relations.....	3
PSY 122 Psychology in Business and Industry.....	3

See faculty advisor for suggested special topics courses.

LIBRARY TECHNICAL ASSISTANT (Certificate) Plan 23LH

LTA 121 Introduction to Library Science	3
LTA 210 Library Materials	3
LTA 212 Technology for Libraries	3
LTA 214 Cataloging and Classification.....	3
LTA 230 Library Public Services	3
LTA 232 Reference and Information Services	3
LTA 274 Workplace and Supervisory Skills for the LTA	3
LTA 276 Supervised Field Practicum I	2
DMD 115 Internet Fundamentals	3
CIT 120 Introduction to Computers	3
LTA Certificate Elective (see below)	3
Total Hours for Certificate	32

LTA Certificate Electives

Select 3 credit hours from the list below:

BUS 115 Elements of Supervision.....	3
CIT 119 Introduction to Office Software	3
CIT 150 Introduction to Local Area Networking	3
CMM 127 Intercultural Communication	3
CMM 128 Interviewing Practices	3
DMD 111 Introduction to Digital Media.....	3
DMD 116 Web Design and Development.....	3
ENG 249 Children's Literature.....	3
LTA 250 Children's Library Services	3
LTA 252 Administration of the School Library Media Center+.....	3
LTA 299 Special Topics in Library Science.....	1-3

See faculty advisor for suggested special topics courses.

+ Effective July 1, 2006, individuals holding an Illinois teacher's certification may qualify for the Library Information Specialist Endorsement by completing 32 credit hours of library coursework. For these students, the elective for the certificate must be LTA 252 Administration of the School Library Media Center.

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

MACHINE TOOL TRADES

Engineering, Math and Physical Sciences Division Room T102, (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 AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

BASIC MACHINING – PHASE I
(Certificate) Plan 24MJ

Required Phase I Coursework	15
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

Required Phase I Coursework (see above)	15
 Required Phase II Coursework	20
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	2
 Total Hours for Certificate	35

**TOOL AND MOLD MAKER – PHASE III
(ADVANCED)**
(Certificate) Plan 24SR

Required Phase I and Phase II Coursework (see above)	35
 Required Phase III Coursework	15
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

MACHINE TOOL TRADES
(Associate in Applied Science) Plan 24MD

Students interested in obtaining an AAS Degree must complete all phases required for the Advanced Certificate, as well as the General Education requirements.

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
Social Sciences Elective*	3
Humanities or Fine Arts Elective*	3

Required Machine Tool Trades Coursework

Phase I	
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

Phase II

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	2

Phase III

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 AAS Degree

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 C140,
(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. Students take ten courses in two semesters of class work and prepare for the National Certification Examination in Therapeutic Massage; success on this exam is a prerequisite for state licensure. Students are registered for the first five courses only by consent of the Massage Therapy Program Coordinator. Visit www.clcillinois.edu/massage for more details about the program.

Associate in Applied Science and Career Certificates

MASSAGE THERAPY (Certificate) Plan 21MS

First Semester	15
MAS 110	Massage Structure and Functions I .....3
MAS 112	Kinesiology and Palpation I .....2
MAS 114	Massage: Business Communication I .....2
MAS 131	Massage Therapy I: Swedish .....4
MAS 132	Massage Therapy II: Integrative .....4
Second Semester	14
MAS 111	Massage Structure and Functions II .....3
MAS 113	Kinesiology and Palpation II .....2
MAS 115	Massage: Business Communication II .....2
MAS 133	Massage Therapy III: Rehabilitative .....3
MAS 134	Massage Therapy IV: Deep Tissue.....4
Total Hours for Certificate	29

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
- Language Proficiency
- Currently certified in Healthcare Provider CPR
- Attend a CLC Massage Therapy information session
- A gpa of 2.0 or higher if student has a CLC gpa

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/massage for details.

Note: 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.

For more information or program specific advising, contact Derek Shouba, Associate Dean of Biological and Health Sciences at (847) 543-2394.

MECHANICAL ENGINEERING TECHNOLOGY

**Engineering, Math and Physical Sciences Division
Room T102, (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 AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

Required General Education Coursework	15
CMM 111	Communication Skills <i>or</i>
CMM 121	Fundamentals of Speech.....3
ECO 221	Principles of Economics I <i>or</i>
ENG 120	Technical Composition I <i>or</i>
ENG 121	English Composition I .....3
MTH 117	Technical Mathematics I** .....3
PSY 121	Introduction to Psychology <i>or</i>
PSY 122	Psychology in Business and Industry.....3
	Humanities or Fine Arts Elective.....3

Required Mechanical Engineering Technology Coursework	38
EGR 121	Engineering Graphics .....3
EGR 216	Statics and Mechanics of Materials for Technology .....5
MET 111	Manufacturing Processes .....3
MET 115	Industrial Pneumatics Hydraulics.....3
MET 131	Introduction to Robotics .....3
MET 212	Mechanisms .....4

MET 214	Mechanical Design and Drafting	3	Additional Required Coursework	17
MET 215	Machine Design	5	CAD 171	Introduction to Inventor <i>or</i>
MET 216	Applied Finite Element Analysis	3	CAD 173	Introduction to SolidWorks <i>or</i>
MET 231	Mechatronics	3	CAD 176	Introduction to Pro Engineer
MTT 111	Machine Shop I <i>or</i>		CAD	Electives (see below)
MTT 112	Machining Principles	3	PHY 121	General Physics I
Additional Required Coursework	15			
CAD 173	Introduction to SolidWorks <i>or</i>			
CAD 176	Introduction to Pro-Engineer	3		
ELC 171	Programmable Logic Controllers	3		
HET 111	HVACR Electricity I <i>or</i>			
EET 170	DC Circuit Fundamentals <i>and</i>			
EET 174	AC Fundamentals	4		
PHY 121	General Physics I	5		
Total Hours for AAS Degree	68			

** 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 - CAD (Associate in Applied Science) Plan 24MQ

Required General Education Coursework	15
CMM 111	Communication Skills <i>or</i>
CMM 121	Fundamentals of Speech.....
ECO 221	Principles of Economics I <i>or</i>
PSY 121	Introduction to Psychology <i>or</i>
PSY 122	Psychology in Business and Industry.....
ENG 120	Technical Composition I <i>or</i>
ENG 121	English Composition I
MTH 117	Technical Mathematics I
	Humanities or Fine Arts Elective*
Required Business Coursework	12
BUS 113	Human Resource Management
BUS 115	Elements of Supervision.....
BUS 215	Operations Management.....
BUS 121	Introduction to Business.....
Required Mechanical Engineering Tech Coursework	26
EGR 121	Engineering Graphics
EGR 216	Statics and Mechanics of Materials for Technology
MET 111	Manufacturing Processes
MET 212	Mechanisms
MET 214	Mechanical Design and Drafting
MET 215	Machine Design
MTT 111	Machine Shop I <i>or</i>
MTT 112	Machining Principles

Additional Required Coursework	17
CAD 171	Introduction to Inventor <i>or</i>
CAD 173	Introduction to SolidWorks <i>or</i>
CAD 176	Introduction to Pro Engineer
CAD	Electives (see below)
PHY 121	General Physics I

Total Hours for AAS Degree

CAD Electives	
CAD 176	Introduction to Pro-Engineer
CAD 177	Site Planning and Drafting
CAD 211	Mechanical Detailing
CAD 214	Introduction to Revit
CAD 217	AutoCAD II
CAD 273	Advanced CAD Specialization

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

MET II: NUTS AND BOLTS (Certificate) Plan 24ML

CAD 173	Introduction to SolidWorks <i>or</i>
CAD 176	Introduction to Pro-Engineer
CNC 111	Geometric Dimensioning and Tolerancing....
MET 214	Mechanical Design and Drafting

Total Hours for Certificate

MET III: MECHATRONICS (Certificate) Plan 24MM

MET 115	Industrial Pneumatics Hydraulics.....	3
MET 131	Introduction to Robotics.....	3
MET 231	Mechatronics	3

Total Hours for Certificate

Associate in Applied Science and Career Certificates

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 216	Statics & Mech of Mat for Tech.....	5
	Total Hours for Certificate	17

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 Hydraulics.....	3
MET 116	Machine Components and Repair	3
MTT 110	Machine Trades Blueprint Read.....	3
MTT 111	Machine Shop I	3
WLD 170	General Welding.....	2
	Total Hours for Certificate	17

MECHANICAL SERVICE TECHNICIAN II (Certificate) Plan 24MP

EET 115	Electronic Laboratory Techniques	2
EET 170	DC Circuit Fundamentals and	
EET 174	AC Fundamentals or	
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 or	
WLD 172	Shielded Metal Arc Welding or	
WLD 175	Gas Metal Arc Welding or	
WLD 178	Gas Tungsten Arc Welding	3
	Total Hours for Certificate	18

For more information on recommended courses or program specific advising, contact faculty member Margie Porter or the Engineering, Math and Physical Science division at (847) 543-2042.

MEDICAL ASSISTING

**Biological and Health Sciences Division, Room C140,
(847) 543-2042**

The Medical Assisting Program prepares 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.caahp.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation
of Allied Health Education Programs
1361 Park Street, Clearwater, FL 33756
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.

Admission to the Program

Interested students may take BIO 111, HIT 111, HIT 119, PBT 110 and PBT 115 prior to being admitted to the program. However, the number of students that can be admitted to MOA 111, 112, 115, 211, and 212 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 (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 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. The costs are borne by the student.

1. Attend a Medical Assisting Information Session. For times and dates of the information sessions, please see the web site at www.clcillinois.edu/info/health or call the Biological and Health Sciences division office at (847) 543-2042.
2. Submit the following records to the Admission and Records Office (All official transcripts must be sent directly to the Admission and Records Office directly from the appropriate institution):
 - a. Application for admission to the College.
 - b. Official transcript/test results:
 - i. Transcript from the last high school you attended. Date of graduation must appear on the transcript. If student did not or will not graduate from high school, official GED test results must be submitted;
3. Minimum Selection Criteria: Official transcripts and records must show that all of the following criteria is satisfied:
 - a. High School graduate or equivalent
 - b. Language proficiency and basic algebra readiness
 - c. Cumulative GPA of 2.0 or above for any credit courses completed at CLC
 - d. Completion of the NLN Entrance Test.

Note: Applicants may take the NLN test only twice per screening year. Scores for the NLN test will only be accepted if the test dates are at least six months apart. If tests are not

taken within the scheduled guidelines, only the first score will be considered for screening. Test scores taken more than 3 years prior to the screening deadline will not be considered.

Please contact the Testing Center at (847) 543-2076 for test dates and times.

Screening Deadlines:

The first Wednesday in October for students entering in the spring semester.

The first Wednesday in February for students entering in the fall semester.

Students should seek the advice of the MOA faculty for course scheduling every semester.

Students must earn a minimum grade of "C" in all MOA, HIT, PBT, and BIO courses listed below to continue in and graduate from the program. In addition, students must maintain a CLC GPA of 2.0 or higher.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

**MEDICAL ASSISTING
(Associate in Applied Science) Plan 21MD**

Required General Education Coursework			16-20
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
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 below)	6
PBT	110	Introduction to Medical Lab Technology.....	2
PBT	115	Phlebotomy Techniques	2

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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 AAS Degree	60-64

Medical Assisting Electives

AOS 119 Records Management	2
AOS 214 Administrative Office Procedures	3
BUS 115 Elements of Supervision.....	3
HIT 112 Health Care Delivery Systems	2
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
PED 228 First Aid/CPR	2
PSY 220 Lifespan Development	3

MEDICAL ASSISTING (Certificate) Plan 21MA

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 <i>and</i>	
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 & 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
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HEALTHCARE OFFICE ASSISTANT (Certificate) Plan 21ME

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 will be expected to be able to use a computer in this class.

HIT 111 Medical Terminology	3
MOA 112 Basic Medical Office and Billing Procedures	4

Total Hours Required for Certificate	7
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Technical Standards

Applicants to 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 admission, 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

**Biological and Health Sciences Division, Room C140,
(847) 543-2042**

MEDICAL IMAGING (Associate in Applied Science) Plan 21MI

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.

To complete an AAS, students must meet the General Requirements on page 88.

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.

The Medical Imaging program sets forth the following goals:

1. Provide graduates with entry-level knowledge and skills to function as competent radiographers.
2. Produce graduates who will provide an optimal level of patient care.
3. Maintain program effectiveness.

Interested students may take MIM110 prior to being admitted to the program. However, 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 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 their 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, you must:

1. Attend a MIM information session. Sessions are scheduled for the first Monday of each month (except January, June and August) at 2:00 p.m. Attendance date must be no more than two years prior to the screening deadline of the year for which you are applying. For additional information and session location, please call (847) 543-2880.
2. Submit the following records to the Admission and Records Office:
 - a. Application for admission to the college.
 - b. Official transcript/test results (sent to the Admission and Records Office directly from the appropriate institution):
 - i. Student record from the last high school attended. Date of graduation must appear on the transcript. If you did not or will not graduate from high school, submit official GED test results.

OR

- ii. College or university record (must be regionally accredited) documenting completion of an Associate Degree or Bachelor's Degree. The transcript must indicate degree awarded and date of conferral.
- c. Official transcripts (sent directly to CLC from appropriate institution) from any previous regionally accredited college(s) showing coursework relevant to the MIM selection criteria.
- d. MIM request for screening.
3. Minimum selection criteria. Official transcripts and records must show that students satisfy all of the following criteria:
 - a. high school graduate or the equivalent, or high school senior in last term,
 - b. language proficiency and basic algebra readiness.
 - c. cumulative GPA of 2.0 or above for any credit courses completed at CLC,
 - d. credit for two years of high school algebra (remedial or modified algebra will not count) with a grade of "C" or better,

OR completion of MTH 108 at CLC with a grade of "C" or better,

OR an equivalent course from another accredited college with a grade of "C" or better,

OR a score on the CLC Math Placement Test that indicates proficiency in MTH 108,

Associate in Applied Science and Career Certificates

- e. credit for BIO 121, BIO 123 or BIO 161 at CLC with a grade of "C" or better,
OR an equivalent course from another accredited college with a grade of "C" or better,
- f. credit for one year of high school physics or chemistry with a grade of "C" or better; OR completion of CHM 120 or CHM 121 or PHY 121 at CLC with a grade of "C" or better,
OR an equivalent course from another accredited college with a grade of "C" or better,
- g. eighteen (18) years of age by mid-term of the fall semester following the screening deadline,
- h. completion of the National League for Nursing Pre-Admission Entrance Exam (NLN).

Note: Applicants may take the NLN test only twice per screening year. Scores for the NLN test will only be accepted if the test dates are at least six months apart. If tests are not taken within the scheduled guidelines, only the first score will be considered for screening. Test scores taken more than three years prior to the screening deadlines will not be considered. Please contact the Testing Center at (847) 543-2076 for test dates and times.

- 4. Meet minimum technical performance standards as defined for the profession.

Technical Performance Standards

Please read the following statements that describe the performance standards relative to Medical Imaging.

All interested students must meet the following performance standards:

- transport, move, lift or transfer patients from a wheelchair or litter to an x-ray table or to a patient's bed
- move, adjust and manipulate a variety of x-ray equipment in order to properly align equipment with respect to the patient and image receptor according to established procedures and standards of speed and accuracy (to include mobile equipment)
- physically place patients in proper positions for x-ray examinations according to established procedures and standards of speed and accuracy
- handle stressful situations related to technical, procedural or patient-care situations
- communicate effectively in order to explain and direct patients as it pertains to their radiologic examinations
- provide physical and emotional support to patients during radiographic procedures
- physically respond to situations requiring emergency care of patients until more qualified help can arrive
- visually review and evaluate radiographic images to identify shades of gray, proper patient positions, proper exposure factors, and other appropriate technical qualities

The screening deadline is the first Wednesday in March.

Students must earn a minimum grade of "C" in each Medical Imaging course to continue in and graduate from the program.

Summer Session One	4
+ BIO 244 Anatomy and Physiology I	4
Fall Semester One	16
+ 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
+ If BIO 124 has been taken, BIO 244 and BIO 245 are not needed.	
Spring Semester Two	14
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
Summer Session Two	4
MIM 115 Clinical Practice II	3
MIM 116 Advanced Radiographic Procedures I	1
Fall Semester Two	14
MIM 210 Technical Aspects of Patient Care	2
MIM 211 Imaging Equipment	6
MIM 212 Clinical Practice III	3
CMM 121 Fundamentals of Speech or	
CMM 123 Dynamics of Small Group Discussion or	
CMM 128 Interviewing Practices	3
Spring Semester Two	17
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
Summer Session Three	3
MIM 271 Clinical Practice V	3
Total Hours for AAS Degree	72

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 female students will be able to understand the possible biological risks of ionizing radiation to the embryo and fetus.

Female students shall read the United States Nuclear Regulatory Commission (NRC) guide #8.13 on possible biological risks to the fetus and embryo and sign an acknowledgement form stating that they understand these risks. NRC guide #8.13 and the acknowledgement form are found in the appendices of the MIM handbook. The signed forms will be placed in the female student's CLC files.

1. Students may inform the program director and the radiation safety officer should a pregnancy occur during the educational period. The pregnancy then becomes declared. Student may rescind pregnancy declaration at any time.
2. 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 program director for discussion and documentation of pregnancy options.
3. The student will decide and the program director document one of the following options:
 - a. 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.
 - b. The student may continue in the program upon the written recommendation of the student's obstetrician or prenatal agency which has the student under its care. In this case, two badges 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 (1). All course objectives and rotations shall be equivalent to any and all students enrolled in this particular course. Adherence to policies 1-4 should eliminate almost all fetal exposure. Other counseling on radiation protection procedures shall be done as needed.
 - c. The student may terminate the program. The college medical imaging program will counsel students, but has no responsibility for the decisions made by students regarding educational choices if they become pregnant during the educational period.

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

MAGNETIC RESONANCE IMAGING (Certificate) Plan 21MR

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.

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.

Fall Semester (odd years)	.....8
MIM 251	MRI Physics and Instrumentation .....3
MIM 253	MRI Procedures .....2
MIM 272	MRI Practicum+ .....3

Spring Semester	.....7
MIM 255	MRI Sectional Anatomy and Pathology.....4
MIM 272	MRI Practicum+3

Total Hours for Certificate15
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+ 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.

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.

To be considered for admission to the Magnetic Resonance Imaging or the Computed Tomography Program, students must:

1. Submit the following records to the Admission and Records Office:
 - a. Application for admission to the college.
 - b. MRI or CT request for screening.
 - c. Copy of current certification of your imaging field.
 - d. Official copy of your certification scores sent directly to CLC from the certifying agency.
 - e. Official transcripts of your related imaging field sent directly to CLC from the institution.
 - f. If available, documentation of years of experience in a related imaging field.
2. Meet minimum technical performance standards as defined for the profession.

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 Office of Admission and Records by the screening deadlines.

Associate in Applied Science and Career Certificates

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 Office of Admission and Records 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.

COMPUTED TOMOGRAPHY (Certificate) Plan 21MT

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.

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.

Note: The lecture portion of the courses is taught online.

Fall Semester (even years)7

MIM 252	CT Physics, Instrumentation, and Procedures I	3
MIM 256	CT Sectional Anatomy and Pathology I.....	3
MIM 273	CT Practicum I+	1

Spring Semester8

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 Certificate15

- + 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.

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.

NANOSCIENCE TECHNOLOGY

**Engineering, Math and Physical Sciences Division
Room T102, (847) 543-2044**

NANOSCIENCE TECHNOLOGY (Associate in Applied Science, Harper College in Palatine, IL) Plan 24NN

Through a partnership with Harper College, CLC students are able to complete an Associate in Applied Science degree in Nanoscience Technology. The Nanoscience Technology program prepares students to become skilled technicians in this cutting-edge, emerging field. Nanotechnology is the science of manipulating atoms and molecules at the nanometer scale (1-100 nanometers). Graduates of this 64-66 credit hour program will be prepared to work as technicians and manufacturing and production workers within industries using nanoscience and microscience technologies, including areas of research and development, production, manufacturing, and sales.

Forty-three credits of the degree are taken at the College of Lake County, and 21-23 credits are taken at Harper College in Palatine. The degree is granted by Harper College upon successful completion of all program requirements. Students interested in participating in this partnership program should submit an application for admission to both the College of Lake County and Harper College.

Required CLC Coursework (completed at CLC)	43	
BIO 123	Principles of Biology	4
+ CHM 121	General Chemistry I	5
CMM 121	Fundamentals of Speech	3
+ ENG 120	Technical Composition I	3
MTH 144	Precalculus	5
MTH 222	Elementary Statistics	4
PHY 121	General Physics I	5
PHY 122	General Physics II	5
NAN 121	Fundamentals of Nanoscience I	3
NAN 122	Fundamentals of Nanoscience II	3
++	Humanities or Social Science elective	3

Required Harper College Coursework (completed at Harper College).....		21-23
NAN 211	Nanoelectronics	3
NAN 221	Nanobiotechnology.....	3
NAN 231	Nanomaterials.....	3
NAN 241	Nanoscience Manufacturing.....	3
NAN 295	Independent Research or +++ Approved Elective	3-5
NAN 299	Nanoscience Internship	6

Total Hours for AAS Degree (Granted by Harper College)	64-66
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- + CHM 120 Chemical Concepts may be substituted. See Harper College Program Coordinator.
- + ENG 121 English Composition may be substituted. See Harper College Program Coordinator.
- ++ Course must meet Harper College's world cultures/diversity requirement
- +++ A Harper College course from BIO, CHM, EGR, or ELT may be substituted with the consent of Harper College Program Coordinator.

NURSING

**Biological and Health Sciences Division, Room C140,
(847) 543-2043**
www.clcillinois.edu/credit_programs/nur.asp

NURSING (Associate in Applied Science) Plan 21NC

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 National League for Nursing Accrediting Commission, 3343 Peachtree Rd., NE, Suite 500, Atlanta, GA 30326, (404) 975-5000, www.nlnac.org. It is approved by the State of Illinois Department of Financial and Professional Regulation, 320 West Washington Street, Springfield, IL 62786, 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 that can be admitted to the first course in the sequence (NUR 132 and 133) 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 screen into the Nursing Program:

To be considered for admission to the Registered Nursing Program, students must:

- 1) Attend one Nursing Information Meeting within two years of the time of screening: Meetings are scheduled for the first Tuesday of each month. Meetings are scheduled at 10:00 a.m. during odd months and 5:30 p.m. during even months. Please visit the CLC nursing Web page to confirm specific date and location.
 - 2) Submit the following records to the Admission and Records Office:
 - a) Application for admission to the college.
 - b) High school graduation evidenced by any of the following (documentation must be sent directly to the Office of Admission and Records by the appropriate institution):
 - i) High school transcript with graduation date
 - ii) GED test scores
 - iii) Associate or higher degree from a regionally accredited college or university
 - iv) High school or college transcript evaluated by ECE (or other NACES approved agency)
 - c) Current ADN request for screening.
 - 3) Minimum Selection Criteria: Official transcripts and records must show satisfaction of all of the following criteria:
 - a) High School graduate or the equivalent
 - b) Language proficiency and basic algebra readiness
 - c) Cumulative gpa of 2.0 or above for any credit courses completed at CLC
 - d) A grade of "C" or better for two semesters (1 year) of high school chemistry with a lab, OR a grade of "C" or better in CHM 120 or CHM 121 at CLC or an approved equivalent course from another accredited college*
 - e) A grade of "C" or better in BIO 123 (formerly BIO 121) or BIO 161 at CLC or an equivalent course from another accredited college. If an applicant has completed BIO 246 and BIO 244+ with grades of "C" or better, or equivalent coursework from another accredited college with a grades of "C" or better; BIO 121, BIO 123 or BIO 161 will not be required.
 - f) A grade of "C" or better in BIO 244+ or an approved equivalent course from another accredited college.
- * Please note that MTH 102 or equivalent is a prerequisite for BIO 123 and CHM 120. MTH 108 is a prerequisite for CHM 121.
+ If BIO 124 has been taken, BIO 244 and BIO 245 are not needed. **BIO 124 will be accepted for screening through 2014.**

Associate in Applied Science and Career Certificates

- g) Completion of the National League for Nursing Pre-Admission Entrance Examination-RN with a minimum composite percentile score at or above 50 in each test component (verbal ability, mathematics and science) AND a composite percentile score at or above the 60th percentile.
- h) Certified Nurse Assistant (CNA) on the Illinois Registry

Note: Applicants may take the NLN Pre-RN exam only twice per screening year. Scores for the NLN test will only be accepted if the test dates are at least six months apart. If tests are not taken within the scheduled guidelines, only the first score will be considered for screening.

Current NLN policy states that the results of the Pre-RN examination are valid for only a period of three years. Scores used for screening into the nursing program will be valid for only three years prior to a screening deadline. Scores older than three years will not be accepted for screening.

Screening Deadlines: The first Wednesday in January and the first Wednesday in September.

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. 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 their seat in the program.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met. For completion of the AAS 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 132 Pharmacology for Nurses	1
NUR 133 Foundational Concepts of Nursing Practice	7
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 <i>or</i>	
ANT 228 Cross-Cultural Relationships <i>or</i>	
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 <i>or</i>	
CMM 123 Dynamics of Small Group Discussion <i>or</i>	
CMM 128 Interviewing Practices	3
NUR 234 Complex Medical, Surgical and Leadership Nursing	9
General Elective	3

Total Hours for AAS Degree **64**

If BIO 124 has been taken, BIO 244 and BIO 245 are not needed

^ Courses used to fulfill the nursing program screening requirements may not be used as a general elective.

For more information on recommended courses or program specific advising, contact the following faculty members or Dr. Deb Jezuit, Director of Nursing, at (847) 543-2043:

Mary Buckner	Lucille Coleman	Nikki Hagen
Willa Harrison	Barbara Hunt	Deb Krachtus
Dunia Iordan	Cindy MacDonald	Carmella Mikol
Amy Morton-Miller	Janet Racina	Mary Scheffler
Peggy Welch		

CERTIFIED NURSE ASSISTING (Certificate) Plan 21NB

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. Students must satisfy the state required theory and clinical hours of attendance. **Students who fail to attend the first day of class 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. 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. Please consult the CLC nursing web page for additional information regarding the background check at www.clcillinois.edu/credit/programs/nur.asp.

Upon successful completion of this program, students are eligible to take the state mandated written competency examination for Nurse Assistant Certification.

Prerequisites

Students must be at least 16 years of age and have met **one** of the following prerequisites:

- Language proficiency
- Earned High school diploma or GED
- Passed the Adult Education reading test
- Passed ENG 108 or ENG 109
- Passed ENG 121

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 or the Nursing Education office at (847) 543-2043.

PARALEGAL STUDIES

Business Division, Room T102, (847) 543-2041

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.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

First Semester	.....	15
CIT 119	Introduction to Office Software	3
ENG 121	English Composition I	3
PHI 122	Logic <i>or</i>	
PHI 125	Introduction to Ethics	3
PLS 110	Introduction to Paralegal Studies	3
PSC 121	American National Politics	3
Second Semester	.....	12
CMM 128	Interviewing Practices	3
ENG 126	Advanced Composition <i>or</i>	
ENG 266	Professional Communication	3
PLS 112	Legal Research and Writing	3
PLS 210	Tort Law+	3
Third Semester	.....	12
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
Fourth Semester	.....	12
MTH 114	Applied Mathematics I <i>or</i>	
MTH	Elective (114 or higher)	3
PLS 118	Real Property Law+	3
PLS	Electives	6
Fifth Semester	.....	12
PLS	Electives	12
Total Hours for AAS Degree	.....	63
Paralegal Studies Electives		
Select 21 hours from the list below:		
BUS 221	Business Law I	3
CIT 155	Introduction to Computer Forensics	3
PLS 111	Drafting Legal Documents	3
PLS 212	Business Law II/Corporate and Securities 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

Associate in Applied Science and Career Certificates

PLS	250	Internship in Paralegal Studies++	3
PLS	299	Topics in Paralegal Studies	1-6

Consult the schedule for semesters and times of PLS course offerings.

- + PLS 116, PLS 118, PLS 210 may be taken in any order.
- ++ PLS 250 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 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.

PLS	110	Introduction to Paralegal Studies	3
PLS	112	Legal Research and Writing I.....	3
PLS	114	Litigation	3
		Electives+	12

Total Hours for Certificate21

Paralegal Studies Certificate Electives

x Select 12+ hours from the list below:

BUS	221	Business Law I	3
CIT	155	Introduction to Computer Forensics.....	3
PLS	111	Drafting Legal Documents	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	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	250	Internship in Paralegal Studies.....	3
PLS	299	Topics in Paralegal Studies	1-6

- x Nine hours must have the PLS designation, and only one non-PLS course may apply towards the certificate.

NOTE: To earn this certificate, students must have completed one of the following degrees - Bachelor's 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 who have earned an AAS degree must demonstrate that their general education courses meet the requirements of the American Bar Association (ABA). The ABA requires that students who hold an AAS degree and wish to complete a Paralegal Studies certificate program have a minimum of 18 semester credit hours in general education courses in a minimum of three disciplines. These disciplines are Social and Behavioral Sciences, Natural Science, English Composition and Literature, Foreign Language, Mathematics, Humanities, and Fine Arts. If you have an AAS degree and do not have courses from at least three disciplines as indicated, you will need to take those that you do not have in addition to the 21 credit hours for the certificate.

A screening form must be submitted to the Office of Admissions and Records. To download a screening form for the Paralegal certificate program go to [http://clcpages.clcillinois.edu/depts/adr/Paralegal Screening Form.pdf](http://clcpages.clcillinois.edu/depts/adr/Paralegal%20Screening%20Form.pdf).

For more information on recommended courses or program specific advising, contact the following faculty members or the Business Division at (847) 543-2041:

Leslie Klocek Gayle Miller

PHLEBOTOMY TECHNICIAN **(Formerly Medical Laboratory Technician)**

**Biological and Health Sciences Division, Room C140,
(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 approved by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS): 5600 N. River Road, Suite 720, Rosemont, IL 60018-5119, (773) 714-8880, <http://www.nacls.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.

Academic Program Entrance Requirements

- Demonstrate language proficiency 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

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 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 Certificate6

+ 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.

REFRIGERATION AND AIR CONDITIONING

See Heating and Air Conditioning Engineering Technology on page 134 .

SURGICAL TECHNOLOGY

**Biological and Health Sciences Division, Room C140,
(847) 543-2042**

Surgical technologists are allied health professionals who are an integral part to the surgical team. They provide intraoperative services under the direct supervision of surgeons or registered nurses. They assist in the decontamination and set up of the operating rooms for each procedure, organize necessary surgical and sterile supplies and equipment, and maintain the quality, safety, and efficiency of the sterile field throughout the surgery.

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, checking charts, and helping the surgical team with sterile gowns and gloves.

During the surgery, technologists must anticipate the needs of the surgeon by watching and understanding the steps and progression of the surgical procedure. They are accountable for care of the surgical instrumentation and equipment before, during, and at the end of surgical cases.

To complete an AAS, in addition to completion of the certificate program, students must complete the required general education courses. All course prerequisites must be met. Graduates of the program are qualified to take the Certified Surgical Technologist (CST) Examination given by the National Board of Surgical Technology and Surgical Assisting (NBSTA).

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.

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.

Associate in Applied Science and Career Certificates

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, medication checking, assist during surgical procedures, and for documentation.
- 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 4 to 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 session; 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.

To be considered for admission to the Surgical Technology program, students must:

1. Attend a Surgical Technology Information Meeting. Attendance date must be no more than two years prior to the screening deadline of the year for which you are applying.
2. Submit the following records to the Admission and Records Office:
 - a. Application for admission to the college.
 - b. Official transcript/test results (sent to the Admission and Records Office directly from the appropriate institution):
 - i) Your record from the last high school you attended. Your date of graduation must appear on the transcript. If you did not or will not graduate from high school, you must submit your official GED test results.
 - ii. Your college or university record (must be regionally accredited) documenting completion of an Associate's Degree or Bachelor's Degree. The transcript must indicate which degree you were awarded and the date.
 - c. Official transcripts from any previous college(s) (must be regionally accredited) sent directly to CLC from the college(s).
 - d. Current SRG request for screening.
3. Minimum Selection Criteria: Official transcripts and records must show satisfaction of all of the following criteria:
 - a. High School graduate or the equivalent
 - b. Language proficiency and basic algebra readiness
 - c. Completion of the National League for Nursing Pre-Admission Entrance Exam (NLN)
 - d. Attend a surgical technology information session

Note: Applicants may take the NLN test only twice per screening year. Scores for the NLN test will only be accepted if the test dates are at least six months apart. If tests are not taken within the scheduled guidelines, only the first score will be considered for screening. Test scores taken more than three years prior to the screening deadlines will not be considered. Please contact the Testing Center at (847) 543-2076 for test dates and times.

Screening Deadline: The deadline is the first Wednesday in March.

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 Office of Admission and Records by the screening deadlines.

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.

**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 Certificate43-49

++Students intending to pursue the AAS degree should select BIO 246 Microbiology because *this course* is required for the AAS degree. All prerequisites must be met.

Students may wish to earn an Associate in Applied Science in Surgical Technology, in addition to the certificate. The degree 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 Surgical Technologist National Certifying Exam given by the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

The requirements below include completion of the Surgical Technology Certificate (Plan 21SD), additional coursework, and the General Education Requirements.

To complete an AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

**SURGICAL TECHNOLOGY
(Associate in Applied Science) Plan 21SA**

Required General Education Coursework	16
BIO 123	Principals of Biology
CMM 123	Dynamics of Small Group Discussion <i>or</i>
CMM 128	Interviewing Practices
ENG 120	Technical Composition I <i>or</i>
ENG 121	English Composition I
HUM 127	Critical Thinking
PSY 121	Introduction to Psychology

Required Surgical Technology Certificate	37
SRG 110	Introduction to Surgical Technology
SRG 111	Principles of Practice and Introduction to Surgical Procedures.....
SRG 112	Surgical Procedures I.....
SRG 113	Surgical Procedures II
SRG 114	Surgical Procedures III.....
SRG 115	Surgical Technology Internship
SRG 117	Surgical Pharmacology
SRG 118	Advanced Surgical Procedures.....

Additional Required Coursework.....	11-15
BIO 111	Human Form and Function <i>or</i>
BIO 244	Anatomy and Physiology I <i>and</i>
BIO 245	Anatomy and Physiology II
BIO 246	Microbiology
HIT 111	Medical Terminology

Total Hours for AAS Degree64-68

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.

SUSTAINABLE PROGRAMS

Engineering, Math and Physical Sciences Division Room T102, (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.

For more information and resources on current sustainability efforts visit the CLC Sustainability Center, B226, or contact:
Dara Reiff, Sustainability Coordinator
dreiff@clcillinois.edu
(847) 543-2643
Office B226

SUSTAINABLE ENERGY AND DESIGN (Certificate) Plan 24BB

The Sustainable Design and Construction certificate is an interdisciplinary program that incorporates coursework in Architectural design, Horticulture, Construction Management, HVAC and Electronics/Alternative energy. Each course includes learning outcomes for green and sustainable design and/or construction within that course's discipline. This certificate is intended as a post-associate or post-bachelor degree supplement to enhance a professional's working knowledge in green and sustainable design and construction. The certificate culminates in a course which covers the LEED certification program.

ARC	219	Introduction to Environmental Design	3
CMT	217	Green Construction and Project Rating System	3
EET	130	Introduction to Renewable Energy Sources	4
HRT	285	Sustainable Landscapes	3
HET	294	Green Building/Energy Sustainability	3

Total Hours for Certificate16

For more information about this program, please contact Rob Twardock, Department Chair and Instructor, (847) 543-2903.

ALTERNATIVE ENERGY TECHNOLOGIES (Certificate) Plan 24EN

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 Certificate25

For more information about this program, please contact Fred Scheu, Department Chair and Instructor, (847) 543-2484.

TECHNICAL COMMUNICATION

Communication Arts, Humanities and Fine Arts Division Room B210, (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 AAS, students must meet the General Requirements on page 88. In addition, students should select General Education electives (*) from those listed on page 89. All course prerequisites must be met.

TECHNICAL COMMUNICATION (Associate in Applied Science) Plan 23TA

Required General Education Coursework	15
CMM 121	Fundamentals of Speech <i>or</i>
CMM 128	Interviewing Practices
ENG 121	English Composition I
HUM 127	Critical Thinking <i>or</i>
PHI 122	Logic <i>or</i>
	Humanities or Fine Arts Elective*

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 (written)	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		14
Choose technical specialty electives from fields such as advertising, data processing, electronics, engineering, publicity or public relations, sales management, sales promotion, or software development.		

Total Hours AAS Degree		60-64
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Technical Specialty Electives

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, 274, 277
- PLS 110, 112, 212

Students interested in careers in advertising, sales management, sales promotion, publicity or public relations should select these courses.

- BUS 121 Introduction to Business
- BUS 122 Principles of Marketing
- BUS 212 Business to Business Marketing
- BUS 213 Principles of Professional Selling
- BUS 221 Business Law

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 AAS 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.

TECHNICAL COMMUNICATION (Certificate) Plan 23TG

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

PROFESSIONAL TECHNICAL COMMUNICATION (Certificate) Plan 23TI

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

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) 543-2042.

Associate in Applied Science and Career Certificates

WELDING

Engineering, Math and Physical Sciences Division
Room T102, (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	2
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	1-3
WLD 178	Gas Tungsten Arc Welding.....	3
	Technical Elective*	2-3

Total Hours for Certificate35-38

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
ROB 111	Introduction to Robotics.....	3

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	2
WLD 171	Gas Welding, Cutting and Brazing.....	3
WLD 176	Welding Certification	1-3
WLD 178	Gas Tungsten Arc Welding.....	3

Total Hours for Certificate18-20

GAS METAL ARC WELDING (SPECIALTY 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	2
WLD 175	Gas Metal Arc Welding	3
WLD 176	Welding Certification	1-3

Total Hours for Certificate15-17

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	2
WLD 172	Shielded Metal Arc Welding	3
WLD 174	Advanced Shielded Metal Arc Welding.....	3
WLD 176	Welding Certification	1-3

Total Hours for Certificate18-20

For more information on recommended courses or program specific advising, contact faculty member Randall Roettger or the Engineering, Math and Physical Science division at (847) 543-2044.

Joint Agreement Program Listing

The College of Lake County has joint agreements with other community college for particular career programs that we may not offer. Schools that participate in Joint Agreements with the College of Lake County are listed in the chart below. The institutions listed below treat CLC students as in-district residents by giving students equal consideration in admission to limited enrollment programs (within limits set forth by joint agreement) and by charging them in-district tuition rates. 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. Students interested in joint agreement programs should contact the Educational Affairs Office at (847) 543-2412 for program information and authorization to register at the appropriate school.

Residents of other communities

The College of Lake County offers programs that other Illinois community colleges may not offer. The following programs (certificates and associate degrees) are available at CLC for in-district tuition rates to the residents of specified Illinois community college districts upon presentation of a Joint Agreement Authorization form obtained at the home district college. Gateway Technical College residents will be assessed a slightly higher tuition rate upon presentation of the Joint Agreement Authorization.

College	Programs Offered by CLC	Programs Offered by Agreement School
College of DuPage 425 Fawell Blvd. Glen Ellyn, IL 60137	N/A	Travel & Tourism (Cert)
Elgin Community College 1700 Spartan Dr. Elgin, IL 60123	Architectural Technology (AAS & Cert) Civil Technology (AAS & Cert) Computed Tomography (Cert) Construction Management Technology (AAS & Cert) Health Information Technology (AAS) Library Technical Assistant (AAS & Cert) Magnetic Resonance Imaging (Cert) Medical Imaging (AAS)	Dental Assisting (Cert) Thermoplastics Injection Molding (Cert) Truck Driving (Cert)
Kankakee Community College 100 College Dr. Kankakee, IL 60901	N/A	Medical Laboratory Technology (AAS)
Triton College 2000 Fifth Ave. River Grove, IL 60171	Phlebotomy Technician (Cert)	Respiratory Care (AAS)

Continued

Associate in Applied Science and Career Certificates

College	Programs Offered by CLC	Programs Offered by Agreement School
Gateway Technical College Gateway Technical College 400 County Rd. H Elkhorn, WI 53121 **Students attending an approved program at Gateway Technical College must pay the Gateway in-district tuition per credit hour (not including lab and materials fees). NO CHARGEBACKS WILL BE ISSUED TO THIS SCHOOL	Automotive Collision Repair (Cert) Civil Technology/Environmental Option (AAS) Computed Tomography (Cert) Electrician Apprenticeship (AAS) Human Services –ASAAD (AAS) Machine Tool Trades (AAS) Magnetic Resonance Imaging (Cert) Medical Billing Specialist (Cert) Medical Imaging (AAS) Tool & Moldmaker (Cert)	Aeronautics-Pilot Training (AAS) Automated Manufacturing Systems Technician (AAS) Barber/Cosmetologist (DIP) Dental Assistant (DIP) Electromechanical Technology (AAS) Graphic Communications (AAS) Health Unit Coordinator (DIP) Hotel/Hospitality Management (AAS) Interior Design (AAS) Sign Language Interpreter Training (AAS) LPN Bridge to Nursing (AAS) Medical Assistant (DIP) Physical Therapist Assistant (AAS) Radio Broadcasting (AAS) Surgical Technology (AAS)
Oakton Community College 1600 E. Golf Rd. Des Plaines, IL 60016 7701 N. Lincoln Ave. Skokie, IL 60077	Architecture Courses (not offered at Oakton) Automotive Collision Repair (Cert) Computed Tomography (Cert) Hospitality and Culinary Management (Cert) Horticulture (AAS & Cert) Human Services – ASAAD Option (AAS) Library Technical Assistant (AAS & Cert) Magnetic Resonance Imaging (Cert) Surgical Technology (Cert) Welding (Cert) Massage Therapy (AAS) Phlebotomy (Cert)	Architecture Courses (not offered at CLC) Desktop Design (AAS) Facilities Management & Engineering (AAS) Financial Services (AAS & Cert) Graphic Design (AAS) Medical Laboratory Technology (AAS) Network Administration (Cert) Physical Therapist Assistant (AAS) Real Estate (AAS) Courses offered via interactive TV

Continued

Associate in Applied Science and Career Certificates

College	Programs Offered by CLC	Programs Offered by Agreement School
McHenry County College 8900 U.S. Hwy. 14 Crystal Lake, IL 60012	Architectural Technology (AAS & Cert) Automotive Collision Repair (Cert) Civil & Environmental Technology (AAS & Cert) CNC Programming (AAS & Cert) Computed Tomography (Cert) Computer Forensics (AAS) Construction Management Technology (AAS & Cert) Dental Hygiene (AAS) EKG Interpretation (Course VALH 7) Electrical/Electronic Maintenance (Cert) Electrician Apprenticeship (AAS) EMT (AAS) EMT – Basic (Cert) EMT – Paramedic (Cert) Emergency & Disaster management (Cert) Engineering Courses (not offered at MCC) 12 Lead ECG Interpretation (Course VALH 9) Health Information Technology (AAS) Horse Series (VPET 10 through 15) Hospitality and Culinary Management (AAS & Cert) Human Services & ASAAD Option (AAS & Cert) Intro to Linear Algebra (MTH 225) Library Technical Assistant (AAS & Cert) Machine Tool Trades (AAS & Cert) Magnetic Resonance Imaging (Cert) Medical Billing Specialist (Cert) Medical Imaging (AAS) Nursing (AAS) Paralegal Studies (AAS & Cert) Phlebotomy Technician (Cert) Refrigeration/Air Conditioning (AAS & Cert) Surgical Technology (AAS & Cert) Technical Communication (AAS & Cert) Welding (Cert)	Early Childhood Education (12 & 32 Hr. Cert) **EMT (AAS) EMT - Ambulance (Cert) EMT - Paramedic (Cert) Entrepreneurship (Cert) Fire Fighter II (Cert) Fitness Instructor Technology (AAS) Manufacturing Management (AAS) Manufacturing Supervision (Cert)

**Program available to students residing in College of Lake County district who need to complete the Emergency Medical Technician Certificate or Paramedic Certificate through fire departments within the Northern Illinois Medical Center Service area.

Continued

Associate in Applied Science and Career Certificates

College	Programs Offered by CLC	Programs Offered by Agreement School
Harper College 1200 W. Algonquin Palatine, IL 60067	Automotive Collision Repair (Cert) Automotive Technology (AAS & Cert) Civil Technology (AAS & Cert) Computed Tomography (Cert) Construction Management Technology (AAS & Cert) Health Information Technology (AAS) Human Services (AAS & Cert) Industrial Maintenance & Repair (AAS & Cert) Library Technical Assistant (AAS & Cert) Magnetic Resonance Imaging (Cert) Medical Imaging (AAS) Rehabilitation Nursing (Course VALH 8) Technical Communication (AAS & Cert) Tool & Moldmaker (Cert) Welding (Cert) - WLD 170 NOT included	Bread & Pastry Arts (Cert) Building Codes & Enforcement (Cert) Cardiac Technology (AAS) Cardiographic Technician (Cert) Commercial Credit Management (AAS) Culinary Arts (Cert) Diagnostic Cardiac Sonographer (Cert) Diagnostic Medical Sonography (AAS & Cert) Dietetic Technician (AAS) Fashion Design (AAS & Cert) Fashion Merchandising (AAS) Financial Services (AAS) Interior Design (AAS) Medical Assistant (Cert) Nanoscience Technology (AAS) Pediatric Echocardiography (Cert) Sign Language Interpreting (Cert) Supply Chain Management (AAS & Cert)

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. A class schedule, containing a list of classes to be offered and general registration information, is published prior to each registration and may be obtained from the Admission Office.

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. A course designed to follow another in the same subject area should be taken in sequence according to its number.

First Digit Indicates Year

Courses numbered 000 to 099 indicate adult education, continuing education, or basic skills courses. Courses numbered 100-199 are normally freshman courses, and 200-299 are usually sophomore courses. Courses numbered 500-899 are adult education or continuing education courses.

Second Digit Indicates Program

Courses numbered 100-209 with a middle digit of 0 are development courses 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 numbered 110-299 with a middle digit 1, 3, 5, 7, or 9 are career courses. In some career programs, middle digits of 2, 4, 6, or 8 are also used for career courses. Policies concerning the transferability of some of these courses to senior colleges and universities vary. Students are urged to consult the Articulation Handbook available in the Counseling Center and/or to contact the senior institution directly.

Courses number 100-299 with a middle digit 2, 4, or 6 are usually transfer courses. These courses have been articulated according to the standards of the Illinois Community College Board. To ensure a specific course is transferable to a specific senior college or university, students again are urged to consult the Articulation Handbook available in the Counseling Center and/or to contact the senior institution directly.

Third Digit Indicates Sequence

The third digit in any course number serves to distinguish the course from other courses within the same subject area and in the same year.

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 Discipline/Prefix Reference

Course descriptions are organized alphabetically by course discipline in the following section. The list below shows both the discipline and course prefix for cross reference.

Accounting (ACC)	Health Information Technology (HIT)
Administrative Office Systems (AOS)	Health and Wellness Promotion (HWP)
Adult Basic Education (ABE)	Heating and Air Conditioning Engineering Technology (HET)
Adult Education (ADE)	History (HST)
Anthropology (ANT)	Horticulture (HRT)
Arabic (ARA)	Hospitality and Culinary Management (HCM)
Architectural Technology (ARC)	Human Services (HUS and HUX)
Art (ART)	Humanities (HUM)
Automotive Collision Repair (ABR)	Industrial Electrician (ISE)
Automotive Technology (AUT)	International Studies in Social Science (SSI)
Biology (BIO)	Italian (ITL)
Business Administration (BUS)	Japanese (JPN)
Chemistry (CHM)	Laser/Photonics/Optics (LPO)
Chinese (CHI)	Liberal Arts & Science (LAS)
Cisco Networking (CNA)	Library Science (LSC)
Civil Technology (CIV)	Library Technical Assistant (LTA)
College Study Skills (CSS)	Machine Tool Trades (MTT)
Communication (CMM)	Manufacturing Technology (MFG)
Computer Aided Design (CAD)	Massage Therapy (MAS)
Computer Drafting Application (CDA)	Math Computer Science (MCS)
Computer Information Technology (CIT)	Mathematics (MTH)
Computerized Numerical Control (CNC)	Mechanical Engineering Technology (MET)
Construction Management Technology (CMT)	Medical Assisting (MOA)
Cooperative Education (EWE)	Medical Imaging (MIM)
Criminal Justice (CRJ)	Music (MUS)
Dance (DNC)	Nanoscience Technology (NAN)
Dental Hygiene (DHY)	Nursing (NUR)
Digital Media and Design (DMD)	Paralegal Studies (PLS)
Early Childhood Education (ECE)	Personal Development (PDS)
Earth Science (ESC)	Philosophy (PHI)
Economics (ECO)	Phlebotomy (PBT)
Education (EDU)	Photography (see ART)
Educational Work Experience (EWE)	Physical Education (PED)
Electrical Technology (ELC)	Physics (PHY)
Electrical Engineering Technology (EET)	Political Science (PSC)
Electrician Apprenticeship (EAP)	Psychiatric Rehabilitation (PRS)
Electronic Information Technology (EIT)	Psychology (PSY)
Electronic Systems Technology (EST)	Robotics (ROB)
Electronics Engineering Technology (ELT)	Russian (RUS)
Electronics Manufacturing (EMF)	Social Science (SSC)
Emergency and Disaster Management (EDM)	Social Studies Topics (SST)
Emergency Medical Technology (EMT)	Social Work (SWK)
Engineering (EGR)	Sociology (SOC)
English (ENG)	Spanish (SPA)
English Language Instruction (ELI)	Spanish Adult Education (SAE)
English as a Second Language (ESL)	Surgical Technology (SRG)
Fire Science Technology (FST)	Theatre (THE)
French (FRN)	Vocational Skills Training (VST)
Gender and Sexuality Studies (GSX)	Water-Wastewater (WWW)
General Education Development (GED)	Welding (WLD)
Geography (GEG)	Continuing Education Courses
German (GER)	

College of Lake County's General Education IAI Courses

The chart below shows College of Lake County's transfer courses listed by IAI category that meet IAI (Illinois Articulation Initiative) General Education Core Curriculum guidelines. IAI General Education Course Codes follow the College of Lake County title. Course descriptions in this section also include IAI codes as appropriate. Transfer degree guidelines list specific courses conforming to IAI core curriculum; see the appropriate section in this catalog for more information. See page 42 for an explanation of the Illinois Articulation Initiative.

<u>Anthropology</u>		<u>IAI Code</u>	<u>English</u>	<u>IAI Code</u>
ANT 121	Introduction to Anthropology	S1900N	ENG 121	English Composition I
ANT 221	Cultural Anthropology	S1901N	ENG 122	English Composition II
ANT 222	Introduction to Physical Anthropology	S1902	ENG 126	Advanced Composition: Scientific & Technical Communication
ANT 224	Introduction to Archaeology	S1903	ENG 129*	Women in Literature
ANT 228	Cross-Cultural Relationships	S1904D	ENG 223	Survey of Major American Writers
 <u>Arabic</u>		 <u>IAI Code</u>	 <u>IAI Code</u>	 <u>IAI Code</u>
ARA 222*	Intermediate Modern Standard Arabic II	H1900	ENG 225	Major Trends & Authors of English Literature
 <u>Art</u>		 <u>IAI Code</u>	 <u>IAI Code</u>	 <u>IAI Code</u>
ART 121	Introduction to Art	F2900	ENG 226	Modern English Literature
ART 240	History of Art I	F2901	ENG 227	Introduction to Shakespeare
ART 241*	History of Art II	F2902	ENG 228	World Literature
ART 242*	History of Art III	F2902	ENG 229	20th Century American Literature
ART 260	History of Photography	F2904	ENG 241	Introduction to Poetry
 <u>Biology</u>		 <u>IAI Code</u>	 <u>IAI Code</u>	 <u>IAI Code</u>
BIO 120	Environmental Biology	L1905L	ENG 243	Introduction to Fiction
BIO 123*	Principles of Biology	L1900L	ENG 244	Mythology and Fairy Tales
BIO 127	Introduction to Evolution	L1907	ENG 246	Latin American Writers
BIO 140	Environmental Issues without Lab	L1905	ENG 247*	International Women Writers
BIO 141*	Concepts in Biology	L1900L		
BIO 149	Genetics and Society	L1906		
BIO 161*	General Biology I	L1900L		
 <u>Chinese</u>		 <u>IAI Code</u>	 <u>IAI Code</u>	 <u>IAI Code</u>
CHI 222*	Intermediate Chinese II	H1900	ESC 120*	Earth Science
 <u>Chemistry</u>		 <u>IAI Code</u>	 <u>IAI Code</u>	 <u>IAI Code</u>
CHM 120*	Chemical Concepts	P1902L	ESC 121	Physical Geology
CHM 121*	General Chemistry I	P1902L	ESC 123*	Introduction to Meteorology
CHM 140	Chemistry for a Changing World	P1903	ESC 124*	Oceanography
CHM 142	Chemistry for a Changing World with lab	P1903L	ESC 127	Introduction to Meteorology with Lab
 <u>Communication</u>		 <u>IAI Code</u>	 <u>IAI Code</u>	 <u>IAI Code</u>
CMM 121	Fundamentals of Speech	C2900	ESC 128	Great Mysteries of the Earth
 <u>Dance</u>		 <u>IAI Code</u>	 <u>IAI Code</u>	 <u>IAI Code</u>
DNC 240	The Art of Dance	F1906	ESC 140	Introduction to Astronomy
 <u>Economics</u>		 <u>IAI Code</u>	 <u>IAI Code</u>	 <u>IAI Code</u>
ECO 221	Principles of Macroeconomics	S3901	ESC 224	Environmental Geology
ECO 222	Principles of Microeconomics	S3902		
 <u>Geography</u>		 <u>IAI Code</u>	 <u>IAI Code</u>	 <u>IAI Code</u>
GEG 120	Physical Geography with Lab	P1903L	FRN 222*	Intermediate French II
GEG 121	Physical Geography		FRN 223*	French Civilization I
GEG 122*	Cultural Geography		FRN 224*	French Civilization II
GEG 123*	World Regional Geography			
 <u>German</u>		 <u>IAI Code</u>	 <u>IAI Code</u>	 <u>IAI Code</u>
GER 222*	Intermediate German II	F1906	GER 222*	Intermediate German II
GER 223*	German Civilization I		GER 223*	German Civilization I
GER 224*	German Civilization II		GER 224*	German Civilization II

* Note: Several CLC courses share an IAI number; however, each IAI number may be used only once for a general education requirement. Students may use a course with the same IAI number as an elective only. Courses that share an IAI number are noted with an asterisk (*).

Course Information and Descriptions

<u>History</u>		<u>IAI Code</u>	<u>Music</u>		<u>IAI Code</u>
HST 121	History of Western Civilization to 1500	S2902	MUS 124 MUS 224	Introduction to Music Music Literature	F1900 F1902
HST 122	History of Western Civilization from 1500	S2903			
HST 126	History of Contemp Nonwestern Civilization	S2905N	PHI 121 PHI 122*	Introduction to Philosophy Logic	H4900 H4906
HST 127	History of Chinese Culture & Society	S2914N	PHI 123	Philosophy of Religion	H4905
HST 221	U.S. History to 1876	S2900	PHI 125	Introduction to Ethics	H4904
HST 222	United States History 1876 to Present	S2901	PHI 126	World Religions	H5904N
HST 245	History of Latin America I	S2901N	PHI 221	Asian Philosophy	H4903N
HST 246	History of Latin America II	S2911N			
<u>Humanities</u>		<u>IAI Code</u>	<u>Physics</u>		<u>IAI Code</u>
HUM 121	Introduction to Humanities I	HF902	PHY 120	Practical Aspects of Physics	P1901L
HUM 122	Introduction to Humanities II	HF903	PHY 121	General Physics I	P1900L
HUM 123	Introduction to Film	F2908	PHY 123	Physics for Science & Engineering I	P2900L
HUM 126	Introduction to the Performing Arts	F9900			
HUM 127*	Critical Thinking	H4906			
HUM 128	Introduction to Middle-Eastern Civilizations	H2903N	PSC 121	American National Politics	S5900
HUM 129	Introduction to East Asian Civilizations	HF904N	PSC 122	State & Local Politics	S5902
HUM 140*	Introduction to International Film	F2909	PSC 221	Comparative Political Systems	S5905
HUM 221	American Decades	HF906D	PSC 222	International Relations	S5904N
HUM 222*	Film and Society	F2909			
HUM 226	Women and the Arts	HF907D			
<u>Italian</u>		<u>IAI Code</u>	<u>Psychology</u>		<u>IAI Code</u>
ITL 222*	Intermediate Italian II	H1900	PSY 121	Introduction to Psychology	S6900
ITL 223*	Italian Civilization I	H1900	PSY 220	Lifespan Development	S6902
ITL 224*	Italian Civilization II	H1900	PSY 222	Child Growth & Development	S6903
			PSY 225	Social Psychology	S8900
			PSY 226	Adolescent Development	S6904
<u>Japanese</u>		<u>IAI Code</u>	<u>Russian</u>		<u>IAI Code</u>
JPN 222*	Intermediate Japanese II	H1900	RUS 222*	Intermediate Russian II	H1900
<u>Math</u>		<u>IAI Code</u>	<u>Sociology</u>		<u>IAI Code</u>
MTH 127	Finite Mathematics I	M1906	SOC 121	Introduction to Sociology	S7900
MTH 140	Contemporary Math	M1904	SOC 222	Social Problems	S7901
MTH 141	Quantitative Literacy	M1901	SOC 224	Sociology of the Family	S7902
MTH 145	Calculus & Analytic Geometry I	M1900-1	SOC 225	Class, Race and Gender	S7904D
MTH 146	Calculus & Analytic Geometry II	M1900-2			
MTH 221	Mathematics for Elementary Teaching II	M1903	SPA 222*	Intermediate Spanish II	H1900
MTH 222	Elementary Statistics	M1902	SPA 223*	Spanish Civilization I	H1900
MTH 224	Calculus for Business and Social Sciences	M1900-B	SPA 224*	Spanish Civilization II	H1900
MTH 244	Discrete Mathematics	M1905			
MTH 246	Calculus & Analytic Geometry III	M1900-3			
<u>Theater</u>			<u>Theater</u>		<u>IAI Code</u>
			THE 121	Introduction to Theatre I	F1907
			THE 123	Diversity in American Theatre	F1909D

* Note: Several CLC courses share an IAI number; however, each IAI number may be used only once for a general education requirement. Students may use a course with the same IAI number as an elective only. Courses that share an IAI number are noted with an asterisk (*).

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.

<u>Accounting</u>	ACC 121 Financial Accounting ACC 122 Managerial Accounting	<u>IAI Code</u>	BUS 903 BUS 904	<u>English</u>	ENG 123 Mass Communications ENG 124 Newswriting I	<u>IAI Code</u>	MC 911 MC 919
<u>Agriculture</u>	CIT 120 Introduction to Computers	<u>IAI Code</u>	AG 913	<u>Horticulture</u>	HRT 111 Basic Horticulture	<u>IAI Code</u>	AG 905
<u>Biology</u>	BIO 161* General Biology I BIO 162* General Biology II	<u>IAI Code</u>	BIO 910 BIO 910	<u>Mechanical Engineering Technology</u>	MCD 111 Manufacturing Processes	<u>IAI Code</u>	IND 913
<u>Business Administration</u>	CIT 120 Introduction to Computers MTH 222 Elementary Statistics	<u>IAI Code</u>	BUS 902 BUS 901	<u>Math Computer Science</u>	MCS 140* Computer Programming I MCS 141* Computer Science I MCS 142 Computer Science II	<u>IAI Code</u>	CS 911 CS 911 CS 912
<u>Chemistry</u>	CHM 121 General Chemistry I CHM 123 General Chemistry II CHM 222 Organic Chemistry I CHM 223 Organic Chemistry II	<u>IAI Code</u>	CHM 911 CHM 912 CHM 913 CHM 914	<u>Math</u>	MTH 145 Calculus & Analytic Geometry I MTH 146 Calculus & Analytic Geometry II MTH 225 Introduction to Linear Algebra MTH 227 Ordinary Differential Equations MTH 246 Calculus & Analytic Geometry III	<u>IAI Code</u>	MTH 901 MTH 902 MTH 911 MTH 912 MTH 903
<u>Computer Information Technology</u>	CIT 141 Programming in C++ CIT 241 Advanced C++ MTH 244 Discrete Mathematics	<u>IAI Code</u>	CS 911 CS 912 CS 915	<u>Psychology</u>	PSY 122 Psychology in Business & Industry PSY 223 Abnormal Psychology PSY 224 Theories of Personality	<u>IAI Code</u>	PSY 906 PSY 905 PSY 907
<u>Criminal Justice</u>	CRJ 121 Introduction to Criminal Justice CRJ 123 Introduction to Criminology CRJ 124 Penology and Corrections CRJ 229 Juvenile Delinquency	<u>IAI Code</u>	CRJ 901 CRJ 912 CRJ 911 CRJ 914	<u>Theatre</u>	CMM 124 Oral Interpretation THE 125 Principles of Acting THE 126 Stagecraft	<u>IAI Code</u>	TA 916 TA 914 TA 911
<u>Engineering</u>	EGR 121 Engineering Graphics EGR 221 Statics and Dynamics EGR 222 Engineering Mechanics of Materials EGR 260 Introduction to Circuit Analysis	<u>IAI Code</u>	EGR 941 EGR 944 EGR 945 EGR 931L				

* Note: Several CLC courses share an IAI number; however, each IAI number may be used only once for a general education requirement. Students may use a course with the same IAI number as an elective only. Courses that share an IAI number are noted with an asterisk (*).

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

IAI S1 900N - Illinois Articulation Initiative General Education (IAI Number)

ACCOUNTING (ACC)

Business Division, Room T102, (847) 543-2041

ACC 112 Accounting Procedures I (3-0) 3 Hours

An introduction to basic accounting procedures in recording business transactions in journals and their periodic summary in ledgers for the purpose of preparing Financial Statements for simple business organizations.

Prerequisite: Language Proficiency 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.

Prerequisite: ACC 112 (C or better) or higher level financial accounting course

ACC 114 Payroll Accounting (2-0) 2 Hours

A practical study of current Social Security, Income Tax, Employment and Unemployment laws and their effect on basic payroll accounting systems. Actual preparation of payroll records and tax returns that are required of business is included.

Prerequisite: ACC 112 (C or better) or higher level financial accounting course
Course fee

ACC 121 Financial Accounting (4-0) 4 Hours

Financial Accounting is a thorough coverage of financial accounting topics. The first part of the course provides a clear, concise coverage of the accounting cycle using the corporate structure to produce the general-purpose financial statements: Income Statement, Statement of Retained Earnings, Balance Sheet and Statement of Cash Flows. The remainder of the class covers financial topics that will enhance the student's understanding of the general-purpose financial statements and of corporate financing through the use of debt and equity. *Note:* Minimum time for classwork and homework is 12-15 hours per week. The department assumes that you have business math and reading proficiencies. Prior enrollment in BUS 121 recommended.

Prerequisites: Language Proficiency and AOS 122 or MTH 102 (C or better in either) or higher math course or appropriate score on the math placement test.

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.

Prerequisite: ACC 121 (C or better)

Recommended: CIT 119 or CIT 120

Course fee

IAI: BUS 904

ACC 171 Accounting Information and Computer Systems (2-0) 2 Hours

The course covers the financial accounting cycle using an information systems approach. Students will learn to use an integrated accounting software package.

Prerequisites: ACC 113 (C or better) or ACC 121 (C or better) - AND - CIT 119 or CIT 120

Course fee

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.

Prerequisites or Corequisites: ACC 112 and ACC 113 and ACC 114 and ACC 171 and AOS 111 and AOS 122 and CIT 119

Course fee

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.

Prerequisite: ACC 113 or ACC 121 (C or better in either course)

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.

Prerequisite: ACC 212 (C or better)

ACC 214 Cost Accounting (3-0) 3 Hours

This course is an advanced study of the information required in management planning and control systems. The emphasis is on the systematic application of cost accounting concepts as a tool for management decisions. Topical areas include product costing, operational control, cost allocation, budgeting, inventory control, analysis of cost-volume-profit relationships, and variance analysis.

Prerequisite: ACC 122 (C or better)

Course Information and Descriptions

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.

Prerequisite: ACC 122 (C or better)

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.

Prerequisite: ACC 221 (C or better)

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.

Prerequisite: ACC 222 (C or better) OR ACC 221 (B or better) and concurrent enrollment in ACC 222.

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.

Prerequisite: ACC 222 (C or better) OR ACC 221 (B or better) and concurrent enrollment in ACC 222.

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.

May be taken four times, but any topic only once

ADMINISTRATIVE OFFICE SYSTEMS (AOS)

Business Division, Room T102, (847) 543-2041

AOS 111 Business Communications (3-0) 3 Hours

A course designed to improve communication skills and prepare a student 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, electronic messages, reports, employment letters, and resumes.

Prerequisite: Language Proficiency
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 e-mail, 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, the Internet, and e-mail.

Prerequisite: Language Proficiency
Course fee

AOS 113 Comprehensive Word Processing (3-0) 3 Hours

This is a comprehensive course in the use and operation of word processing software on a computer. Topics covered include entering, editing, formatting, saving, retrieving, using writing tools, and printing various documents. Advanced and specialized topics to be covered include tables, merge, macros, outlining, templates, footnotes/endnotes, headers/footers, page numbering, hyphenation, search and replace, and graphics. Several projects will be completed during the semester.

Course fee

AOS 117 Machine Transcription (3-0) 3 Hours

This course integrates word processing and typing skills with the application of advanced rules of punctuation, grammar, capitalization, word usage, sentence structure, and formatting to machine-transcribed business documents. Proofreading and editing techniques will be covered.

Prerequisites: AOS 113 and AOS 172 and AOS 178
Course fee

AOS 118 Advanced Word Processing/Desktop Publishing (3-0) 3 Hours

Students gain understanding of the operations and applications of word processing software with the incorporation of Desktop Publishing. Topics covered include Desktop Publishing terminology, graphics, typestyles, typographic refinements, styles, design principles, forms creation, and converting to HTML format for Web publishing. Students will produce documents such as business cards, flyers, and newsletters that combine text with graphics.

Prerequisite: AOS 113 or passing score on the Word Processing Placement Test
Course fee

AOS 119 Records Management (2-0) 2 Hours

This course will introduce records and data management including the creation, storage, control, use, and disposition of records. It will include the ARMA (Association of Records Managers and Administrators, Inc.) compatible indexing rules; managing paper and electronic systems; numeric, geographic and subject systems; and database software use.

Prerequisite: Language Proficiency

AOS 122 Business Mathematics (3-0) 3 Hours

Students will learn how to solve math problems that are typically encountered in the business environment. Areas of study include review of fractions and decimals, equations, percentages, discounts and pricing, simple and compound interest (present and future value), installment buying, depreciation, and inventory.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course Information and Descriptions

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 it 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.
Course fee

AOS 171 Computer Keyboarding II (1.5-1) 2 Hours
This course is designed to continue to build 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.
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 an intensive coverage of correct business word usage, punctuation, grammar, and sentence structure. Proofreader’s marks and techniques used to improve proofreading are included.
Prerequisite: Language Proficiency

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. AOS 175 focuses on increasing keyboarding speed and accuracy on straight-copy timings.
Course fee

AOS 178 Intermediate Keyboarding (2-2) 3 Hours
Intermediate Keyboarding focuses on two goals: increasing speed/accuracy on straight-copy timings and increasing the production rate of basic office documents. Students will also learn formatting of business documents. Knowledge of word processing software is required.
Prerequisite: Language Proficiency 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, telecommunications, time management, and mailing systems.
Prerequisite: Language Proficiency

AOS 215 Presentation Software (3-0) 3 Hours
This course is an introduction to the fundamentals of Microsoft’s PowerPoint. Topics include creating colorful and effective presentations consisting of words, charts, animation, sound and graphics. Output of note pages, handouts and posting to the Web will be covered. This course is designed for individuals in business, education, or sales who need to prepare professional

presentations. Linking and embedding in Word and Excel will also be covered.

Prerequisite: Language Proficiency
Course fee

AOS 216 Integrated Office Projects (3-0) 3 Hours
Students will complete integrated projects that represent what is required in an actual 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.
Prerequisites: (AOS 113 - AND - AOS 112) or CIT 119
Course fee

AOS 223 Advanced Keyboarding (2-2) 3 Hours
Advanced Keyboarding focuses on two goals: increasing speed/accuracy on straight-copy timings and increasing the production rate of complex and specialized office documents. The formatting of complex and specialized office documents is covered thoroughly.
Prerequisite: AOS 178
Course fee

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.
Prerequisite: AOS 111 or ENG 121

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.
May be taken four times, but any topic only once
Course fee

ADULT BASIC EDUCATION (ABE)

Adult Basic Education, GED and ESL Division
Building 4, (847) 543-2021

The Adult Education Program is funded in part by grants from the Federal Government totaling \$622,290. This represents 16% of the total cost of the program.

ABE 1 Adult Basic Education I (3-0) 3 Hours
This course is an individualized program in reading, language development, mathematics and life-coping skills. Students will progress at their own rates through basic reading, writing and arithmetic skills.
May be taken four times for credit

Course Information and Descriptions

ABE 2 Adult Basic Education II (3-0) 3 Hours

This is a program designed to teach and review basic reading, writing, and mathematics skills necessary to function satisfactorily in daily life. The program takes an individualized approach. Students' needs determine level and kinds of materials used.

May be taken four times for credit

ABE 3 Pre General Educational Development (3-0) 3 Hours

This is an individualized program in general language development and mathematics. Students progress at their own rates in reading comprehension, English grammar, spelling and punctuation, as well as in mathematics. The program is designed to raise basic skills in mathematics, reading and language to a level which will enable students to pursue the GED program.

May be taken four times for credit

ABE 10 Literacy I (3-0) 3 Hours

This is an individualized program of instruction that focuses on developing literacy skills in reading, writing and arithmetic. The course is designed to meet each student's personal goals.

May be taken four times for credit

ABE 11 Literacy II (3-0) 3 Hours

This course is a continuation of ABE 010. Students will continue to progress at their own rates through basic literacy skills in reading, writing and arithmetic. The program is designed to raise students' basic skills in these areas to the third grade level.

May be taken four times for credit

ABE 20 Beginning ABE I (3-0) 3 Hours

This is an individualized program of instruction for students with limited 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.

May be taken four times for credit

ABE 21 Beginning ABE II (3-0) 3 Hours

This course is a continuation of ABE 020, enabling students to progress to the next level of education. It will review, teach and maintain the basic skills. Students will progress at their own rate. Students' needs determine level and kinds of materials used.

May be taken four times for credit

ABE 30 Intermediate ABE I (3-0) 3 Hours

This course will focus on group learning situations and is intended for students who want to progress and master the basic skills. Course instruction will include reading, language development, writing and mathematics. Students may progress at their own rate.

May be taken four times for credit

ABE 31 Intermediate ABE II (3-0) 3 Hours

This course is a continuation of ABE 030. Course instruction will include reading, language development, writing and mathematics. Students will be able to identify the ways to help them in reading a variety of materials. The course will focus on individualized instruction as well as group learning situations.

May be taken four times for credit

ABE 40 Advanced ABE I (3-0) 3 Hours

This course focuses on instruction in reading, language development and mathematics, as well as problem-solving skills. Real-life applications including work-related skills will be covered. Students' needs determine level and kinds of materials used.

May be taken four times for credit

ABE 41 Advanced ABE II (3-0) 3 Hours

This course is a continuation of ABE 040. It is designed to teach and review basic reading, writing, mathematics, and problem-solving skills. Real-life applications including work-related skills will be covered. Students' needs determine level and kinds of materials used.

May be taken four times for credit

ABE 50 Pre-GED I (3-0) 3 Hours

This course is an individualized program in general language development and mathematics. Students progress at their own rates in reading comprehension, English 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 GED program.

May be taken four times for credit

ABE 51 Pre-GED II (3-0) 3 Hours

This course is a continuation of ABE 050. Students will continue to progress at their own rates through reading comprehension, English 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 GED program.

May be taken four times for credit

ADULT EDUCATION (ADE)

Adult Basic Education, GED and ESL Division
Building 4, (847) 543-2021

HIGH SCHOOL COMPLETION classes are for adults 19 years and older who have separated from a secondary educational system and want to complete their high school graduation requirements to earn a high school diploma.

ADE courses do not apply to any associate degree or career certificate.

Students enrolling in college level instruction and students entering the college on F1 visas are not eligible for tuition free adult education classes.

ADE 8 Constitution Workshop (.5-0) 0.5 Hour

Preparation for students who need to pass the U.S. and State of Illinois Constitution Exam either for the GED , College of Lake County Graduation or Illinois Teaching Certificate requirement. The workshop will stress vocabulary, government structure

May be taken four times for credit

ADE 16 Back to School (Variable) 1-4 Hours

Notetaking, listening, textbook reading and time management are some of the topics presented in this course. An individualized approach based on needs of students will be used.

May be taken four times for credit

ADE 17 Reading Improvement I (Variable) 0.5-4 Hours

Instruction that includes reading comprehension, vocabulary development and related study skills is designed to review as well as enhance the ability to cope with new situations.

May be taken four times for credit

Course Information and Descriptions

ADE 18 Reading Improvement II (Variable) 0.5-3 Hours
Instruction that includes narrative and expository reading skills designed to help students improve their comprehension, vocabulary, study skills, and reading rate using textbooks common at the high school level.

ADE 19 Basic Math Review (1-0) 1 Hour
This course is geared toward the ABE, GED or returning students who need specialized help in math. The review will start with whole numbers. Additional areas to be covered include addition, subtraction, multiplication, division, fractions, and decimals.
May be taken four times for credit

**ADE 25 Special Problems in English
as a Second Language (1-2) 2 Hours**
This course is for limited English proficiency students at the upper beginning to advanced level who have attained proficiency in some skill areas of English but who have special problems in other specific areas because of interference from their native language. Students will learn to distinguish more accurately the sounds heard in American English and to pronounce these sounds more clearly in words and phrases. They will be able to use the English orthographic system and will learn the rules of formation of words and sentences in writing.
May be taken four times for credit

**ADE 30 Pre-Employment English as a Second
Language: Beginning (Variable) 1-4 Hours**
This course is for students who have little or no knowledge of English. Students will learn to speak, read and write English with a pre-employment focus. They will practice speaking and writing personal information about themselves, reading and using transportation schedules and identifying and purchasing clothing items.
May be taken four times for credit

**ADE 31 Pre-Employment English as a Second
Language: Intermediate I (Variable) 1-4 Hours**
This class is for students who can already speak and write about present events in English and can answer basic information questions about themselves. Students will improve speaking, reading and writing skills with a pre-employment focus. They will learn to use possessives, adverbs of manner, modals and past tense verbs. They will gain survival skills in areas of housing, utilities, cars and food and will learn rights and responsibilities of employers and employees.
May be taken four times for credit

**ADE 32 Pre-Employment English as a Second
Language: Intermediate II (Variable) 2-4 Hours**
This class is for students who are able to communicate about past and present events and have a good basic vocabulary. Students will sharpen their speaking, reading and writing skills with a pre-employment focus. They will learn to use future tense, negative, two-word verbs and comparative adjectives. They will learn about kinds of jobs, how to fill out job applications and how to have a successful job interview.
May be taken four times for credit

**ADE 33 Pre-Employment English as a Second
Language: Advanced (Variable) 2-4 Hours**
This class is for students who are already able to use various verb tenses and grammatical structures and many vocabulary items. Students in this class will refine their speaking, reading and writing skills with a focus on pre-employment. They will learn to use present perfect verbs, superlative adjectives, impersonal

expressions, modals in various tenses and comparisons of adverbs. They will gain survival skills in the areas of budgeting, taxes, insurance, banking and understanding the paycheck.
May be taken four times for credit

**ADE 40 English as a Second Language in Pre-GED:
Beginning I (Variable) 1-2 Hours**
For students who have little or no proficiency in English. This course will emphasize speaking but will also include instruction in listening, reading, and writing skills. It will teach basic English grammar as it relates to personal information.
May be taken four times for credit

**ADE 41 English as a Second Language in Pre-GED:
Beginning II (Variable) 1-2 Hours**
Students taking this course have little or no proficiency in English. This course emphasizes speaking but will include listening, reading, and writing skills. Students will learn basic English grammar as it relates to reading a newspaper, train and bus schedules, and identifying articles of clothing, appliances, and household items.
May be taken four times for credit

**ADE 42 English as a Second Language in Pre-GED:
Beginning III (Variable) 1-2 Hours**
Students taking this course have little or no proficiency in English. The course emphasizes speaking but includes listening, reading, and writing skills. Students will learn basic English grammar as it relates to survival in an American community.
May be taken four times for credit

**ADE 43 English as a Second Language in Pre-GED:
Intermediate I (Variable) 1-2 Hours**
For students who have a minimal knowledge of basic English grammar and can communicate orally and graphically in present and past tense. Besides grammar, students will learn about the human body, weather and the solar system.
May be taken four times for credit

**ADE 44 English as a Second Language in Pre-GED:
Intermediate II (Variable) 1-2 Hours**
For students who have a minimal knowledge of basic English grammar and can communicate orally and graphically in present and past tense. They will learn future and past continuous; recognize a sentence, clause, and phrase; locate main ideas, supporting details, and simple inferences on reading passages.
May be taken four times for credit

**ADE 45 English as a Second Language in Pre-GED:
Intermediate III (Variable) 1-2 Hours**
Students in this course have a minimal knowledge of basic English grammar and can communicate orally and graphically in present and past tense. They will learn future tense with "will", present perfect, modals, infinitives, and phrasal verbs. They will learn basic content relating to Social Studies and Science GED tests, including the study of plants and behavioral science.
May be taken four times for credit

**ADE 48 English as a Second Language in Pre-GED:
Advanced III (Variable) 1-2 Hours**
This class is for students who have achieved communicative competence but wish to refine listening, speaking, reading, and writing skills. Students will review all conditional tenses and study the passive voice and learn content in advanced areas relating to the Social Science GED test and the Constitution test.
May be taken four times for credit

Course Information and Descriptions

**ADE 504 U.S. History-Government/
Citizenship (4-0)**

4 Hours

For those who are proficient in reading, writing and speaking English and need to gain knowledge about U.S. government and history in order to pass the Immigration and Naturalization Service Citizenship Exam.

May be taken four times for credit

ADE 701 Career Development I (1.5-0)

1.5 Hours

Students will research a career plan for themselves to begin their job search in the computerized world of business.

May be taken four times for credit

ADE 702 Career Development II (1.5-0)

1.5 Hours

Students will develop a positive and professional career self-image and will be able to apply a variety of interview and job seeking techniques to successfully obtain employment.

Prerequisite: ADE 701

May be taken four times for credit

ADE 703 Independent Job Search (1-0)

1 Hour

This intensive course will advise students on preparing for, obtaining and maintaining employment. The course will provide interviewing skills development, application completion, proper attire and resume information as needed.

May be taken four times for credit

ADE 900 Spanish I (3-0)

3 Hours

This course is designed to help students begin to develop language skills in Spanish through reading, writing, listening and speaking activities. Students will engage in conversations, create written work and utilize a computer program on topics such as daily routine, family, leisure activities, celebrations, food and a variety of other topics. Students will gain proficiency in the use of the present tense and conversational future tense.

ADE 902 Astronomy I (3-0)

3 Hours

This course provides students with an introduction to astronomy. Students will interpret the charts of the heavens, the solar system including planets, moons, stellar formations and explosions, neutron stars and black holes. They will become familiar with the use of telescopes and spectroscopy.

Course fee

ADE 903 Astronomy II (3-0)

3 Hours

This course is a continuation of Astronomy I and will go further into depth regarding the formation of the universe, stellar classifications, neutron stars and black holes.

ADE 910 Practical Math I (Variable)

0.5-4 Hours

This course covers the basic arithmetic functions necessary for home, business and industry.

ADE 911 Practical Math II (Variable)

0.5-4 Hours

This course covers the advanced arithmetic functions to manage a home, or work in business and industry.

ADE 912 Algebra I Part I (Variable)

0.5-3 Hours

This course will cover integers, variables, and linear equations. Emphasis will be placed on word problems.

ADE 913 Algebra I Part II (Variable)

0.5-3 Hours

This course will cover the use of binomials, factoring, solving quadratic equations, and quadratic formula.

ADE 914 Geometry I (3-0)

3 Hours

This course is an introduction to the concepts underlying the study of plane and solid geometry.

ADE 915 Geometry II (3-0)

3 Hours

This course is a continuation of Geometry I. It includes the study of plane and solid geometry with an emphasis on the Pythagorean Theorem and formulas.

ADE 916 Algebra II Part I (3-0)

3 Hours

This course will introduce students to advanced algebraic techniques including the real number system, polynomials, functions, graphing equations, and slope intercept concepts.

ADE 917 Algebra II Part II (3-0)

3 Hours

This course is a continuation of Algebra II Part I. This course introduces the student to logarithms, complex numbers, linear equations, roots of polynomials, sines, cosines, and tangent.

ADE 918 Calculus I (3-0)

3 Hours

This course is an introduction to mathematical concepts and methods integral to the study of calculus.

ADE 919 Calculus II (3-0)

3 Hours

This course is a continuation of mathematical concepts in Calculus I including using integration, definite and indefinite integrals, and surface areas of revolution.

ADE 920 English Fundamentals I (Variable)

0.5-3 Hours

This course is designed to help individuals improve their written and oral English skills, usage, logic and organization.

Course fee

May be taken three times for credit toward degree

ADE 921 English Fundamentals II (3-0)

3 Hours

This course is a continuation of English Fundamentals I. This course is designed to build skills in order to prepare the student for the successful study of English at the high school level.

ADE 923 American Literature I (3-0)

3 Hours

Students will develop reading, writing, and speaking skills by examining prominent American authors and literary works.

ADE 924 American Literature II (Variable)

0.05-3 Hours

Students will develop reading, writing, and speaking skills by examining prominent American authors and literary works

ADE 925 Advanced Literature (2-0)

2 Hours

This course will introduce students to three novels, each novel being one unit of study. Each unit will include vocabulary which will aid students in the understanding of the literature being read.

ADE 926 Science Fiction Literature (3-0)

3 Hours

This course will review stories of science fiction and fantasy emphasizing imagination and social and political satire.

ADE 927 Ancient Literature (3-0)

3 Hours

Students will explore the origins of literature including drama, Lyric poetry, and epics through readings from the Sumerian, Hebrew, Greek, Roman Persian, Arabic, and Asian literature.

ADE 928 Modern World Literature (3-0)

3 Hours

This course will introduce students to the literature of the Renaissance through the 21st Century through drama, poetry, fiction, and non-fiction. Emphasis will be on comparing literature to contemporary issues.

Course Information and Descriptions

ADE 929 Literature and Film (3-0) Students will critically examine and compare authors and filmmakers emphasizing the structures of literary and film analysis.	3 Hours	ADE 940 General Science (Variable) This course will provide an overview of general science concepts in biology, chemistry, earth science, and physics.	0.5-3 Hours
ADE 930 U. S. History through the Civil War (Variable) This course will examine the growth and development of the United States to the Civil War and Reconstruction. Exploration, colonization and economic growth through the Civil War and Reconstruction will be covered.	0.5-3 Hours	ADE 941 General Science II (Variable) General Science II is an extension of General Science I. In this course, students will study the plant and animal kingdoms, and human biology.	0.5-3 Hours
ADE 931 U. S. History Civil War to the Present (Variable) This course will cover the growth and development of the United States from the Civil War to the present. It will also focus on the development of urban America, growth of industry, effects on world trade, World Wars I and II, post-war growth and development and space exploration and the computer age.	0.5-3 Hours	ADE 942 Basic Biology I (3-0) This course will introduce students to the scientific method metrics and tools used by biologists to recognize the ecological importance of plants, animals, and proteins.	3 Hours
ADE 932 Current Affairs (3-0) This course will introduce students to world, national, state, and local affairs and how they influence today's United States of America and world society.	3 Hours	ADE 943 Basic Biology II (3-0) This course is a continuation of Basic Biology I continuing to focus on the ecological importance of plants, animals, and proteins.	3 Hours
ADE 933 Law in America (3-0) This course will introduce the student to the basic legal concepts that govern our society. This includes criminal, consumer, family and individual rights.	3 Hours	ADE 944 Environmental Science I (3-0) This course is an interdisciplinary study of ecological principles, human interaction, and cultural factors that shape environmental decisions.	3 Hours
ADE 934 Economics (3-0) This course will introduce students to the fundamental concepts of economics including scarcity, opportunity, cost supply and demand and the role of government, the market, and personal money management.	3 Hours	ADE 945 Environmental Science II (3-0) This course is a continuation of Environmental Science I. This interdisciplinary study of ecological principles, human interaction, and cultural factors that shape environmental decisions will focus on the biosphere, solar radiation, and ecosystem.	3 Hours
ADE 935 Social Problems (3-0) This course will introduce students to contemporary issues that affect today's society including family legal systems and culture.	3 Hours	ADE 946 Physics I (3-0) This course develops students' knowledge and understanding of basic physical phenomena and the use of mathematics to explain and predict these phenomena.	3 Hours
ADE 936 Government (3-0) This course will study the principles and practices of the United States Government with a major focus on the congress, presidency, judicial system, political parties, and election process.	3 Hours	ADE 947 Physics II (3-0) This course is a continuation of Physics I with a focus on the laws of motion and momentum and the conservation of energy.	3 Hours
ADE 937 Modern World History I (3-0) Modern World History I is a comprehensive study of Eastern and Western cultural developments, political trends, and the economic, social and technological issues and events that have shaped the modern world. Modern World History I begins with a review of ancient Asian societies and ends with the years just prior to World War II.	3 Hours	ADE 948 Geography I (3-0) This is an introductory survey course covering the human and physical geography of the world's major regions.	3 Hours
ADE 938 Modern World History II (3-0) Modern World History II is a continuation of Modern World History I. This course covers the study of Eastern and Western cultural developments, political trends, and the economic, social, and technological issues and events that have shaped the modern world. Modern World History II begins with World War II and concludes with a review of Southeast Asia from the mid-1900's to the start of the 21st century.	3 Hours	ADE 949 Geography II (3-0) This course is a continuation of Geography I covering the human and physical geography of the world's major regions.	3 Hours
ADE 939 Sociology (3-0) This course is an introduction to the study of human society and human social action/interaction, including those aspects of society that bind and divide people both as individuals and as members of various social groupings.	3 Hours	ADE 950 Consumer Education (2-0) This course is designed to cover the complex issues of budgeting, insurance, credit, taxation, home buying and care, investments and banking. It will also focus on problem solving and critical thinking skills.	2 Hours
		ADE 951 Family Life I (2-0) This independent study course is designed to give students insight into single, married, and family life.	2 Hours
		ADE 952 Health I (Variable) Health I is designed to introduce students to general health concepts in living. This course includes the study of consumer health; care of the body; nutrition; and the effects of drugs, smoking, and alcoholic beverages on behavior.	0.5-4 Hours

ADE 953 Family Life II (2-0)**2 Hours**

This course is an extension of Family Life I and is designed not only to give further insights into single, married and family life, but also to give students key ideas in how to make important life decisions and how to handle responsibility.

Course fee

ADE 954 Health II (Variable)**0.5-4 Hours**

Health II is an extension of Health I. This course includes the study of prevention of diseases; chronic health conditions; the environment and community health; accident prevention; family life education; and social health.

ADE 956 Personal Management (Variable)**0.5-4 Hours**

This course develops the skills necessary for independent living focusing on making positive choices in life in areas including personal growth, self management, career paths, personal relationships, and health.

ADE 957 Psychology II (2-0)**2 Hours**

Psychology II is an extension of Psychology I. The course is designed to give students an indepth study of the human mind and its mental processes.

ADE 958 Psychology I (2-0)**2 Hours**

Psychology I is a course designed to introduce students to the basic principles and applications of psychology.

ADE 960 Accounting Procedures I (2-0)**2 Hours**

This course is an introduction to the fundamentals of accounting as they apply to: the establishing of an accounting system for sole-proprietorships and partnerships, the recording of business transactions in a variety of journals and ledgers, and the preparation of financial statements for a fiscal period. Also included will be a refresher in business mathematics and those principles which apply to accounting.

ADE 962 Record Keeping (3-0)**3 Hours**

Record keeping is designed as an entry-level course introducing basic concepts for both business and personal finance as well as basic business records.

ADE 965 Keyboarding (Variable)**0.5-1.5 Hours**

This course is a continuation of keyboarding. It will review the proper posture and positioning for using a computer keyboard and mouse for accuracy and speed; create simple documents, save and retrieve files.

ADE 970 Writing Improvement I (3-0)**3 Hours**

This course will focus on the writing skills necessary in the working world. It will include grammar and punctuation, spelling, capitalization, and paragraph structure.

ADE 972 Writing I (3-0)**3 Hours**

This is designed to assist the student to communicate effectively in written English through the development of fundamental writing skills including the writing process, paragraphs, biography and autobiography, and essay.

ADE 973 Writing II (3-0)**3 Hours**

This is designed to assist the student to communicate effectively in written English through the development of fundamental writing skills including the writing process, paragraphs, formal and informal language, and short reports.

Prerequisite: ADE 972 or equivalent

ADE 974 Writing III (3-0)**3 Hours**

This is designed to assist the student to communicate effectively in written English through the development of fundamental writing skills including the writing process, paragraphs, summarizing and research papers.

Prerequisite: ADE 973 or equivalent

ADE 984 Introductory Statistics (3-0)**3 Hours**

This course is designed to introduce students to statistics as a mathematical discipline and to introduce tools used for collecting, organizing, analyzing, and drawing conclusions from data.

ADE 986 Child Development (3-0)**3 Hours**

This course is designed to review the social, cognitive, and emotional growth of a child from conception to adolescence.

ADE 992 Ceramics (3-0)**3 Hours**

This course will introduce students to making hand built and thrown objects from clay.

ADE 994 Graphic Technology (3-0)**3 Hours**

This course will introduce students to the graphic arts field. Students will use an elementary offset press to design graphic layouts.

ADE 996 Multimedia Productions (Variable)**3-6 Hours**

This course will introduce students to digital media. Students will design, create, store, and present original creations utilizing digital video and sound software, image composition software, web publishing, and storage media.

ANTHROPOLOGY (ANT)

Social Science Division, Room A244, (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. This course fulfills the CLC International/Multicultural Education requirement

Prerequisite: Language Proficiency

IAI: SI 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. This course fulfills the CLC International/Multicultural Education requirement

Prerequisite: Language Proficiency

IAI: SI 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.

Prerequisite: Language Proficiency

IAI: SI 902

Course Information and Descriptions

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.

Prerequisite: Language Proficiency

IAI: SI 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.

Prerequisite: Language Proficiency

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. This course fulfills the CLC International/Multicultural Education requirement

Prerequisite: Language Proficiency

IAI: SI 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.

Prerequisite: To be determined relative to topic

May be taken four times, but any topic only once

ARABIC (ARA)

Communication Arts, Humanities & Fine Arts Division, Room B210, (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.

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.

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.

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. This course fulfills the CLC International/Multicultural Education requirement

Prerequisite: ARA 221 (C or better) or Consent of Instructor

IAI: H1 900

ARCHITECTURAL TECHNOLOGY (ARC)

Engineering, Math & Physical Sciences Division, Room T102, (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.

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.

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course fee

Offered fall and spring only.

Course Information and Descriptions

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.

Prerequisite: ARC 121, CAD 117, and CAD 214 (all C or better)

Course fee

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.

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.

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.

Prerequisite: ARC 171 (C or better)

Course fee

Offered spring only.

Offered even years only.

ARC 216 Architectural Illustration (2-3) 3 Hours

Students will use Computer Aided Design (CAD) to create 2D illustrations and rendering of interiors and exterior of buildings to produce professional presentation quality drawings often termed "Artist's Conception."

Prerequisite: ARC 121

Course fee

Offered spring only.

Offered even years 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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: ARC 121, ARC 171 and CAD 117 (all C or better)

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.

Prerequisite: Language Proficiency

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.

Prerequisite: ARC 121

Course fee

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.

Course fee

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. May be taken four times, but any topic only once for credit towards the degree.

Prerequisite: To be determined relative to topic

ART (ART)

Communication Arts, Humanities & Fine Arts Division, Room B210, (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.

Prerequisite: Language Proficiency or Consent of Instructor

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,

Course Information and Descriptions

exploration, and discovery. *Note:* A museum visit will be required during the semester at student expense. See course syllabus for approximate cost.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency or Consent of Instructor

ART 123 Color and Design Techniques (0-6) 3 Hours

This studio course focuses on two dimensional design concepts, principles, and techniques, and is a continuation of ART 122. 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.

Prerequisite: ART 122

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.

Prerequisite: Language Proficiency or Consent of Instructor

ART 125 Art for Elementary Teachers I (0-4) 2 Hours

This course is 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. Students will gain practical experience in carrying out a series of techniques, teaching methods, and projects relating to the elements and principles of teaching art. *Note:* This course is primarily designed as a methods course for students who would wish to add art to their elementary education curriculum.

Prerequisite: Language Proficiency or Consent of Instructor

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.

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.

Prerequisite: ART 124

Offered fall and spring only.

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.

Prerequisite: Language Proficiency or Consent of Instructor

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.

Prerequisite: Language Proficiency or Consent of Instructor

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.

Prerequisite: Language Proficiency or Consent of Instructor

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.

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.

Prerequisite: ART 122

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.

Prerequisite: Language Proficiency or Consent of Instructor
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.

Prerequisite: Language Proficiency or Consent of Instructor
Course fee
Offered fall and spring only.

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.

Prerequisite: Language Proficiency or Consent of Instructor

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.

Prerequisite: ART 124
Course fee
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.

Prerequisite: Language Proficiency or Consent of Instructor
Course fee
Offered fall and spring only.

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.

Prerequisite: ART 224 or Consent of Instructor

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.

Prerequisite: Language Proficiency or Consent of Instructor
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.

Prerequisite: ART 129
Course fee
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.

Prerequisite: Language Proficiency
Offered fall only.
This course fulfills the CLC International/Multicultural 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, Amer-Indian/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.

Prerequisite: Language Proficiency
Offered spring only.
This course fulfills the CLC International/Multicultural Education requirement
IAI: F2 902

ART 242 History of Art III (3-0) 3 Hours

A survey of the schools, movements, and developments in the modern art of Europe and the United States from 1890 to the present. A brief survey of the art of Latin America and Asia will be included. *Note:* A museum visit will be required during the semester at student expense. See course syllabus for approximate cost.

Prerequisite: Language Proficiency
IAI: F2 902

ART 243 Introduction to Printmaking I (0-6) 3 Hours

An introduction to printmaking as a fine art. Execution of prints in relief, intaglio, lithography and silkscreen processes.

Prerequisite: ART 124
Course fee

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.

Prerequisite: ART 263

Course fee

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.

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.

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.

Prerequisite: ART 272 and ART 280

Course fee

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 soundwaves, 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.

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. This course may be repeated up to four times without repeating a given topic. *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.

Course fee

May be taken four times for credit toward degree

AUTOMOTIVE COLLISION REPAIR (ABR)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

ABR 110 Non-Structural Repair I (3-4) 5 Hours

The course will focus on the design and construction of the modern automobile. The identification of hand and power tools, as well as safety, will be examined. It will also introduce the student to the theory and the basic fundamentals of sheet metal and plastic repair. Classroom and hands-on experience is utilized.

Course fee

ABR 111 Non-Structural Repair II (3-4) 5 Hours

This course will focus on panel replacement and alignment methods. Removing interior and exterior trim and hardware. Removing and adjusting moveable glass. Trouble shooting power locks, windows, seats and lighting systems. Classroom and hands-on work will be emphasized. *Note:* Work Experience may be considered to meet the prerequisite.

Prerequisite: ABR 110 (C or better)

Course fee

ABR 115 Automotive Welding (2-2) 3 Hours

Welding is an important part of collision repair on a modern automobile. This course will cover the common types of welding, including aluminum welding that are used on automobiles. Classroom discussions and hands-on welding will prepare you to take the I-CAR Welding Certification test.

Course fee

ABR 130 Automotive Refinishing I (2-2) 3 Hours

This course will focus on paint safety and environmental practices. All current types of automotive finishing will be discussed. Students will learn proper surface preparation techniques and the operation of refinishing and mixing equipment. Classroom and hands on will be utilized.

Course fee

ABR 131 Automotive Refinishing II (3-4) 5 Hours

This course will focus on applying automotive finishes. The use of practice panels and live vehicles will be utilized for training. The course will also cover refinishing of plastics. Classroom and hands on will be utilized.

Prerequisite: ABR 130 (C or better)

Course fee

Course Information and Descriptions

ABR 133 Automotive Refinishing III (3-4) 5 Hours

This course will focus on applying color theory and tinting of automotive finishes. Blending techniques will also be covered. The course will conclude with "live work" on student and customer vehicles.

Prerequisite: ABR 131 (C or better)

Course fee

ABR 137 Automotive Mechanical Systems (3-4) 5 Hours

This course will cover basic understanding of steering systems, suspension systems, drive trains, and braking systems as they apply to a collision repair technician. Classroom lecture and lab will be utilized.

Course fee

ABR 138 Automotive Electrical Systems (3-4) 5 Hours

This course will provide students basic knowledge of air conditioning systems, cooling systems, fuel and exhaust systems, and automotive electronic systems as they apply to a collision repair technician. Classroom lecture and lab will be utilized.

Course fee

ABR 215 Automotive Detailing (2-2) 3 Hours

This course will focus on developing skills required to perform interior and exterior cleaning. The causes and cures of application problems, and finish defects will be discussed. The use of live vehicles and classroom will be used.

Course fee

ABR 230 Structural Repair I (2-2) 3 Hours

This course will focus on analysis structural damage, and determining a repair plan. Different types of measuring equipment will be discussed. This course will also cover corrosion protection, and restraint systems. Hands on and classroom will be utilized. *Note:* Completion of ABR 110 is highly recommended.

ABR 231 Structural Repair II (3-4) 5 Hours

This course will focus on the straightening of structural panels and replacement or sectioning of structural panels. Replacement methods of stationary glass will be discussed. Classroom theory and hands on will be utilized. *Note:* Completion of ABR 115 is highly recommended.

Prerequisite: ABR 230 (C or better)

ABR 235 Damage Analysis and Shop Procedures (2-2) 3 Hours

The course will focus on identifying types of damage on the vehicle, preparing a written analysis, and computerized analysis systems. The course will also include training on body shop management and operation. 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 lecture and lab are utilized. *Note:* Completion of ABR 110 is strongly recommended.

Course fee

AUTOMOTIVE TECHNOLOGY (AUT)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

AUT 170 General Automotive (4-0) 4 Hours

This course is designed for the student who is interested in gaining a greater knowledge of the major systems of the automobile. It will

cover the basic function of systems and the parts that make up each system, the common modes of failure and common repair procedures. This course will not include any work in the laboratory.

Note: This course is a survey course not intended for students who are seeking an automotive certificate or degree.

AUT 171 Engine Rebuilding (4-2) 5 Hours

Rebuilding of engines, including theory, diagnosis, measurement, light machining, and correct reassembly procedures. The lubrication, cooling, and fuel support systems are included. *Note:* The student will be required to provide their own basic tools.

Course fee

AUT 172 Auto Electrical I (4-2) 5 Hours

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:* The students will be required to provide their own basic tools.

Course fee

AUT 173 Auto Electrical II (4-2) 5 Hours

Theory of operation, diagnosis, and repair of body wiring, lighting circuits, accessories, gauges and body aligning. *Note:* The students will be required to provide their own basic tools.

Prerequisite: AUT 172 (C or better)

Course fee

AUT 174 Introduction to Automotive Technology (3-2) 4 Hours

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, etc.

Course fee

AUT 175 Braking Systems (4-2) 5 Hours

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.

Course fee

AUT 176 Suspension and Alignment (4-2) 5 Hours

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.

Course fee

AUT 215 Automotive Management (3-0) 3 Hours

Automotive business organization, service department management, and human relations aspect of management in areas of employer-employee relationships, customer-employee relations, and interdepartmental relations.

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.

AUT 271 Engine Performance I (4-2) 5 Hours

This course provides the student with an understanding of the principles of carburetion, exhaust systems, fuel delivery systems, ignition systems, and emission control systems. It also introduces electronic engine control systems. The focus of this course is on the generic functions of the systems and components. *Note:* Students will be required to provide their own basic tools.

Prerequisite: AUT 172 (C or better)

Course fee

AUT 272 Engine Performance II (4-2) 5 Hours

This course emphasizes the comprehensive diagnosis, testing, and service of fuel injection systems and ignition systems, including electronic engine control sensors and actuators and emission controls. Includes the basic operation of OBD-II (On Board Diagnostics). The focus of this course is on vehicle manufacturer specific systems and components. *Note:* Students will be required to provide their own basic tools.

Prerequisite: AUT 271 (C or better)

Course fee

AUT 273 Manual Drive Train and Axles (4-2) 5 Hours

This course focuses on the repair and overhaul of manual transmissions, transaxles and drive line components. Theory 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

Course fee

AUT 274 Automatic Transmission and Trans Axles (4-2) 5 Hours

This course focuses on the repair and overhaul of automatic transmissions. Theory 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.

Prerequisite: AUT 172 (C or better)

Course fee

AUT 275 Air Conditioning and Heating (4-2) 5 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.

Prerequisite: AUT 172 (C or better)

Course fee

AUT 276 Engine Systems Diagnosis (4-2) 5 Hours

This course gives the automotive technician 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.

Prerequisite: AUT 173 (C or better)

Corequisite: AUT 272

Course fee

AUT 277 Advanced Specialization (2-6) 5 Hours

This course 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.

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

BIOLOGY (BIO)

Biological & Health Sciences Division,
Room C140, (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.

Prerequisite: Language Proficiency

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 (approximately ½) 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.

Prerequisite: Language Proficiency 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.).

Prerequisites: MTH 102 (C or better) or an appropriate score on the Math Placement Test - AND - Language Proficiency

Course fee

IAI: L1 900L

Course Information and Descriptions

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. May be taken three times for credit toward a degree or certificate, but any topic only once. *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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course fee

May be taken three times for credit toward degree

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.

Prerequisite: Language Proficiency 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. *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.

Prerequisite: Language Proficiency 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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course fee

IAI: L1 900L

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

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. This course replaces BIO 121.

Prerequisites: MTH 108 (C or better) or an appropriate score on the Math Placement Test - AND - Language Proficiency.

Course fee

IAI: L1900L, BIO910

BIO 162 General Biology II (3-3) 4 Hours

This course examines the following areas of biology: ecology, evolution, systematics, biological diversity, and development. 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. *Note:* This course replaces BIO 122.

Prerequisite: BIO 161(formerly BIO 121) (C or better)

Course fee

IAI: BIO 910

BIO 211 Laboratory Techniques for the Bio-Technician (2-6) 5 Hours

This course examines laboratory procedures concerned with preparation and separation of materials, analysis of experiments, identification of biological materials, and lab instrumentation. Some of the more sophisticated lab procedures used by local industry are presented. The application of computers to biological phenomena is included.

Prerequisite: CHM 121 or BIO 125 (both C or better) or consent of instructor

Course fee

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.

Prerequisite: BIO 161(formerly BIO 121) (C or better)

Course fee

BIO 222 General Botany (2-4) 4 Hours

This course is a comparative study of plant life, from algae through the flowering plants, and fungi. Morphology, ecology, and evolution will be stressed with some identification and collection of local flora.

Prerequisite: BIO 120, BIO 123, BIO 161 or HRT 111 (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.

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.

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.

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.

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

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.

Course fee

May be taken four times for credit toward degree

BUSINESS ADMINISTRATION (BUS)

Business Division, Room T102, (847) 543-2041

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.

Prerequisite: ACC 112 or higher ACC course

Offered fall only

BUS 113 Human Resource Management (3-0)**3 Hours**

Personnel functions, wage systems, incentives, fringe benefits, cost budgeting, policy implementation, leadership styles, and disciplinary procedures.

Prerequisite: Language Proficiency

BUS 115 Elements of Supervision (3-0)**3 Hours**

Introduction of responsibility of supervisor in industry, including organizational duties, grievances, human relations, training, rating, promotion, quality-quantity control, and management-employee relations.

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.

Prerequisite: Language Proficiency

BUS 121 Introduction to Business (3-0)**3 Hours**

This course provides a broad overview of the principles and functions of business. Topics included are: management, marketing, global business practices, finance, human resource management, accounting and business law.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

BUS 131 Entrepreneurship (3-0)**3 Hours**

This course will focus on the concepts and tools related to the development of new entrepreneurial ventures. This course is about the actual process of getting a new venture started, 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, know-how, experience, attitudes, resources, and networks are required to pursue different entrepreneurial opportunities.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Recommended: BUS 121

Offered Spring Only

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.

Prerequisite: BUS 121 or BUS 122

Offered Fall Only

Course Information and Descriptions

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.

Prerequisite: BUS 121

Offered Fall Only

BUS 214 Advertising (3-0) 3 Hours

This course provides an understanding of advertising in the promotional mix of the business firm. Principles and practices of promotional research, media selection, copyrighting, layout, budgeting and the legal aspects of advertising and promotion will be covered. Students will develop an advertising campaign for a single product, service or small business.

Prerequisite: BUS 121

Offered Spring Only

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.

Prerequisite: Basic Algebra Readiness and BUS 121

Offered spring only.

BUS 219 Small Business Management (3-0) 3 Hours

This course deals with 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 ongoing business. 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.

Prerequisite: BUS 121

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.

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.

Prerequisite: PLS 110 or BUS 221

BUS 223 Principles of Management (3-0) 3 Hours

The functions, skills, and roles played by managers in a variety of organizations. Emphasis on planning, organizing, leading, and controlling to reach desired objectives.

Prerequisite: BUS 121

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.

Prerequisite: AOS 111 or ENG 121

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness
Recommended: BUS 121

BUS 270 Introduction to Global Business (3-0) 3 Hours

This course provides an overview of the field of international business, with an emphasis on international marketing and corresponding instruction in international finance, cultural diversity, economic systems and political environments. The course deals in depth with specific countries and explores methods of doing business in each.

Prerequisite: BUS 121

BUS 290 Business Plan Development (3-0) 3 Hours

This capstone course not only utilizes the information learned in the courses required for the Small Business Management Certificate, it also provides the opportunity for the student to prepare a business plan. Additional material on taxes, interpersonal skills, customer service, Small Business Administration services, and related small business issues will be presented to ready the student to enter the world of small business.

Prerequisites: BUS 121 and either (BUS 219 or permission of instructor)

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.

May be taken four times for credit toward degree

CHEMISTRY (CHM)

Biological & Health Sciences Division,
Room C140, (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.

Prerequisites: MTH 102 (C or better) or an appropriate score on the Math Placement Test - AND - Language Proficiency

Course fee

IAI: PI 902L

CHM 121 General Chemistry I (3-4) 5 Hours

Designed to develop an analytical approach to physical problems. Provides the student with a basic understanding of the underlying principles of structure, energy, and reactivity and introduces the student to the topics of stoichiometry, gas laws, thermochemistry, atomic structure, periodicity, molecular geometry, and states of matter. *Prerequisites:* MTH 108 (C or better) or an appropriate score on the Math Placement Test - AND - Language Proficiency.

Course fee

IAI: PI 902L, CHM 911

CHM 123 General Chemistry II (3-4) 5 Hours

Presents some of the topics presented in CHM 121 in more detail. Introduces the topics of solutions, equilibria, kinetics, acids and bases, solubility, thermodynamics, and electrochemistry. Includes introductory work in qualitative analysis.

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.

Prerequisite: CHM 121 (C or better)

Course fee

CHM 140 Chemistry for a Changing World (3-0) 3 Hours

Course is intended for non-science students seeking general education credit in a physical science course without a laboratory. 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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

IAI: PI 903

CHM 142 Chemistry for a Changing World-LAB (3-2) 4 Hours

Course is intended for non-science students seeking general education credit in a physical science course with a laboratory component. 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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course fee

IAI: PI 903L

CHM 221 Analytical Chemistry (3-4) 5 Hours

Introduces the fundamental concepts associated with gravimetric, volumetric, and instrumental methods of analysis. Lab time is divided evenly between traditional quantitative analysis and modern instrumental analysis.

Prerequisite: CHM 123 (C or better)

Course fee

CHM 222 Organic Chemistry I (3-4) 5 Hours

Provides an understanding of the theoretical concepts and experimental techniques related to the chemistry of carbon compounds. Topics include an overview of nomenclature, acid-base systems, all classes of saturated and unsaturated hydrocarbons, alkyl halides, stereochemistry, and major substitution, addition, and elimination reaction mechanisms. Covers basic laboratory techniques involving separation, identification, and synthesis of organic compounds.

Prerequisite: CHM 123 (C or better)

Course fee

IAI: CHM 913

CHM 223 Organic Chemistry II (3-4) 5 Hours

Presents fundamental principles of organic chemistry stressing the preparation, reactions, mechanisms, and structure of organic compounds. Topics include spectroscopy, functional groups, carbanion condensation, reactions, and polymers. Introduces concepts of carbohydrates, lipids, and proteins.

Prerequisite: CHM 222 (C or better)

Course fee

IAI: CHM 914

CHINESE (CHI)

Communication Arts, Humanities &
Fine Arts Division, Room B210, (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.

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.

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.

Course Information and Descriptions

CHI 222 Intermediate Chinese II (4-0) 4 Hours

This course is the second semester of one year of continuing study for beginning Chinese learners who have studied Book I, II, and III, 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.

Prerequisite: CHI 221

This course fulfills the CLC International/Multicultural Education requirement

IAI: H1 900

CISCO NETWORKING (CNA)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

CNA 111 Cisco Networking I (2-2) 3 Hours

This is a first course in the Cisco Networking Academy sequence of four courses. This course will introduce networking and general network concepts and build the fundamental laboratory skills in wiring and testing. The course will introduce the seven layers of OSI model and the concepts involved with routing and routing protocols. Delivery is via Internet from the Cisco servers and supplementary lecture. Assessment for the on-line material is via the Internet on the Cisco servers. Laboratories and some assessment are done in class as well as the delivery of supplemental material. The student is expected to spend 8-10 hours a week outside of class with the online material outside of scheduled class time.

Course fee

CNA 112 Cisco Networking II (2-2) 3 Hours

This is the second Cisco Networking Academy course and will extend the OSI layer concepts. The course will concentrate on routing and will deal with routers, routing and router configuration using IOS to program routers. Routers will be physically configured between networks and programmed during laboratories. IOS, TCP/IP and IP addressing will be studied. The course is partially online and the student will be expected to spend 8-10 hours a week with the online material outside of scheduled class time.

Prerequisite: CNA 111

Course fee

CNA 113 Cisco Networking III (2-2) 3 Hours

This is the third course in the Cisco Networking Academy program. The course will concentrate on networking switching and more advanced routing concepts. The course will use the Cisco online materials outside of the scheduled class time but all assessments will be done during scheduled classes. Lectures over selected subjects and laboratories will be done during class time and the threaded case study will be completed for a LAN. Engineering journals will be kept along with other reference materials. The class is partially online and the student will be expected to spend 8-10 hours a week outside of scheduled class time with the online material.

Prerequisite: CNA 112

Course fee

CNA 114 Cisco Networking IV (2-2) 3 Hours

This is the fourth and final semester of the Cisco Networking Academy program. This semester will deal with Wide Area Networks (WANs) and the protocols and services used in constructing WANs. Point to Point protocols will be studied as well as ISDN. Frame Relay will be investigated as applied to network routing and laboratories will be done where applicable. The threaded case study for a WAN will be completed and presented. The student

will be expected to spend 8-10 hours a week outside of scheduled class times for online material and the case study.

Prerequisite: CNA 113

Course fee

CNA 116 Cisco Router Security (2-2) 3 Hours

This course is part of the Cisco Networking Academy. This course is designed to focus on the overall security processes based on a security policy with an emphasis on hands-on-skills in the areas of secure perimeter, secure connectivity, security management, identity services, and intrusion detection. Curriculum delivery is via the Internet from the Cisco servers and supplementary lectures. The majority of class time will be devoted to laboratory practical experience with Cisco routers.

Prerequisite: CNA 114 or CCNA certification

CNA 117 Cisco PIX Security (2-2) 3 Hours

This course is part of the Cisco Networking Academy. This course is designed to focus on the overall security processes based on a security policy with an emphasis on hands-on-skills in the areas of secure perimeter, secure connectivity, security management, identity services, and intrusion detection. Curriculum delivery is via the Internet from the Cisco servers and supplementary lectures. The majority of class time will be devoted to laboratory practical experience with Cisco PIX security appliances. This course is part of the Cisco Networking Academy. This course is designed to focus on the overall security processes based on a security policy with an emphasis on hands-on-skills in the areas of secure perimeter, secure connectivity, security management, identity services, and intrusion detection. Curriculum delivery is via the Internet from the Cisco servers and supplementary lectures. The majority of class time will be devoted to laboratory practical experience with Cisco routers.

Prerequisite: CNA 116

CIVIL AND ENVIRONMENTAL TECHNOLOGY (CIV)

Engineering, Math & Physical Sciences Division,
Room T102, (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.

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

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.

Prerequisite: Language Proficiency

Offered fall only.

CIV 131 GIS/GPS Applications for Civil and Surveying Technology (2-2) 3 Hours

This course provides an introduction to Geographic Information Systems with a focus on civil engineering and surveying applications. Students will be introduced to Global Positioning System technology as a means of collecting surveying data. The laboratory session will introduce students to ArcView software and GPS data collection techniques. The two technologies will be merged in a project-based environment to create a simple GIS database using field data collected with GPS technology.

Prerequisite: Language Proficiency and Basic Algebra Readiness
Offered spring only.

CIV 211 Land Surveying (2-4) 4 Hours

This course covers survey theory and process of land surveying, including development of the United States Rectangular System, boundary and retracement surveys, basic survey law, American Land Title Association (ALTA) requirements, subdivision requirements, Illinois minimum standards, legal descriptions, field monument search and related computations. *Note:* Offered spring of odd years, alternating with CIV 216.

Prerequisite: CIV 111

Recommended: Knowledge of basic AutoCAD or CMT 115

Course fee

CIV 213 Site Planning and Design (2-2) 3 Hours

This course prepares civil technicians to perform basic site design tasks, including developing site planning criteria, geometry of curvature and elevation of local streets, basic storm sewer design, and fundamentals of sanitary sewer and water main design. Emphasis is placed on the design process starting from field notes through preparation of construction drawings and material take-off list.

Prerequisites: CAD 177, Language Proficiency and Basic Algebra Readiness.

Recommended: EGR 121 and MTH 117

Course fee

Offered spring only, even years 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.

Course fee

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

CIV 216 Civil Surveying (2-4) 4 Hours

This course examines surveying theory and process of control surveying, global positioning systems, and state-plane coordinate systems. Surveying theory and process for Civil Engineering projects, topographic surveys, Illinois minimum standards, easements, and related computations are covered.

Prerequisite: CIV 111

Recommended: Knowledge of basic AutoCAD or CMT 114

COMMUNICATION (CMM)

Communication Arts, Humanities & Fine Arts Division, Room B210, (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.

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

This course fulfills the CLC International/Multicultural 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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

COMPUTER AIDED DESIGN (CAD)

Engineering, Math & Physical Sciences Division,
Room T102, (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).

Prerequisite: Language Proficiency or consent of instructor

Course fee

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.

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.

Course fee

Offered spring only

CAD 173 Introduction to SolidWorks (2-2) 3 Hours

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.

Course fee

CAD 174 SolidWorks II (2-2) 3 Hours

The course is designed as a continuation of CAD 173 Introduction to SolidWorks. It expands the topics started in CAD 173. It also covers sheet metal part creation, basic mold design and importing files from other CAD programs.

Prerequisite: CAD 173

Course fee

Offered fall only.

CAD 176 Introduction to Pro-Engineer (2-2) 3 Hours

Designed as an introduction to the PRO-Engineer 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.

Course fee

Offered fall only

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.

Prerequisites: CAD 117 or EGR 121 or ARC 121 or consent of instructor

Course fee

Offered spring only.

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.

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 Y14.5-2009 Standard.

Prerequisite: CAD 171 or CAD 173 or CAD 176

Course fee

Offered spring only.

CAD 214 Introduction to Revit (2-2) 3 Hours

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.

Course fee

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.

Prerequisite: CAD 117 or EGR 121 or ARC 121

Course fee

Offered spring only.

CAD 271 Inventor II (2-2) 3 Hours

This course is designed as a continuation of CAD 171, Introduction to Inventor. It expands the topics started in CAD 171. It also covers sheet metal parts, border and title block creation, toolbar and command customization. Integration with 3D Studio Max and the importing/exporting of files from/to other CAD programs.

Prerequisite: CAD 171

Course fee

Offered even year 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.

Course fee

CAD 276 Pro-Engineer II (2-2) 3 Hours

The course is designed as a continuation of CAD 176. It expands the topics started in Introduction to Pro-Engineer. It covers advanced assemblies and part creation and an introduction to Mechanica.

Prerequisite: CAD 176

Course fee

Offered odd year only.

CAD 279 Autodesk 3dsMax II (2-2) 3 Hours

Designed as a continuation of CAD 179, Introduction to Autodesk 3ds Max, and includes NURBS, advanced modeling and modifiers, advanced materials, special effects, animation controllers, kinematics, MAX scripting, architectural applications, scene output.

Prerequisite: CAD 179

Course fee

Offered fall only.

COMPUTER AIDED DESIGN - DRAFTING APPLICATIONS (CDA)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

CDA 111 CAD Drafting Applications I (3-2) 4 Hours

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 included are: geometric constructions, multiviews, sections, dimensioning and tolerancing along with pictorial views.

Course fee

Offered fall only.

CDA 112 CAD Drafting Applications II (2-2) 3 Hours

A continuation of CAD Drafting Applications I. Computer aided design skills are advanced through exploration of auxiliary views, developments, working drawings and descriptive geometry. *Note:* Completion or concurrent enrollment in CAD117 or previous experience in AutoCAD is strongly recommended.

Prerequisite: CDA 111 or DFT 111 or EGR 121

Course fee

Offered spring only.

COMPUTER INFORMATION TECHNOLOGY (CIT)

Business Division, Room T102, (847) 543-2041

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course fee

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.

Prerequisite: Language Proficiency

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.

Prerequisite: CIT 112 (Previously CIS 230) - AND - a CIT programming course or a passing score on the Programming Placement Test

Course fee

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course fee

Course Information and Descriptions

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course fee

IAI: BUS 902, AG 913

CIT 130 Operating Systems for A+ Certification (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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course fee

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.

Prerequisite: Language Proficiency 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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course fee

CIT 134 Programming Concepts Using Visual Basic (3-0) 3 Hours

This course introduces structured programming using the Visual Basic programming language to demonstrate and reinforce programming concepts and techniques. 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 of sequential files. This course is a CIT core prerequisite and is required before taking a second level programming course. *Note:* Both CIT 134 and CIT 136 cover programming logic concepts needed for higher-level programming classes. Students should not take both courses, as most topics are duplicated. Students who choose to take both of these courses will only have one course applied towards a degree or certificate. This course cannot be used as a CIT elective.

Corequisite: CIT 120 or passing score on the Introduction to Computers Placement Test

Course fee

CIT 135 Introduction to Visual Basic Programming (3-0) 3 Hours

This course introduces the student to the Visual Basic programming language. Students will create Graphical User Interface (GUI) applications by building 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 Visual Basic. The classes and objects of the .NET framework will be integrated into the building of the students' Visual Basic applications. A number of simple application examples will be used to gain debugging experience in addition to developing original applications.

Prerequisite: CIT 134 or CIT 136 or a CIT programming course or a passing score on the Programming Placement Test

Course fee

CIT 136 Programming Concepts Using Java (3-0) 3 Hours

This course introduces structured programming using the Java programming language to demonstrate and reinforce programming concepts and techniques. 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, methods, arrays, and processing of sequential files. This course is a CIT core prerequisite and is required before taking a second level programming course. *Note:* Both CIT 134 and CIT 136 cover programming logic concepts needed for higher-level programming classes. Students should not take both courses, as most topics are duplicated. Students who choose to take both of these courses will only have one course applied towards a degree or certificate. This course cannot be used as a CIT elective.

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.

Prerequisite: CIT 134 or CIT 136 or a CIT programming course or a passing score on the Programming Placement Test

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.

Prerequisite: CIT 134 or CIT 136 or a CIT programming course or a passing score on the Programming Placement Test

Course fee

IAI: CS 911

CIT 150	Introduction to Local Area Networking (3-0)	3 Hours		
An introductory course designed to provide a practical and comprehensive working knowledge of Data Communications and Local Area Networks (LANs). Included will be typical LAN business applications, topologies, standards, and communication protocols, as well as network operating systems, servers, cables, and network management. This course also includes IP addressing, routing, IP, ICMP, ARP, TCP, UDP, DHCP, DNS, HTTP, FTP, SMTP and IPV6. Protocol analyzers will be used to monitor and examine network traffic.				
<i>Corequisite:</i> CIT 120 or passing score on the Introduction to Computers Placement Test				
CIT 151	LAN Administration (3-0)			
3 Hours				
This course addresses the basics of System Administration. The course covers: establishing and maintaining network users, directories and security; monitoring and administering a network through the use of file server utilities; setting up and managing network printing; and maintaining a backup of all files, security, and rights.				
<i>Prerequisites:</i> CIT 131 and CIT 150				
<i>Course fee</i>				
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.				
<i>Prerequisites:</i> CIT 131 and CIT 150				
<i>Course fee</i>				
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.				
<i>Prerequisite:</i> Language Proficiency				
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.				
<i>Prerequisites:</i> CIT 131 or CIT 132				
<i>Course fee</i>				
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.				
<i>Prerequisite:</i> Language Proficiency				
<i>Course fee</i>				
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.				
<i>Prerequisite:</i> CIT 170 or DMD 116				
<i>Course fee</i>				
CIT 172	E-Commerce Implementation and Impact (3-0)			
3 Hours				
This course is aimed at helping today's computer students with the knowledge of the networked economy necessary to become successful employees and managers. The networked economy will be built on producing services by leveraging human knowledge with computers and connectivity, and will be characterized by rapidly changing market conditions and methods of commerce. This course will introduce electronic commerce strategy and technology, providing students with an understanding of the "what" and "how" of electronic commerce.				
<i>Prerequisite:</i> CIT 120 or AOS 112 or passing score on the Introduction to Computers Placement Test				
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.				
<i>Prerequisite:</i> CIT 170 or DMD 116				
<i>Course fee</i>				
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.				
<i>Prerequisite:</i> Language Proficiency				
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.				
<i>Prerequisite:</i> Language Proficiency and Basic Algebra Readiness				
<i>Course fee</i>				

Course Information and Descriptions

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.

Prerequisite: CIT 176

Course fee

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.

Prerequisite: CIT 111

Course fee

CIT 211 Project Management Software (3-0) 3 Hours

This course provides an overview of the discipline of project management and incorporates the use of a current version of project management software to demonstrate to students how projects can be managed more effectively. Students will use the software to master the project cycle steps of starting, developing, and implementing a plan. Topics presented in the course include:

defining resources; scheduling; resolving conflicts; tracking and analyzing progress; adjusting to changes and unforeseen events; reporting in print and on the Web; and managing project portfolios.

Note: The material presented in this course is applicable to project management in any industry. Content of this course will apply to industries where projects need to be documented and managed.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course fee

CIT 212 Oracle Database Administration I (3-0) 3 Hours

This course is designed to give the student a solid foundation in the administrative tasks performed by a database administrator. Using Oracle administration tools, the student will learn how to design, create, maintain, effectively manage, startup and shutdown, and troubleshoot an Oracle database. The student will gain a conceptual understanding of the Oracle database architecture and how its components work and interact with one another. In addition, the student learns how to organize a database and how to move data into and between databases under different environments. This class prepares the student for the Oracle Database Administrator Certified Associate (OCA) certification exam.

Prerequisite: CIT 113

Course fee

CIT 213 Oracle Database Administration II (3-0) 3 Hours

This course continues developing the knowledge needed to perform the tasks of a database administrator. Topics include methods to backup, restore, and recover the database given various different scenarios; transporting data between databases using Oracle database utilities; networking concepts and configuration parameters; solving common network problems; and configuring network parameters to

allow the database clients to communicate with the database server.

This class prepares the student for the Oracle Database Administrator Certified Professional (OCP) certification exam.

Prerequisite: CIT 212

Course fee

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. This course builds upon CIT 132 Linux Operating System, which is a prerequisite.

Prerequisites: CIT 132

Course fee

CIT 233 Programming in Visual C++ (3-0) 3 Hours

This course extends the advanced features of C++ language into the realm of managed C++ in .NET development. The benefits of managed C++ will be explained and its modifications over the unmanaged C++ will be discussed in detail, including arrays and collections, operator overloading, inheritance, and exception handling. Students will also use the .NET framework class library to develop window applications and web services, produce graphic output and access databases.

Prerequisite: CIT 141

Course fee

CIT 234 Objects and Components Using Visual Basic (3-0) 3 Hours

This course provides students with knowledge of Visual Basic's use of objects and components. It expands the concepts of classes and objects and their use in building components and services. Students will create their own controls and components. These controls and components will then be used in implementing a multi-tiered application. The course will show how the user interface can be implemented either as a window form or as an equivalent web form and not change the business services or data services objects. The student will learn how to integrate these .NET managed code objects with objects created using Microsoft Component Object model. Object Oriented Design will be discussed and then used to implement business applications that use interface, business and utility objects.

Prerequisite: CIT 135

Course fee

CIT 235 Enterprise Database Access Using Visual Basic (3-0) 3 Hours

This course provides students with knowledge of using Visual Basic to interact with enterprise databases. It examines the various ways of accessing data in databases and external files such as ADO.NET and XML. It explores the principles of databases and the use of the Structured Query Language (SQL) to provide access to the data. Data grids, data controls and data bound controls will be used with the various access technologies provided by Visual Basic. The student will also learn how to set up an Internet database application. Besides using MS Access databases, the student will build and access SQL server databases and access Oracle databases.

Prerequisite: CIT 234 and CIT 112

Course fee

CIT 236 Programming Using JavaBeans (3-0) 3 Hours

This course will focus on JavaBeans. Rapid Application Development (RAD) techniques in some current Java IDE will be developed. Most of the time will be spent designing and programming using JavaBeans emphasizing code reuse. The reflections and introspection features will form an important basis of this study. Students will customize several "Beans" of their own.

Most of the Java Foundation Class will be investigated.

Prerequisite: CIT 137

Course fee

CIT 237 Enterprise Java Development (3-0) 3 Hours

This course takes JavaBeans to the higher level of an enterprise system for distributed systems across multiple platforms. Remote Method Invocation (RMI), Enterprise Java Beans (EJB), Java Naming and Directory Interface (JNDI), servlets, Java Server Pages (JSP) and security will be major topics. The Internationalization API will be investigated. Students will write n-tier applications and be able to program in the IDL language. Some time will be spent on CORBA and JDBC standards. XML for data transfer will also be studied.

Prerequisite: CIT 137

Course fee

CIT 238 C# Programming (3-0) 3 Hours

This course will examine the C# programming language and its relationship to the .NET environment. It will cover creating C# application programs using console, window forms, and web forms. The student will work with ADO.NET databases, program ASP.NET modules, and manipulate XML. The user will examine how components from multiple programming languages within the .NET managed code arena can be combined seamlessly. Older components using COM will also be integrated with managed code written in C#. *Prerequisite:* CIT 135, CIT 137, CIT 141 or higher level object oriented programming language.

Course fee

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.

Prerequisite: CIT 135 or CIT 137 or CIT 141, or CIT 170 or higher level object oriented programming language

Course fee

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.

Prerequisite: CIT 141

Course fee

IAI: CS 912

CIT 250 Advanced LAN Administration (3-0) 3 Hours

In this course students learn: implementing routing; implementing, managing, and maintaining DHCP, DNS, and WINS; securing IP traffic with IPSec and certificates, remote access, and monitoring network access. This is the fourth course in the Systems Administrator and Systems Engineer track for Windows Server, and it is the final course in the Systems Administrator track.

Prerequisites: CIT 131 and CIT 151

Course fee

CIT 251 Implementing and Administering Security in Windows (3-0) 3 Hours

This course covers the essential elements for implementing and administering security in medium to very large computing environments. This course will use Windows 2000 and Active Directory® Operating systems, and other current Windows operating systems. Client computers might include Windows NT® Workstation 4.0, Windows 2000 Professional, Windows XP Professional, and other current Windows operating systems. Other IT professionals may also take this course on the path to become a security specialist. This course will prepare the student for the last exam for MCSA Security certification 70-214.

Prerequisite: CIT 151 and CIT 250

Course fee

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).

Prerequisites: CIT 151 or CIT 230 (C or better), and CIT 152 (C or better) or instructor consent.

Course fee

CIT 253 Network Defense and Countermeasures (3-0) 3 Hours

This course provides students with hands-on experience with installing firewalls and intrusion detection systems. The course covers essentials of a security policy and implementation by using Network Address Translation (NAT) and packet filtering. The student will learn how to install proxy servers, firewalls, and Virtual Private Networks (VPNs). This is one of the courses in a two-course series to prepare students for the industry-recognized Security Certified Network Professional Certification (SCNP).

Prerequisites: CIT 151 or CIT 230 (C or better), and CIT 152 (C or better) or instructor consent.

Course fee

Course Information and Descriptions

CIT 256 Advanced Digital Evidence Recovery (2-2) 3 Hours

This course is designed to provide students with the knowledge and skills to master second-level Computer Forensics topics. Areas addressed in this course include the NTFS file system, Linux file system, recovering sub-directory structures, recovering data from file slack and unallocated space, recovering data from special system files, finding hidden data, unlocking passwords, accessing metadata in Office documents, handling and documenting evidence, and performing a practical forensics examination.. 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 and recovering data will be included as part of the class curriculum.

Prerequisites: CIT 156

Course fee

CIT 257 Analysis of Digital Media (3-0) 3 Hours

This course is designed to provide students with the knowledge and skills to master advanced computer forensics topics. Areas addressed in this course include evaluating computer evidence, correlating disparate data in forming conclusions, network considerations, report writing, and defending findings and conclusions. Special emphasis will be given to the forensic analysis of Microsoft Windows and Linux operating systems as they pertain to computer and network forensic investigations. Practical exercises on analysis and report writing computer forensic results will be included as part of the class curriculum.

Prerequisites: CIT 256

Course fee

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.

Prerequisite: CIT 150 and CIT 256

Course fee

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.

Prerequisite: To be determined relative to topic

Course fee

May be taken four times for credit toward degree

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.

Prerequisites: CIT 171 and CIT 113

Course fee

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

Prerequisites: CIT 170 and CIT 112

Course fee

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.

Prerequisite: CIT 177 and MTH 122

Recommended: CIT 141 or other programming class

Course fee

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.

Prerequisite: CIT 177 and CIT 241

Course fee

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.

Course fee

May be taken four times, but any topic only once

COMPUTERIZED NUMERICAL CONTROL (CNC)

Engineering, Math & Physical Sciences Division,
Room T102, (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.

Course fee

Offered fall and spring only.

Course Information and Descriptions

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.

Prerequisite: Basic Algebra Readiness

Recommended: MTT 110 (C or better) or EGR 121 (C or better) or equivalent experience

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.

Course fee

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.

Prerequisite: CNC 110

Course fee

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.

Prerequisite: CNC 115

Course fee

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.

Prerequisite: CNC 115

Course fee

Offered fall only.

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.

Prerequisites: CNC 110 and CNC 115

Course fee

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.

Prerequisites: CNC 115 or MTT 112 -AND - CAD 117

Course fee

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.

Prerequisites: CNC 215 or CNC 216 and MTH 117

Course fee

Offered fall and spring only.

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.

Prerequisite: CNC 218 or Instructor Consent

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.

Prerequisite: CNC 110 and CNC 218 (both with C or better); AND CAD 117 or CAD 171 or CAD 176 or CAD 173 (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.

Prerequisite: To be determined relative to topic

CONSTRUCTION MANAGEMENT TECHNOLOGY (CMT)

Engineering, Math & Physical Sciences Division,
Room T102, (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.

Course Information and Descriptions

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. <i>Note:</i> MTH 117 or equivalent is highly recommended. <i>Prerequisite:</i> Language Proficiency and Basic Algebra Readiness <i>Course fee</i> <i>Offered summer only.</i>	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. <i>Prerequisite:</i> Language Proficiency and Basic Algebra Readiness Recommended: MTH 117 (C or better) <i>Offered spring only.</i>
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. <i>Note:</i> Students enrolled in the CMT program should take this course in their first semester of study. <i>Prerequisite:</i> Language Proficiency and Basic Algebra Readiness	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. <i>Prerequisite:</i> Language Proficiency and Basic Algebra Readiness Recommended: ENG 120 as a corequisite; completion of CMT 112 or equivalent experience is highly recommended prior to taking this course. <i>Offered spring only.</i>
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. <i>Prerequisite:</i> Language Proficiency and Basic Algebra Readiness <i>Course fee</i> <i>Offered fall only.</i>	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. <i>Prerequisite:</i> Language Proficiency 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. <i>Course fee</i> <i>Offered spring only.</i>
CMT 114 Introduction to AEC Computer Applications (2-0) 2 Hours This course introduces students to the important computer applications frequently used in construction management, civil technology, and architecture. Includes an introduction to the following: using the internet for research, MS Outlook, library databases, email, MS Word, MS Excel, AutoCAD, MS Project, and document imaging. <i>Prerequisite:</i> Language Proficiency <i>Course fee</i>	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. <i>Prerequisite:</i> Language Proficiency and Basic Algebra Readiness <i>Offered fall only.</i>
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. <i>Prerequisite:</i> Basic Algebra Readiness <i>Course fee</i>	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. <i>Prerequisite:</i> Language Proficiency and Basic Algebra Readiness Recommended: CMT 112 or equivalent construction experience as well as completion of 30 hours or more in the CMT curriculum <i>Offered fall only.</i>
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. <i>Prerequisite:</i> CMT 115 <i>Course fee</i>	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. <i>Prerequisite:</i> Language Proficiency 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. <i>Course fee</i> <i>Offered fall only.</i>
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. <i>Prerequisite:</i> Language Proficiency and Basic Algebra Readiness <i>Course fee</i> <i>Offered spring only.</i>	

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.

Prerequisite: CMT 113, CMT 114, and CMT 117 (all C or better), Language Proficiency and Basic Algebra Readiness.

Recommended: At least 30 hours completed in CMT curriculum and CMT 211 (C or better) OR equivalent construction experience.

Offered spring only.

CMT 217 Green Construction Practices and Project Rating Systems (3-0) 3 Hours

This course introduces students to the green building construction practices and green/sustainable project rating systems.

The United States Green Building Council's(USGBC)LEED program is used as a reference.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Recommended: At least 30 hours completed in CMT, ARC, HRT, EET, or RAC degree program OR equivalent industry experience.

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.

May be taken four times for credit toward degree

COOPERATIVE EDUCATION (EWE)

Cooperative Education Office, Building E,
Room E101, (847) 543-2058

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.

EWE 220 Cooperative Work Experience I (Variable) 1-4 Hours

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.

May be taken four times for credit toward degree

EWE 270 Cooperative Work Experience II (Variable) 1-3 Hours

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.

CRIMINAL JUSTICE (CRJ)

Social Science Division, Room A244, (847) 543-2047

CRJ 117 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.

Prerequisite: Language Proficiency

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.

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency *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.

Prerequisite: Language Proficiency

IAI: CRJ 912

CRJ 124 Penology and 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.

Prerequisite: Language Proficiency

IAI: CRJ 911

Course Information and Descriptions

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. Will also cover the traffic laws in the Illinois Vehicle Code.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

CRJ 214 Substance Abuse and Criminal Justice (3-0) 3 Hours

This course reviews the historical and sociological development of vice control and drug addiction. It will also cover the legal and operational problems of drug and vice control.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

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.

Prerequisite: Language Proficiency

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.

Prerequisites: 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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

Recommended: CRJ 121

CRJ 229 Juvenile Delinquency (3-0) 3 Hours

This course is a study of the social, legal, and behavioral aspects of juvenile delinquency: organization, jurisdiction, and functioning of the juvenile court, police, and related agencies.

Prerequisite: Language Proficiency

IAI: CRJ 914

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.

Cross-listed with PSY 248.

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.

Prerequisite: Sophomore

DANCE (DNC)

Communication Arts, Humanities & Fine Arts Division, Room B210, (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.

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.

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, out of shape 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.

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.

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.

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.

May be taken twice for credit

DNC 129 Dance Practicum I (0-6) 3 Hours

This course provides students with supervised practical experience in dance performance and/or production. Course can be tailored to various aspects of dance production including performance, choreography, directing, costume design, and lighting.

Prerequisite: Consent of Instructor

Recommended: Strong verbal communication skills

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 releve, 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).

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.

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.

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.

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.

Prerequisite: Language Proficiency

IAI: F1 906

Course Information and Descriptions

DENTAL HYGIENE (DHY)

Biological & Health Sciences Division,
Room C140, (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.

Prerequisites: BIO 124 OR BIO 244 and BIO 245 (all C or better)
AND Admission to the Dental Hygiene Program

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.

Prerequisites: DHY 111, DHY 113, DHY 115, DHY 117, DHY 171 (C or better in each)

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.

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.

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.

Corequisite: DHY 111

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.

Corequisite: DHY 112
Course fee

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.

Corequisite: DHY 111

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.

Corequisite: DHY 112

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.

Corequisite: DHY 111

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.

Prerequisite: DHY 112, DHY 114, DHY 116, DHY 119, DHY 174, and DHY 217 (all C or better)

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.

Corequisite: DHY 179

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.

Corequisite: DHY 111

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.

Corequisites: DHY 112

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.

Corequisite: DHY 112

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.

Corequisite: DHY 179

Course fee

Course Information and Descriptions

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.

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.

Prerequisite: DHY 176, DHY 179 and DHY 274 (C or better in all)

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.

Prerequisites: DHY 211, DHY 213, DHY 215, DHY 219, DHY 232, and DHY 271 (C or better in each)

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.

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.

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.

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.

Corequisite: DHY 212

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.

Corequisite: DHY 211

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.

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.

Corequisite: DHY 211

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.

Corequisite: DHY 211

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.

Corequisite: DHY 212

DIGITAL MEDIA & DESIGN (DMD)

Communication Arts, Humanities & Fine Arts Division, Room B210, (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'll 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.

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.

Prerequisite: Language Proficiency

Course fee

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.

Course fee

Course Information and Descriptions

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.

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.

Prerequisite: Language Proficiency

Course fee

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.

Prerequisite: Language Proficiency

Course fee

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.

Course fee

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.

Prerequisite: DMD 113 or ART 122

Course fee

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.

Prerequisite: DMD 116 or Consent of Instructor.

Course fee

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.

Prerequisite: DMD 116 -OR- CIT 170

Course fee

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.

Prerequisite: DMD 111, DMD 115, DMD 116 or consent of instructor.

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.

Course fee

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.

Prerequisite: ART 264

Course fee

Course Information and Descriptions

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.

Prerequisite: ART 264

Course fee

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.

Prerequisite: DMD 116 with a grade of C or better.

Course fee

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.

Prerequisite: DMD 116 or Consent of Instructor.

Course fee

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.

Prerequisite: DMD 251 and DMD 253

Course fee

DMD 273 Advanced Electronic Graphic Publishing (2-2) 3 Hours

This course is 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 system in support of a marketing strategy that incorporates consumer decision-making theories and models. Students will develop all aspects including a fully functioning prototype for a variety of different client needs. The course will examine mass production issues, as well as specialty types of print packages.

Prerequisite: ART 271 and Basic Algebra Readiness

Course fee

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.

Prerequisite: DMD 116 and DMD 173 OR DMD 233 and Language Proficiency OR Consent of Instructor

Course fee

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.

Prerequisite: Basic Algebra Readiness, DMD 174, and DMD 273
Course fee

DMD 299 Selected Topics in Digital Media and Design (Variable) 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, new developments in the industry. Course content will vary depending on the topic being studied. Variable credit from one to three hours.

Course fee

May be taken up to four times for a maximum of six credit hours in different topics towards an AAS or certificate in DMD.

EARLY CHILDHOOD EDUCATION (ECE)

Social Science Division, Room A244, (847) 543-2047

ECE 115 Music Activities for Young Children (3-0) 3 Hours

Descriptive lecture and experiential music activities emphasize the role of music in the early childhood program. The sequence of children's musical development and the relationship between early music exposure and children's cognitive development will be covered. Skills in singing, listening, creative movement, using rhythm instruments and playing the autoharp will be developed. Previous music experience is not required.

Prerequisite: Language Proficiency

ECE 116 Creative Activities (2-2) 3 Hours

This course is an overview of techniques of conducting creative activities with young children ages 3 through 8, including experiences in art, music, language arts, science, mathematics, and social play. Creative Activities is designed for preschool and Kindergarten teachers and/or students in early childhood care and education. Each class involves discussions, hands-on experiences in planning and implementing activities, exchange of experiences and ideas, and group problem-solving/collaboration.

Prerequisite: Language Proficiency

Course fee

Course Information and Descriptions

ECE 117 Creative Activities for Infants and Toddlers (3-0) 3 Hours

This course focuses on developing appropriate curriculum for very young children (infants, toddlers and two-year-olds). It includes books, sensory activities, music and movement, language play, nature activities, fine and gross motor skills, art experiences, dramatic play, and curriculum planning.

Prerequisite: Language Proficiency

Course fee

ECE 121 Introduction to Early Childhood Education (3-0) 3 Hours

This course is designed as an overview of early childhood care and education from infancy through school-age, including the basic historical and theoretical perspectives, structure, organization, environments, and programming in early childhood classrooms and centers. Examination of the student's personal qualities and dispositions for teaching in relationship to expectations of the field is addressed throughout the course. A field experience component of 15 contact hours of direct observation in a variety of early childhood settings is required.

Prerequisite: Language Proficiency

ECE 129 Language Development and Early Literacy (3-0) 3 Hours

This course focuses on the development of speech and language in the young child, from birth through school age. Students will gain an understanding of how children progress through language development at differing rates, as well as an understanding of the effects of diversity, including cultural and linguistic diversity. The course includes assessment of child language, methods of facilitating language development, practical curriculum activities, and criteria for literature selection.

Prerequisite: ECE 121 (C or better) and PSY 222 (C or better)

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. 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.

Prerequisite: ECE 121 (C or better)

ECE 133 Home-Based Childcare Management (3-0) 3 Hours

This course focuses on the specialized knowledge and skills needed to provide high quality home child care for children 6 weeks to 12 years of age. It includes DCFS Standards regarding the physical environment, child development principles, appropriate guidance and curriculum for multiage groups, relationships with parents, and business management and administrative skills.

Prerequisite: Language Proficiency

ECE 141 Health, Safety, and Nutrition for Young Children (3-0) 3 Hours

This course focuses on personal health needs of the individual, including health, safety, and nutrition issues with emphasis on meeting the needs of the children in group settings. Topics addressed will include the roles and responsibilities of adults as they relate to the management of children's health and the promotion of positive lifelong practices, the importance of a healthy lifestyle to the individual's development and learning, common childhood injuries and illnesses, the vital importance of planning healthy and safe environments for children, and the basic elements of planning nutritionally adequate and appropriate meals. This course is intended

for students enrolled in the Early Childhood Education A.A.S., A.A., and certificate programs.

Prerequisite: Language Proficiency

ECE 214 Group Care of Infants and Toddlers (3-0) 3 Hours

This course is an overview of infant and toddler programs and includes the care and protection of very young children, developmental-educational curriculum, and physical and social environments for optimum growth and interactions. Required field experience of 20 hours in a site determined by the Instructor.

Prerequisite: ECE 121 (C or better) and PSY 222 (C or better)

ECE 220 Observation and Assessment (3-0) 3 Hours

This course is an introduction to the skills and methods used to observe young children in various education and care settings. Emphasis will be on learning to use formal and informal means of assessment that are age, developmentally, linguistically, and culturally appropriate. Through field observations, the student will develop skills to authentically record and interpret child behaviors and to use the information to plan curriculum that is responsive to and supportive of children's learning from birth to age 8. (Thirty hours of guided observation and participation in early childhood programs and classrooms is required for completion of this course.)

Prerequisite: ECE 121 (C or better) and PSY 222 (C or better)

May be taken three times for credit toward degree

ECE 223 Child, Family, and Community (3-0) 3 Hours

The course focuses on the child in the context of family and community. It emphasizes the teacher's role in working with the child's family and community; stresses parent education, diversity in families, and legal responsibilities; and specifies criteria and techniques for formulating effective home-school partnerships. Class discussions and assignments will require student analysis and critical evaluation skills.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

ECE 232 Math and Science for Young Children (3-0) 3 Hours

The course incorporates theoretical, research, and pedagogical components related to mathematics and science for the young child. It emphasizes planning, preparation, and evaluation of appropriate activities and materials for use in early childhood math and science curriculum. It includes the acquisition of mathematical understandings in early childhood, the assessment of those understandings, and the contribution of family and culture to math and science learning.

Prerequisite: Language Proficiency and Basic Algebra Readiness

ECE 233 The Special Needs Child in Early Childhood Education (3-0) 3 Hours

The course will focus on practical techniques for working with special needs children in the regular early childhood setting. It includes characteristics of young special needs children and modifications in curriculum, routines, and classroom management for children with various types of special needs.

Prerequisite: ECE 121 (C or better) and PSY 222 (C or better)

Course Information and Descriptions

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.

Prerequisite: ECE 121 (C or better) and PSY 222 (C or better)

May be taken three times for credit toward degree

ECE 270 Organization and Administration of Early Childhood Programs (3-0) 3 Hours

This course will examine the management, supervision, and leadership of early childhood programs that serve children from infancy through age eight. Topics will include: program mission, philosophy and goals; development and implementation of policies and procedures; appropriate curriculum; effective hiring, supervision and evaluation of staff members; professional development and training; design and arrangement of the facility; environmental health and safety; finance and budgeting; uses of technology for record-keeping; ethics; family and community relationships; licensing and other governmental regulations; accreditation systems; program evaluation; advocacy.

Prerequisite: Language Proficiency, PSY 222 (C or better), ECE 121 (C or better) + 9 additional credit hours in Early Childhood Education

ECE 276 Early Childhood Practicum (2-20) 4 Hours

This course includes supervised work experience in an early childhood program. It includes interaction with children and parents, planning and implementing of activities, observation and assessment of children, and participation as a member of a teaching team and the program. A total of 300 contact hours in an assigned classroom is required, along with a bi-weekly scheduled group seminar. All course requirements and assignments must be completed within a six-month time period.

Prerequisite: Enrollment in the Early Childhood Education AAS, 30 credit hours in ECE course work, min GPA of 2.40, and department chair's approval 60 days prior to semester start.

May be taken three times for credit toward degree

ECE 299 Special Topics in Early Childhood Education (Variable) 1-3 Hours

Special topics in the field of early childhood education will be developed. Topics will focus on a specific current issue in the area of early childhood care and education. A maximum of 3 credit hours of ECE 299 may be used as elective toward an A.A.S. degree in early childhood education.

May be taken four times, but any topic only once

EARTH SCIENCE (ESC)

Engineering, Math & Physical Sciences Division,
Room T102, (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.

Prerequisite: Language Proficiency 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.

Prerequisite: Language Proficiency 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.

Prerequisite: GEO 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.

Prerequisite: Language Proficiency 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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

IAI: P1 905

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course Information and Descriptions

ESC 127 Introduction to Meteorology with Lab (3-2) 4 Hours

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness
IAI: PI 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.

Prerequisite: Language Proficiency and Basic Algebra Readiness
IAI: PI 905

ESC 140 Introduction to Astronomy (3-2) 4 Hours

A one-semester survey course primarily for non-science majors. The course will provide an introduction to the basic concepts of astronomy. Topics will include: the solar system, evolution of stars, the Milky Way and beyond. Additionally, the tools and historical development of the science will be explored. Labs will include (but not limited to): Observations, measurements, data gathering and analysis, recording and identifying objects in the night sky. (Some night observations will be required.) Course is designed to meet the general education science lab requirement. *Note:* Completion of MTH 108 is strongly recommended.

Prerequisite: Language Proficiency and Basic Algebra Readiness
Course fee
IAI: PI 906L

ESC 221 Rocks and Minerals (1-2) 2 Hours

Introduction to crystallography, occurrence and economic uses of minerals and rocks, natural resources. Emphasis on hand specimen identification of minerals and rocks.

Prerequisite: Language Proficiency and Basic Algebra Readiness

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness
IAI: PI 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.

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. Course may be taken four times, but any topic only once for credit toward degree.

Prerequisite: Language Proficiency and Basic Algebra Readiness
May be taken four times, but any topic only once

ECONOMICS (ECO)

Social Science Division, Room A244, (847) 543-2047

ECO 110 Economics for Business and Industry (3-0) 3 Hours

This course surveys fundamental microeconomic and macroeconomic principles to provide the student with the basic tools to analyze current economic problems and policies. It is intended for majors in business and technical career fields. Recommended for career curriculum students.

Prerequisite: Language Proficiency

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 studied from the perspective of various economic models (e.g. Classical, Neo-Keynesian, Neo-Classical, Monetarist, and Rational Expectations Models). This discussion also includes an analysis of the dilemmas and debate confronted by macroeconomic policymakers.

Prerequisite: Language Proficiency
IAI: S3 901

ECO 222 Principles of Microeconomics (3-0) 3 Hours

The course surveys basic microeconomic concepts such as supply and demand, profit maximization, theory of the firm, competition vs. monopoly, resource pricing and select current economic problems.

Prerequisite: Language Proficiency
IAI: S3 902

ECO 223 Money and Banking (3-0) 3 Hours

The course emphasizes the economic and monetary theory of money and banking in the U.S. It includes a discussion of the impact of monetary policy decisions of the Federal Reserve System upon the aggregate economy using macro-economic analysis. Contrasts and comparisons regarding the relative effectiveness of fiscal and monetary policies are also discussed.

Prerequisite: ECO 221

ECO 224 Public Finance (3-0) 3 Hours

Public Finance explains the economic functions of government in a capitalistic economic system, the public goods, distribution and stabilization functions, with primary emphasis being given to public goods and distribution functions. Topics such as cost-benefit analysis and ability to pay and benefit principles of taxation are explained as well as the relationship between monetary policy and debt-management.

Prerequisite: ECO 221

ECO 225 Comparative Economic Systems (3-0) 3 Hours

The course analyzes economic conditions as they exist in different economic systems. It emphasizes the trade-offs between efficiency and equity, between economic freedom and economic order and between the market mechanism and economic planning. The course investigates these problems through theoretical and case-study approaches.

Prerequisite: ECO 221

EDUCATION (EDU)

Social Science Division, Room A244, (847) 543-2047

EDU 121 Introduction to Teaching (3-0) 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. A field experience of 15 hours is required.

Prerequisite: Language Proficiency

EDU 122 Observational/Clinical Experience in Education (1-2) 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 50 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.

Prerequisite: Language Proficiency

Recommended: Concurrent enrollment in EDU 121 or EDU 225

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. Fifteen hours of observation/experience with students with disabilities is required.

Prerequisite: PSY 222 (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 Pre K - 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 computer into the curriculum.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

This course fulfills the CLC International/Multicultural 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. A field experience of 15 hours is required.

Prerequisite: 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.

Prerequisites: PSY222 or PSY226, and EDU121

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 may be used as elective credit toward an A.A. or A.A.S. degree in education.

Prerequisite: Language Proficiency

May be taken four times, but any topic only once

ELECTRICAL ENGINEERING TECHNOLOGY (EET)

Engineering, Math & Physical Sciences Division,
Room T102, (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.

Prerequisite: MTH 122 and EET 175

Course fee

Offered fall only.

Course Information and Descriptions

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.

Corequisite: EET 170

Course fee

Offered 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.

Prerequisite: MTH 102 or equivalent with a grade of C or better and Language Proficiency

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.

Prerequisite: Language Proficiency

Recommended: MTH 117

Course fee

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.

Corequisite: EET 170

Course fee

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.

Prerequisite: EET 170 and MTH 122

Corequisite: MTH 123

Course fee

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.

Prerequisite: EET 174

Corequisite: MTH 123

Course fee

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.

Prerequisite: EET 113

Course fee

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.

Prerequisite: EET 113, EET 174 and EET 175

Course fee

EET 213 Introduction to Digital Electronics (3-2) 4 Hours

Principles of operation, performance, and design of digital circuits and digital instrumentation. Number systems including binary; Boolean algebra and application to digital logic; digital logic circuits; digital logic application to electronic instrumentation. *Note:* Recommended preparation MTH 117 or MTH 122 or equivalent knowledge.

Course fee

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.

Prerequisite: EET 213, CIT 134 or CIT 136

Course fee

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.

Prerequisite: EET 170, EET 174 or ELC 172

Course fee

ELECTRICAL TECHNOLOGY (ELC)

Engineering, Math & Physical Sciences Division,
Room T102, (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.

Course fee

Offered fall only.

Course Information and Descriptions

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.
Course fee

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.
Course fee

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.
Course fee

ELC 215 Power Transmission and Distribution (3-3) 4 Hours
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.
Course fee

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.
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.

ELECTRICIAN APPRENTICESHIP (EAP)

Engineering, Math & Physical Sciences Division,
Room T102, (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 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

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

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

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

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

Course Information and Descriptions

ELECTRONIC INFORMATION TECHNOLOGY (EIT)

Engineering, Math & Physical Sciences Division,
Room T102, (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.

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.

Course fee

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

EIT 130 Introduction to Nanotechnology (3-0) 3 Hours

This course will introduce the basic concepts of nanoscience and nanotechnology. The principles of self-assembly of nanostructured molecular materials and devices will be discussed. Techniques of analyzing and characterizing the properties of nanoscale materials will be described. A foundation of the processing and manufacturing of these nanomaterials, along with their applications to all industrial fields will be presented. This is an interdisciplinary course, covering areas including physics, chemistry, electronics, biology, medicine as well as networking technologies.

Prerequisite: Language Proficiency and Basic Algebra Readiness

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.

Course fee

EIT 211 Network Design and Analysis (3-2) 4 Hours

EIT 211 is intended to take a generic view of the engineering considerations in computer systems networks. The theoretical aspects of networks will be investigated, including current network configurations as well as other possible configurations. Routing will be studied including the impact of routing on general network design. The student will be required to research and design a network.

Prerequisite: EIT 210

Course fee

EIT 212 Applied Linux (2-2) 3 Hours

This course will introduce the basic concepts of the LINUX operating system and LINUX network administration. Hardware and software configurations necessary for the installation and maintenance of the operating system and its applications will be covered. A foundation of system commands, expressions and controls will be taught. More advanced skills such as print server, file server and web server applications will be implemented.

Course fee

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.

Course fee

EIT 232 Linux System Administration (2-2) 3 Hours

This course will introduce more advanced Linux network administration. Skills such as implementing, troubleshooting and securing mixed networks will be taught. Samba print and file servers, Internet gateways such as firewall and proxy servers and internet servers such as Apache Web Server will be built.

Prerequisite: EIT 212

Course fee

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.

Prerequisite: EIT 230 (C or better)

Recommended: EIT 210 (C or better)

EIT 299 Special Topics: Network Engineering (Variable) 1-4 Hours

This course will provide students with more information about specialized topics in areas of computer networking, network and system administration, telecommunications and related fields. *Note:* Topics will be identified for each section of the course.

Prerequisite: To be determined relative to topic

May be taken four times, but any topic only once

ELECTRONICS ENGINEERING TECHNOLOGY (ELT)

Engineering, Math & Physical Sciences Division,
Room T102, (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.

Course fee

ELT 116 Technical Programming (3-0) 3 Hours

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.

Course fee

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.

Course fee

ELT 118 Industrial Digital Electronics II (2-2) 3 Hours

Continuation of 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.

Course fee

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.

Course fee

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.

Prerequisite: ELT 151

Course fee

ELT 171 Industrial Control Systems (2-2) 3 Hours

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.

Course fee

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.

Course fee

ELT 173 Applied Analog Circuits (2-2) 3 Hours

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.

Course fee

ELT 214 Microwave Systems and Measurements (2-3) 3 Hours

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.

Course fee

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.

Course fee

ELT 271 Circuit Analysis Computer Techniques (3-0) 3 Hours

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.

ELT 272 Circuit Analysis Techniques (3-0) 3 Hours

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.

Course Information and Descriptions

ELECTRONICS MANUFACTURING (EMF)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

EMF 111 Electronics Math I (2-0) 2 Hours

Introduces topics in algebra, trigonometry, and problem solving techniques as it applies to the Electronic Manufacturing Program within an industrial setting.

EMF 112 Electronics Math II (2-0) 2 Hours

Continues the use of algebra to solve linear equations. The quadratic equation is introduced along with right triangle trigonometry.

Prerequisite: EMF 111 (C or better)

ELECTRONIC SYSTEMS TECHNOLOGY (EST)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

EST 110 Circuit Analysis Simulation (1-0) 1 Hour

This is an online 1 credit hour course using software as a simulation tool to analyze electronic circuits and systems. The course is intended to provide analysis competencies to aid in other academic studies where circuits and systems are involved. This course is intended for delivery via the Internet. *Note:* The student should have some familiarity with electronic devices and analysis techniques.

Prerequisite: EET 170, ELC 172 or EET 174 or instructor permission.

EST 210 Maintenance and Repair of PC Systems (2-2) 3 Hours

This course will cover the basic components of a PC, including mother boards, memory, disk drives, cases and power supplies. Computers will be disassembled, reassembled and configured to operate.

Prerequisite: EET 170 or equivalent knowledge

EST 211 Electronic Systems (3-0) 3 Hours

This course will provide students with an overview of many types of electronic systems including: audio, video, computer, RF systems, analog and digital control systems, programmable control systems. The course will provide a basic understanding of terms, concepts and block diagrams of systems students will study in detail in subsequent courses taken in the Electronic Systems Technology Degree program.

Prerequisite: EET 170, 213, and ELC 172 or equivalent knowledge

EST 212 Systems Control Theory (2-2) 3 Hours

This is an introductory course in system control theory. This is a practical level course dealing with sensors, measurement techniques, and control systems. The course is intended for 2-year technology student who needs a survey of control theory and practice. Some computer modeling will be done. *Note:* Recommended preparation: ELT 171 and ELT 173

EST 213 Digital Telecommunications I (4-0) 4 Hours

This is an introductory course in digital communication. The course will emphasize the electrical considerations in digital communication and introduce topics related to digital networks. The course also includes concepts and applications related to data communications. When appropriate, specific topics related to military applications will be covered. *Note:* Recommended preparation: EET 170 and EET 213

EST 214 Digital Telecommunications II (4-0) 4 Hours

This is a second course in digital communications and will cover digital modulation techniques including pulse code modulation, pulse position modulation, and pulse width modulation. Hardware will be covered including hubs, switches, bridges and routers. Basic routing will be discussed and simulations will be done. When appropriate, specific topics related to military applications will be covered.

Prerequisite: EST 213

EST 215 Radar Systems (3-0) 3 Hours

This course provides working knowledge of basic principles of modern radar technology. Fundamental concepts applicable to all modern radars including radar propagation, transmitters, receivers, antennas, detection and tracking, continuous wave (CW) and frequency modulation (FM) radars, and moving target indicator (MTI) and pulse-Doppler radars are addressed and explained.

Prerequisite: ELT 172 and ELT 173

EMERGENCY AND DISASTER MANAGEMENT (EDM)

Social Science Division, Room A244, (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.

Prerequisite: Language Proficiency

EDM 112 Emergency Planning (3-0) 3 Hours

This course will examine the concepts of writing an emergency operating plan and the elements necessary for inclusion in the plan (all-risk hazard planning). Students will begin with the process for identifying local hazards. Using groups, they will analyze their hazard assessments and write a basic plan. The groups will present their plans to the class for critique. Actual emergency plans will be used to illustrate the planning requirements and results.

Prerequisite: Language Proficiency

EDM 113 Professional Development: Emergency Management (3-0) 3 Hours

This course will enable student to develop their management skills, particularly as those skills apply to emergency management. They will learn how emergency managers can guide the emergency planning, response, and recovery activities for their organizations. Special attention will be paid to the roles of volunteers and how to deal with them effectively.

Prerequisite: Language Proficiency

EDM 114 Communication in Emergency Management (3-0) 3 Hours

This course will cover several different concepts in interpersonal communications for emergency managers. Students will learn how to improve their communication skills among themselves and other emergency workers. They will learn how to provide public information to the media, and they will learn how providing information jointly with other agencies can be beneficial. This course will use audio/visual recording equipment and role-playing to simulate actual press briefings.

Prerequisite: Language Proficiency

EDM 211 Emergency and Disaster Response (3-0) 3 Hours

This course will examine the necessary components required for incident response and recovery. Topics will include rapid situation assessment, special population needs (elderly and persons with disabilities), debris removal and disposal, how to obtain outside help, and continuity of local government operations. The role of local government in disaster recovery will be examined. Techniques for helping supervisors and workers deal with the disaster response will be covered. Management of donations and spontaneous volunteers is included.

Prerequisite: Language Proficiency

EMERGENCY MEDICAL TECHNOLOGY (EMT)

Biology and Health Sciences Division,
Room C140, (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.

Prerequisite: High school diploma or GED and Language Proficiency and Basic Algebra Readiness.

Other: 18 years of age or older (at the time of licensure testing).

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.

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.

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.

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.

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.

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.

Corequisite: EMT 133

Course Information and Descriptions

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.

Corequisite: EMT 134

ENGINEERING (EGR)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

EGR 102 Introduction to Engineering (3-0) 3 Hours

Foundation course for those pursuing professional goals relating to engineering. Includes a survey of the engineering fields, associated technical disciplines and professional ethics. Analytical and critical thinking skills are emphasized. Engineering problem solving, dimensional analysis, unit conversion, metrics, estimation and design processes are topics covered. *Note:* Proficiency in basic algebra is strongly recommended.

EGR 121 Engineering Graphics (2-3) 3 Hours

Graphical language used by engineers, designers and drafters to communicate technical ideas in the context of the engineering design/manufacturing process in industry. A course covering topics such as technical sketching, measurement/scaling, geometric constructions, multi-view/working drawings, auxiliary projection, pictorials, solid modeling and descriptive geometry. The use of CAD is emphasized throughout the course. *Note:* Prior completion of geometry or a high school drafting class is strongly recommended.

Course fee

IAI: EGR 941

EGR 122 Descriptive Geometry (2-3) 3 Hours

Graphic representation and solution of spatial problems involving points, lines, planes, intersections, revolutions and developments. Student must furnish basic required equipment. *Note:* Prior completion of engineering graphics (EGR 121) or equivalent is strongly recommended.

Course fee

Offered spring only.

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 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.

Prerequisite: PHY 121 and MTH 117

Offered spring only.

EGR 221 Statics and Dynamics (5-0) 5 Hours

Vector mechanics for engineering transfer students including static analysis of force systems acting on trusses, frames, machines, etc. proceeding to particle and rigid body kinematics and kinetics with force mass, acceleration, work, energy, impulse and momentum considerations. Application to engineering structures and mechanical systems emphasized.

Prerequisite: PHY 123

Corequisite: MTH 246

Offered spring only.

IAI: EGR 944

EGR 222 Engineering Mechanics of Materials (3-0) 3 Hours

An engineering study of the elementary mechanics of deformable bodies. 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.

Prerequisite: EGR 221

Offered summer only.

EGR 260 Introduction to Circuit Analysis (3-2) 4 Hours

Circuit analysis at the engineering level. Includes all of 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.

Prerequisite: MTH 146 (C or better)

Corequisite: PHY 124 and MTH 246 or MTH 227

Offered spring only.

IAI: EGR 931L

ENGLISH (ENG)

Communication Arts, Humanities &
Fine Arts Division, Room B210, (847) 543-2040

ENG 102 Spelling (1-0) 1 Hour

English 102 (spelling) is a practical module designed to teach students how to spell the 520 most commonly misspelled words in Standard English. Instruction is self-paced and self-scheduled utilizing both a workbook and cassette tapes. Students are tested on words from each chapter through taped tests in the Testing Center. The emphasis is on learning basic rules governing English spelling and correct pronunciation of the words presented. *Note:* This course does not apply to any associate degree or career certificate.
May be taken four times for credit

ENG 103 Vocabulary Development (1-0) 1 Hour

English 103 is a module designed for students who wish to increase their vocabulary and who have problems decoding words, and expressing themselves clearly. Emphasis is placed on contextual and structural word attack skills and efficient methods of learning new vocabulary and dictionary usage. *Note:* This course does not apply to any associate degree or career certificate.
May be taken four times for credit

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.

May be taken four times for credit

ENG 105 Introduction to College Writing (3-0) 3 Hours

The goal is to enable students to gain confidence in their ability to clearly communicate facts, ideas and feelings in complete sentences, organized paragraphs and essays. *Note:* This course does not apply to any associate degree or career certificate.

May be taken four times for credit

ENG 106 Punctuation for Business English (0-2) 1 Hour

This course is a module for students who need practice in the correct transcription of numbers and abbreviations, capitalization, word division, and punctuation. *Note:* This course does not apply to any associate degree or career certificate.

May be taken four times for credit

ENG 107 Introduction to College Reading I (3-0) 3 Hours

This first level reading course is recommended for students who need to improve basic word analysis and comprehension skills. Areas of concentration include vocabulary development, dictionary skills, skimming/scanning and paragraph analysis. *Note:* This course does not apply to any associate degree or career certificate.

May be taken four times for credit

ENG 108 Strategic Reading and Writing I (6-0) 6 Hours

A developmental course designed to enable students to gain confidence in their ability to read and write effectively.

Prerequisite: APT score of 80 or higher OR ELI 103 (C or better) OR ELI 104 (C or better) OR ELI 107 OR Language Proficiency
May be taken four times for credit

ENG 109 Strategic Reading and Writing II (3-0) 3 Hours

A developmental course designed to enable students to gain confidence in using reading/writing strategies within the context of thematic units.

Prerequisite: APT score of 122 or higher OR ENG 108/ELI 108 (C or better) OR ELI 104/ELI 107 (B or better) OR ELI 103 (A or better) OR Language Proficiency
May be taken four times for credit

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.

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

IAI: CI 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.

Prerequisite: ENG 121 (C or better)

IAI: CI 901R

ENG 123 Mass Communications (3-0) 3 Hours

Mass Communications traces the development of the mass media from ancient times to the present, with emphasis on the unique evolution of mass media in the United States. Studies will center on current industry practices and issues, current social concerns with the media, and brief overviews of operations in the newspaper, book, magazine, advertising, television, radio, film, public relations, computer and international communications fields.

Prerequisite: Language Proficiency

IAI: MC 911

ENG 124 Newswriting I (3-0) 3 Hours

Newswriting is a course designed to develop skills in gathering, analyzing, organizing, writing and editing basic hard news stories. Course work includes practice in notetaking, interviewing, editing and research skills. Lab work includes writing about simulated news situations such as accidents, fires, press conferences, speeches, meetings, court proceedings and sports. We'll also see how to cover press release rewrites, obituaries, follow ups, science, consumer and business news.

Prerequisite: Language Proficiency

IAI: MC 919

ENG 126 Advanced Composition: Scientific and Technical Communications (3-0) 3 Hours

A transferable advanced composition course stressing the writing process for students in scientific and technical majors. Covers writing concisely, precisely, and clearly for a variety of purposes and audiences. Includes a multi-source research paper, writing scientific and technical reports, writing abstracts and summaries of magazine articles, writing letters, proposals, resumes, instructions, descriptions. 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.

Prerequisite: ENG 120 or ENG 121

IAI: CI 901R

Course Information and Descriptions

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 areas of applied linguistics including theories of first and second language acquisition.

Prerequisite: Language Proficiency

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. The course will discuss how languages resemble and differ from each other, the social and psychological processes involved when individuals learn languages, 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.

Prerequisite: Language Proficiency OR *Corequisite:* ELI 105

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.

Prerequisite: ENG 120 or ENG 121 (both with C or better)

This course fulfills the CLC International/Multicultural Education requirement

IAI: H3 91ID

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.

Prerequisite: Language Proficiency

ENG 220 Introduction to Scriptwriting for Video, TV and Film (3-0) 3 Hours

Scriptwriting will introduce students to the concepts, structure and format needed to develop shooting scripts for non-broadcast media, TV, and film. The course will examine how to develop realistic characters, conflict, and plot structure. Video tapes and one feature film will be used.

Prerequisite: ENG 121

ENG 222 Creative Writing (3-0) 3 Hours

Creative Writing teaches students to analyze professional poetry and short stories and guides them in the practice of writing both short stories and poetry. The course emphasizes creative expression and class critiques of student writing.

Prerequisite: ENG 121

ENG 223 Survey of Major American Writers (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.

Prerequisite: ENG 120 or ENG 121

IAI: H3 914

ENG 224 Creative Writing II (3-0) 3 Hours

Creative Writing II will emphasize the application of concepts presented in the first semester course 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 prosody and the formal elements of fiction. Individual conferences will supplement lectures and workshops to afford students a detailed response to their writing.

Prerequisite: ENG 121

ENG 225 Major Trends and Authors of English Literature (3-0) 3 Hours

This course introduces students to the authors who have most influenced the literature of English speakers. From the first English epic to the poems and prose of the nineteenth century, the works covered reflect the major artistic developments of Western society and provide the background to modern writing in the English language.

Prerequisite: ENG 120 or ENG 121

IAI: H3 912

ENG 226 Modern English Literature (3-0) 3 Hours

Modern and contemporary authors of English literature and their background. The seeds of modernism in the nineteenth century, its height of influence and contemporary reactions will be traced in the works which have shaped writing today. The literature will be analyzed as a reflection of the changes that have marked human society, values and history. Examines such themes as the growing alienation of human beings in the machine age and the political and class upheavals of the twentieth century.

Prerequisite: ENG 120 or ENG 121

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.

Prerequisite: ENG 120 or ENG 121

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.

Prerequisite: ENG 120 or ENG 121 (both with C or better)

This course fulfills the CLC International/Multicultural Education requirement

IAI: H3 906

ENG 229 Twentieth Century American Literature (3-0) 3 Hours

American literature from end of World War I to the present. Short stories, plays, poetry and novels representing major writers and trends.

Prerequisite: ENG 120 or ENG 121

IAI: H3 915

Course Information and Descriptions

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.

Prerequisite: ENG 120 or ENG 121

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.

Prerequisite: ENG 120 or ENG 121

IAI: H3 901

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.

Prerequisite: ENG 120 or ENG 121 (both with C or better)

This course fulfills the CLC International/Multicultural 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.

Prerequisite: Language Proficiency

This course fulfills the CLC International/Multicultural 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.

Prerequisite: ENG 120 or ENG 121 (both with C or better)

This course fulfills the CLC International/Multicultural Education requirement

IAI: H3 911D

ENG 249 Children's Literature (3-0)

3 Hours

This course introduces students to significant works, authors and movements in literature written for children and young adults. Emphasis will be placed on identification of various literary genres, evaluation and selection of materials, appreciation of multicultural works, and issues for developing and promoting literacy.

Prerequisite: ENG 120 or ENG 121

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.

Prerequisite: ENG 121

ENG 261 Methods of Teaching English as a Second Language (3-0)

3 Hours

This course will provide an overview of some of the major techniques and principles in teaching English as a second or foreign language. In addition, the course will discuss issues related to needs assessment, syllabus design, selection and evaluation of course materials, materials development, assessment tools, and action-research.

Prerequisite: Language Proficiency

ENG 262 Theories of Teaching ESL 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 English as a second language. In addition, the course will discuss the relationship between theory and practice and of the relevance of theory to the language classroom.

Prerequisite: Language Proficiency

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.

Prerequisite: ENG 121 (C or better)

This course fulfills the CLC International/Multicultural 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.

Prerequisite: ENG 121 (C or better)

This course fulfills the CLC International/Multicultural Education requirement

Course Information and Descriptions

ENG 265 Grammar for English Language Teachers (3-0) 3 Hours

This course will begin with a brief historical perspective of transformational, structural and traditional methodologies. 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.

Prerequisite: Language Proficiency

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.

Prerequisite: ENG 121 or ENG 126

ENG 267 Phonetics and Phonology for English Language Teachers (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. The course will also give an overview of principles in modern phonology, including the phoneme, natural classes, distinctive features and phonological rules(allophonic and morphophonemic). Students will apply this knowledge in examining and developing methods and techniques used to teach second language learners of English.

Prerequisite: Language Proficiency

ENG 268 Assessment of the English Language Learner (3-0) 3 Hours

This course will provide student with basic understanding of assessment concepts and terminology. In addition, the course will introduce students to theories and techniques of analyzing and writing tests for English Language Learners (ELL). Looking at both standardized tests and classroom-specific tests, the course will provide understanding of the variables that need to be considered when choosing and devising tests, specifically for second language learners. The course will also examine various standardized tests currently used for assessing English Language Learners and will explore alternate ways of assessing students' learning.

Prerequisite: Language Proficiency

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.

Prerequisite: EDU 121 -OR- PSY 121 -AND- ENG 127, ENG 128, ENG 261, ENG 262, ENG 265, ENG 267, ENG 268, CMM 127.

ENGLISH LANGUAGE INSTRUCTION (ELI)

Communication Arts, Humanities & Fine Arts Division, Room B210, (847) 543-2040

ELI 100 Language Skills for the English Language Learner (3-0) 3 Hours

This course will help high intermediate, to advanced level English Language Learners to build their language skills in a specific area such as pronunciation, vocabulary, or grammar. Students will learn about the most common issues in the skill area that is being focused on. They will be given various written, conversation, and listening activities to help them assimilate this particular skill into written and/or oral speech.

Prerequisite: CELSA score of 42 or higher, or Compass ESL score of 190 or higher, or Language Proficiency.

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.

Prerequisite: CELSA score of 27 or higher, or Compass ESL score of 120 or higher, or Language Proficiency, or Consent of Instructor *May be taken twice for credit toward degree*

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.

Prerequisite: Both sections (12 hours) of ELI 101 (C or better), or CELSA score of 38 or higher, or Compass ESL score of 171 or higher, or Language Proficiency, or Consent of Instructor *May be taken twice for credit toward degree*

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.

Prerequisite: ELI 102 (12 credits) C or better, or CELSA score of 50 or higher, or Compass ESL score of 221 or higher, or Language Proficiency

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.

Prerequisite: ELI 102 (12 credits) C or better, or CELSA score of 50 or higher, or Compass ESL score of 221 or higher, or Language Proficiency.

ELI 105 Academic English for English Language Learners Transitional I (3-0) 3 Hours

Level 1 of a 3 level course in academic English for English Language Learners (ELLs) at the transitional level who want to pursue academic studies in American colleges and universities or who want to practice their careers in the United States. This course is for students simultaneously enrolled in another academic class, which is determined by the college. Students will improve all language skills—reading, writing, speaking and listening—while focusing on the content area of the other academic class. Emphasis is on listening and comprehending academic lectures; reading, summarizing, and discussing expository and academic readings; writing expository essays; and participating in classroom and panel discussions.

Prerequisite: CELSA score of 60 or higher, or Compass ESL score of 261 or higher, or Language Proficiency OR ELI 104 (C or better).

ELI 106 Academic English for English Language Learners Transitional II (3-0) 3 Hours

Level 2 of a 3 level course in academic English for English Language Learners (ELLs) at the transitional level who want to pursue academic studies in American colleges and universities or who want to practice their careers in the United States. This course is for students simultaneously enrolled in another academic class, which is determined by the college. Students will improve all language skills—reading, writing, speaking and listening—while focusing on the content area of the other academic class. Emphasis is on note taking for academic lectures and readings; vocabulary enhancement and grammar usage; writing expository essays, reflective journals and reports; participating in debates, interviews and small group presentations

Prerequisite: Language Proficiency OR ELI 105 OR Co-Enrolled in ELI 105

ELI 107 Academic English for English Language Learners Transitional III (3-0) 3 Hours

Level 3 of a 3 level course in academic English for English Language Learners (ELLs) at the transitional level who want to pursue academic studies in American colleges and universities or who want to practice their careers in the United States. This course is for students simultaneously enrolled in another academic class, which is determined by the college. Students will improve all language skills—reading, writing, speaking and listening—while focusing on the content area of the other academic class. Emphasis is on preparing a formal presentation and reading and synthesizing materials for a written research project.

Prerequisite: ELI 106 OR Co-Enrolled in ELI 106 OR Language Proficiency.

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.

Prerequisite: CELSA score of 50, or Compass ESL score of 221 or higher, or higher OR APT score of 80 or higher OR ELI 103 OR ELI 104 OR ELI 107 OR Language Proficiency.

ENGLISH AS A SECOND LANGUAGE (ESL)

Adult Basic Education, GED and ESL Division
Building 4, (847) 543-2021

The Adult Education Program is funded in part by grants from the Federal Government totaling \$622,290. This represents 16% of the total cost of the program.

ENGLISH AS A SECOND LANGUAGE (ESL) classes are offered to adults from all countries whose native language is not English to pursue language instruction.

ESL courses do not apply to any associate degree or career certificate.

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.

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.

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.

Course Information and Descriptions

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.

May be taken four times for credit

ESL 30 Beginning English as a Second Language Literacy (Variable) 1-3 Hours

This course is intended for students with no proficiency in English and/or very low literacy skills in their native language.

May be taken four times for credit

ESL 31 Beginning English as a Second Language II (3-0) 3 Hours

This course is a continuation of ESL 030 (Beginning ESL I). It is intended for students with no proficiency in English and/or very low literacy skills in their native language. This course will enable students to master the "survival" vocabulary most commonly encountered in their everyday life, and prepare them more adequately for ESL 040 (Beginning ESL).

May be taken four times for credit

ESL 36 ESL: Academic Purposes: Level III: Speaking and Listening (3-0) 3 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.

May be taken four times for credit

ESL 37 ESL: Academic Purposes: Level III: Grammar (3-0) 3 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.

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.

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.

May be taken four times for credit

ESL 40 Beginning English as a Second Language III (Variable) 1-3 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.

May be taken four times for credit

ESL 41 Beginning English as a Second Language IV (3-0) 3 Hours

This course, a continuation of Beginning ESL III, is for students who have little or no knowledge of English. Students will learn how to ask and answer basic information questions about themselves. They will practice using "be" and action verbs in several tenses. They will increase their vocabulary in the areas of occupations, places in the community, common actions, adjective opposites and family relationships. They will read short passages and write sentences using these structures and vocabulary items.

May be taken four times for credit

ESL 42 Beginning English as a Second Language V (Variable) 1-3 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.

May be taken four times for credit

ESL 43 Beginning English as a Second Language VI (3-0) 3 Hours

This course, a continuation of Beginning ESL V, is for students who have little knowledge of English. Students will strengthen their use of present and future tense verbs and begin learning to use the past tense. They will learn common regular and irregular verbs. They will acquire vocabulary in the areas of parts of the body, aches and pains, symptoms, and time problems and giving excuses. Listening and speaking will be stressed with additional work on reading and writing.

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.

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.

May be taken four times for credit

**ESL 46 ESL: Academic Purposes Level IV
Speaking and Listening (3-0) 3 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.
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.
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.
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.

**ESL 50 Intermediate English as a Second
Language I (Variable) 1-3 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.
May be taken four times for credit

**ESL 51 Intermediate English as a Second
Language II (3-0) 3 Hours**
This course, a continuation of Intermediate ESL I, is for students who know some English and who can speak and write using present and future tenses and basic vocabulary and structures. Students will work intensively on mastering verb use and learning irregular verb forms. Past tense will be reviewed and past continuous introduced. Students will also learn to use direct and indirect objects correctly and to use quantity words with nouns. Vocabulary areas will include weather, reading maps and giving directions, and giving compliments.
May be taken four times for credit

**ESL 52 Intermediate English as a Second
Language III (Variable) 1-3 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.
May be taken four times for credit

**ESL 53 Intermediate English as a Second
Language IV (3-0) 3 Hours**
This course, a continuation of Intermediate ESL III, is for students who already know some English and who can speak, read, and write using present, past and future tenses and basic vocabulary and structures. Students will work intensively on correct formation and use of the present perfect tense, present perfect continuous, and future continuous verb phrases. They will learn the superlative form of common adjectives. They will learn vocabulary for giving information at a medical check-up and for restaurant conversations.
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.
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.
May be taken four times for credit

**ESL 56 ESL: Academic Purposes Level V
Speaking and Listening (3-0) 3 Hours**
English language learning students at level 5 of English language proficiency will speak and listen in English to prepare them for later academic oral work. They will practice speaking and listening about academic topics through a variety of oral formats including pair work, group work, extended discussion, lectures, presentations, guest speakers, tapes and movies.

**ESL 57 ESL: Acad Prp: Academic Purposes
Level V Grammar (3-0) 3 Hours**
English language learning students at level 5 of English language proficiency will learn English grammar and syntactic structures to help them in academic speaking, reading, and writing. Covered structures include past participle forms, present perfect aspect, phrasal verbs, gerunds and infinitives, and pronoun references in direct and indirect speech. Practice includes both oral and written activities.
Course fee

Course Information and Descriptions

ESL 58 ESL: Academic Purposes Level V	Academic Reading (3-0)	3 Hours	ESL 70 English as a Second Language Study Skills I (Variable)	1-3 Hours
English language learning students at Level 5 of English Language proficiency will read in English to prepare for later academic reading assignments. They will read authentic short stories and adapted and non-adapted short non-fiction articles, and will interpret charts, tables, and non-prose information. There is emphasis on readings related to academic culture. Practice includes activities for vocabulary improvement and dictionary skills. Course includes an introduction to academic culture of higher education in the United States.			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. <i>Course fee</i> <i>May be taken four times for credit</i>	
ESL 59 ESL: Academic Purposes Level V	Writing (3-0)	3 Hours	ESL 71 English as a Second Language Study Skills II (Variable)	1-3 Hours
English language learning students at level 5 of English Language proficiency will read in English to prepare for later academic reading assignments. They will read authentic short stories and adapted and non-adapted short non-fiction articles, and will interpret charts, tables, and non-prose information. There is emphasis on readings related to academic culture. Practice includes activities for vocabulary improvement and dictionary skills. Course includes an introduction to academic cultures of higher education in the United States.			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. <i>May be taken four times for credit</i>	
ESL 60 High Advanced English as a Second Language I (Variable)		1-3 Hours	ESL 72 English as a Second Language Reading and Writing Skills (3-0)	3 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. <i>May be taken four times for credit</i>			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. <i>May be taken four times for credit</i>	
ESL 61 High Advanced English as a Second Language II (3-0)		3 Hours	ESL 73 English as a Second Language Speaking and Listening Skills (3-0)	3 Hours
This is a continuation of Advanced ESL I for non-native speakers 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 learn to use all verb tenses more accurately. They will improve their mastery of English prepositions and two-word verbs. Aural comprehension of dialogs at normal speed will be emphasized. <i>May be taken four times for credit</i>			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. <i>May be taken four times for credit</i>	
ESL 62 Advanced English as a Second Language III (3-0)		3 Hours	ESL 80 English as a Second Language Academic Purposes Intermediate I (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. <i>May be taken four times for credit</i>			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.	
ESL 63 Advanced English as a Second Language IV (3-0)		3 Hours	ESL 81 English as a Second Language Academic Purposes Intermediate II (3-0)	3 Hours
This course, a continuation of Advanced ESL III, is for non-native speakers 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 learn to use adverb clauses of time, cause, condition, result and comparison. They will work intensively on increasing their vocabulary and on learning to recognize prefixes and suffixes. They will work in reading on identifying main ideas and supporting details. <i>May be taken four times for credit</i>			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.	
ESL 82 English as a Second Language Academic Purposes Intermediate III (3-0)		3 Hours	ESL 83 English as a Second Language Academic Purposes Intermediate IV (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.	

Course Information and Descriptions

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.

ESL 95 Citizenship I (Variable) 3-4 Hours

This course is designed to prepare people for the US Citizenship Immigration Services Naturalization test.

May be taken four times for credit

FIRE SCIENCE TECHNOLOGY (FST)

Social Science Division, Room A244, (847) 543-2047

FST 111 Introduction to Fire Service (3-0) 3 Hours

An introductory course which discusses the history and philosophy of the fire service. Overviews all aspects of fire science technology; fire fighting, emergency medical, underwater rescue, hazardous materials, public education, fire investigations, and fire prevention. Major emphasis on 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. Student orientation and pre-scheduled classroom meetings required.

Prerequisite: Language Proficiency 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. Recognized by the Office of the State Fire Marshal (OSFM) towards Fire Officer 1 & Tactics & Strategy 1. *Note:* FST 111 and/or one year active experience in the fire service is recommended.

Prerequisite: FST 111

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. Recognized by the Office of the State Fire Marshal toward Fire Officer 2/Tactic & Strategy 2.

Prerequisite: FST 116

FST 118 Incident Command (3-0) 3 Hours

Basic principles for firefighters, company officers and chief officers, for organizing and managing an emergency scene. This course will stress sectorization, scene safety, and scene management. Emergency fire, hazardous materials, underwater rescue and medical scene management will be reviewed. *Note:* FST 116 and/or 2 years active experience in the fire service is recommended.

Prerequisite: FST 116

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.

Prerequisite: FST 111

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. This course is recognized by the office of the Fire Marshal towards certification of Instructor 1 and Officer 1. *Note:* FST 111 and/or one year active service experience in the fire service is recommended.

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. Recognized by the Office of the State Fire Marshal towards Instructor 2/Officer 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. Recognized by the Office of the State Fire Marshal towards Fire Officer 1/Fire Prevention Principles 1. *Note:* Student orientation and pre-scheduled classroom meetings required.

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. The course meets the requirements for Hazardous Materials First Responder Awareness, and Hazardous Materials First Responder Operations, of the State Fire Marshal Certification and OSHA 29 CFR 1910.

Prerequisite: FST 111

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.

Prerequisite: FST 214

Course Information and Descriptions

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. Recognized by the Office of the State Fire Marshal towards Fire Officer1/ Management2. *Note:* Student orientation and pre-scheduled classroom meetings required. *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. Recognized by the Office of the State Fire Marshal towards Fire Officer 1/ Management 1.

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. Recognized by the Office of the State Fire Marshal toward Fire Officer 2/Management 3.

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. Recognized by the Office of the State Fire Marshal toward Fire Officer 2/Management 4.

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.

May be taken twice for credit toward degree

FOOD SERVICE (FSM)

See Hospitality and Culinary Management (HCM) on page 254.

FRENCH (FRN)

Communication Arts, Humanities & Fine Arts Division, Room B210, (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.

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. *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.

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.

Prerequisite: FRN 221 C or better, or Consent of Instructor
This course fulfills the CLC International/Multicultural 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.

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.

Prerequisite: FRN 223
IAI: H1 900

GENDER AND SEXUALITY STUDIES (GXS)

Social Science Division, Room A244, (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.

Prerequisite: Language Proficiency
This course fulfills the CLC International/Multicultural Education requirement

Course Information and Descriptions

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.

Prerequisite: GXS 121 (C or better)

Recommended: SWK 124

This course fulfills the CLC International/Multicultural 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.

Cross-listed with SOC 229.

Prerequisite: Language Proficiency

Recommended: SOC 121

This course fulfills the CLC International/Multicultural 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 is repeatable up to three times for a maximum of 6 credit hours towards degree completion. *Note:* May be taken three times, but any topic only once.

Prerequisite: Language Proficiency

This course fulfills the CLC International/Multicultural Education requirement

GENERAL EDUCATION DEVELOPMENT (GED)

Adult Basic Education, GED and ESL Division
Building 4, (847) 543-2021

G.E.D. PREPARATION (GED) classes prepare students to take the high school equivalency exam. GED courses do not apply to any associate degree or career certificate. Students enrolling in college-level instruction and students entering the college on F-1 visas are not eligible for tuition-free adult education classes.

The Adult Education Program is funded in part by grants from the Federal Government totaling \$622,290. This represents 16% of the total cost of the program.

GED 6 GED Preparation I (Variable)

0.5-4 Hours

This course is a preparation for those who want to take the General Educational Development Examination (G.E.D.) to earn their high school equivalency certificate. It is for adults who have not completed high school. Students under age 19 should call 543-2457 for G.E.D. test information. This class is offered in English and Spanish.

May be taken four times for credit

GED 7 GED Preparation II (3-0)

3 Hours

This is a continuation of G.E.D. Preparation I (G.E.D. 006) for those who need further instruction before attempting the General Educational Development Examination (G.E.D.) to earn their high school equivalency certificate. This course is for adults who have not completed high school.

May be taken four times for credit

GEOGRAPHY (GEG)

Social Science Division, Room A244, (847) 543-2047

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course fee

IAI: PI 909L

GEG 121 Physical Geography (3-0)

3 Hours

Physical Geography is the study of all 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 people and their activities. *Note:* This course meets the physical science non-lab general education requirement.

Prerequisite: Language Proficiency

IAI: PI 909

GEG 122 Cultural Geography (3-0)

3 Hours

Cultural Geography is an introductory survey course that is designed to help students acquire geographic knowledge about human culture, 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.

Prerequisite: Language Proficiency

IAI: S4 900N

Course Information and Descriptions

GEG 123 World Regional Geography (3-0) 3 Hours

World Regional Geography is an introductory survey course that 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.

Prerequisite: Language Proficiency

IAI: S4 900N

GEG 223 Geography of Latin America (3-0) 3 Hours

This 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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness
May be taken four times for credit toward degree

GERMAN (GER)

Communication Arts, Humanities & Fine Arts Division, Room B210, (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.

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.

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.

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.

Prerequisite: GER 221 C or better, or Consent of Instructor
This course fulfills the CLC International/Multicultural 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.

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.

Prerequisite: GER 223

IAI: H1 900

HEALTH AND WELLNESS PROMOTION (HWP)

Biological & Health Sciences Division,
Room C140, (847) 543-2042

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency
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.

Prerequisite: HWP 257 (C or better) and Consent of Instructor
Course fee

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.

Prerequisite: Language Proficiency

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.

*Prerequisite: Language Proficiency
May be taken four times, but any topic only once*

HEALTH INFORMATION TECHNOLOGY (HIT)

Biological & Health Sciences Division,
Room C140, (847) 543-2042

HIT 111 Medical Terminology (3-0) 3 Hours

Studies the terms related to medical science, hospital services, medical specialties including pathology and radiology, and abbreviations used in medicine. Includes spelling and pronunciation.

Prerequisite: Language Proficiency

HIT 112 Health Care Delivery Systems (2-0) 2 Hours

Current trends in health care delivery are presented including health facilities, medical staff organization and functions, the changing roles of health care professionals, and patterns of financing health care.

Prerequisite: Language Proficiency

HIT 113 Ethical and Legal Aspects of Medical Records (2-0) 2 Hours

Presentation of concepts of law in medicine and health related areas as applied to the medical record. Includes survey of current state and federal law relative to the release of medical information.

Prerequisite: Language Proficiency

HIT 114 Medical Transcription (1-2) 2 Hours

This course will focus on the development of skills in interpreting, editing and transcribing physician and professional dictation into well organized reports using medical terminology, effective language and reference skills. *Prerequisite: AOS 178 or 40 WPM and AOS 113 C or better,*

Corequisite: HIT 111

Course fee

HIT 115 Health Data Content and Structure (2-2) 3 Hours

Introduction to the health information profession, the health information department, and the health record: its form, content, and analysis. Filing systems are also included. Health records in a variety of settings are reviewed and analyzed: acute care, ambulatory care, home health care, long term care, etc.

Prerequisite: Language Proficiency

Course fee

HIT 116 Advanced Medical Transcription (4-0) 4 Hours

This course will provide extensive and practical experience in transcription of medical reports. History and physical examination reports, consultation reports and operative reports are included for a variety of specialty areas. The focus will be on developing speed, accuracy, professional demeanor and self-confidence.

Note: In addition to the three scheduled hours of class time, students should plan on spending a minimum of eight hours per

week in the Health Information Technology lab in order to complete the required reports.

Prerequisite: HIT 114 C or better, and 55 WPM.

Corequisite: BIO 111 or BIO 245

Course fee

HIT 117 Basic CPT Coding (2-2) 3 Hours

Introduces 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.

Prerequisite: HIT 111 or MOA 110 (both C or better)

Corequisite: BIO 111 or BIO 245 (formerly BIO 124) (all C or better)

Course fee

HIT 118 Basic ICD-9-CM Coding (2-2) 3 Hours

Introduces the theory, structure, and organization of the International Classification of Diseases-9-Clinical Modification (ICD-9-CM) coding system. Emphasis will be on the application of coding principles to accurately assign ICD-9-CM codes to health records. The role of ICD-9-CM codes in billing and reimbursement will be included.

Prerequisite: HIT 111 or MOA 110 (both C or better)

Corequisite: BIO 111 or BIO 245 (formerly BIO 124) (all C or better)

Course fee

HIT 119 Pharmacology (1-0) 1 Hour

Introduction to pharmacology. Includes terminology, drug category, use, side effects, contraindications, and interactions. Common dosage ranges and routes of administration will also be examined.

Prerequisite: Language Proficiency

HIT 171 Insurance Procedures for the Medical Office (3-0) 3 Hours

Introduces health records and insurance processing procedures in the medical office. Emphasizes the relationship between health information and billing procedures. Brief overviews of diagnostic and procedural coding are included.

Prerequisite: Language Proficiency

HIT 172 Health Statistics and Registries (1-2) 2 Hours

Focuses on the collection and reporting of medical statistical data. The functions and uses of registries, with emphasis on the Cancer Registry, are studied.

Prerequisite: HIT 115 (C or better) and admission to the HIT program

Course fee

HIT 212 Professional Practice Experience in Health Information Technology I (1-15) 4 Hours

First course of a two-semester sequence of supervised clinical experience in health facilities.

Notes: A satisfactory health screening must be on file with the college's Health Center 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 the final Fall semester.

Prerequisites: HIT 113, HIT 115 (C or better in each), and admission to the HIT program

Course fee

Course Information and Descriptions

HIT 213 Professional Practice Experience in Health Information Technology II (5-7.5 hours) 2 Hours

Supervised clinical experience in various areas pertaining to health information.

Notes: A satisfactory health screening must be on file with the college's Health Center 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 the final Spring semester.

Prerequisite: HIT 212 (C or better)

Course fee

HIT 214 Organization and Supervision (2-0) 2 Hours

Covers the basic principles of management and supervision as applied to the health information profession.

Prerequisite: HIT 115 (C or better) and admission to the HIT program

HIT 215 Medical Science (2-2) 3 Hours

Covers current theories of disease processes which will assist the student in interpreting information within the medical record.

Prerequisite: HIT 111 or MOA 110 (C or better in either)

Course fee

HIT 217 Health Information Systems and Data Literacy (2-2) 3 Hours

Introduces the application of basic statistical methods to health data, including reliability and validity of data, measures of central tendency, data dispersion, and data presentation. Review of electronic data processing concepts, systems concepts, and computer applications in health care.

Prerequisite: HIT 115 (C or better) and admission to the HIT program

Course fee

HIT 218 Seminar in Health Information Technology (2-0) 2 Hours

Selected problems or topics of interest to health information technology are analyzed and discussed. A literature search is summarized in a written report, and the substance of the study is presented orally.

Corequisite: HIT 213

HIT 219 Quality Management and Performance Improvement (2-0) 2 Hours

Introduces the principles of the quality assessment process and utilization management. Provides a framework for gaining skills in collecting and analyzing data for performance improvement initiatives.

Prerequisite: HIT 115 (C or better) and admission to the HIT program

HIT 271 Advanced Coding (1-2) 2 Hours

This course explores the more complex areas of ICD-9-CM and CPT coding which were introduced in HIT 117 and HIT 118. 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 are integrated into the course.

Prerequisites: HIT 117 and HIT 118 (C or better in both) and admission into the Program

Corequisite: HIT 215

Course fee

HIT 272 Reimbursement Systems in Healthcare (2-0) 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.

Prerequisites: Completion of one coding course (HIT 117 or HIT 118) (C or better in any) and admission into the program

Corequisite: Concurrent enrollment in a second coding course (HIT 117 or HIT 118)

HEATING AND AIR CONDITIONING (HVAC) ENGINEERING TECHNOLOGY (HET)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

(Previously Refrigeration and Air Conditioning - RAC)

HET 110 Basic Refrigeration Systems (2-4) 4 Hours

(Previously RAC 110) 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.

Course fee

HET 111 HVACR Electricity I (2-4) 4 Hours

(Previously RAC 174) 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.

Course fee

HET 119 HVACR Electricity II (2-4)**4 Hours**

(Previously RAC 119) 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.

Prerequisite: HET 110 and HET 111

Course fee

HET 130 Heating I Residential Appliances (2-4)**4 Hours**

(Previously RAC 118) 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.

Prerequisite: HET 110 and HET 111

Course fee

HET 135 Plumbing and Pipefitting I (2-2)**3 Hours**

(Previously RAC 131) 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.

Prerequisite: HET 110

Course fee

HET 136 Plumbing and Pipefitting II (2-2)**3 Hours**

(Previously RAC 133) 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.

Prerequisite: HET 135

Course fee

HET 150 Air Conditioning I Split-Systems (2-4)**4 Hours**

(Previously RAC 112) 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.

Prerequisite: HET 110 and HET 111

Course fee

Offered summer only.

HET 170 Refrigeration I Small Appliances (2-4)**4 Hours**

(Previously RAC 111) 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.

Prerequisite: HET 110 and HET 111

Course fee

HET 172 Refrigeration II Commercial Appliances (2-4)**4 Hours**

(Previously RAC 113) 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.

Prerequisite: HET 110 and HET 111

Course fee

Course Information and Descriptions

HET 190 EPA Certification Preparation (1-2) 2 Hours

(Previously RAC 176) 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.

Prerequisite: 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.

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.

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.

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

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.

Prerequisite: 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.

Prerequisite: HET 119 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 minimum CELSA score of 50 or Language Proficiency; or Consent of Instructor.

HET 230 Air Movement and Ventilation (2-4) 4 Hours

(Previously RAC 173) 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.

Prerequisite: HET 119 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 minimum CELSA score of 50; or Language Proficiency; or Consent of Instructor

Course fee

HET 231 Heating II Hydronic Heating Systems (2-4) 4 Hours

(Previously RAC 177) 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.

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 minimum CELSA score of 50, or Language Proficiency; or Consent of Instructor

Course fee

HET 250 Air Conditioning II Commercial HVAC Appliances (2-4) 4 Hours

(Previously RAC 115) 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.

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 minimum CELSA score of 50, or Language Proficiency; or Consent of Instructor

Course fee

HET 252 Air Conditioning III Installation and Service (2-4) 4 Hours

(Previously RAC 114) 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.

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 minimum CELSA score of 50, or Language Proficiency; or Consent of Instructor

Course fee

HET 272 Refrigeration III Commercial Appliance Installation (2-4) 4 Hours

(Previously RAC 117) 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.

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 minimum CELSA score of 50, or Language Proficiency; or Consent of Instructor

Course fee

HET 273 Direct Digital Controls (3-4) 5 Hours

(Previously RAC 273) 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.

Prerequisite: HET 119 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 minimum CELSA score of 50; or Language Proficiency; or Consent of Instructor

Course Information and Descriptions

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.

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 minimum CELSA score of 50; or Language Proficiency; 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.

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 minimum CELSA score of 50; or Language Proficiency; or Consent of Instructor

Course fee

HET 292 Resnet 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.

Perquisite: Consent of Instructor

Course fee

HET 293 HVAC Codes (3-0) 3 Hours

(Previously RAC 171) 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.

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 minimum CELSA score of 50, or Language Proficiency; 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.

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 minimum CELSA score of 50, or Language Proficiency; or Consent of Instructor
Course fee

HET 295 HET Capstone (2-2) 3 Hours

(Previously RAC 297) 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.

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 minimum CELSA score of 50, or Language Proficiency; or Consent of Instructor

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. This course may be taken up to four times for credit but any topic only once, for a maximum of 16 hours towards degree completion.

Prerequisite: Varies depending upon the topic
Course fee

HISTORY (HST)

Social Science Division, Room A244, (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.

Prerequisite: Language Proficiency
IAI: S2 902

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.

Prerequisite: Language Proficiency
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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

HST 126 History of Contemporary**Non-Western Civilization (3-0)****3 Hours**

History of Contemporary Non-Western Civilization is a survey of the historical roots and modern history of the following areas: The Far East, Southeast Asia, 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.

Prerequisite: Language Proficiency

IAI: S2 905N

**HST 127 History of Chinese Culture
and Society (3-0)****3 Hours**

This survey course is designed to provide students with an introduction to Chinese culture and society by studying its history, geography, political and economic structures, social organization and cultural institutions.

Prerequisite: Language Proficiency

IAI: S2 914N

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.

Prerequisite: Language Proficiency

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, such as the interpretive survey on the political, constitutional, economic, social and cultural developments in the United States. Also an exploration of the European and African backgrounds, the colonial era, early national period, the era of Jacksonian Democracy, slavery, the Civil War, and Reconstruction.

Prerequisite: Language Proficiency

IAI: S2 900

**HST 222 United States History 1876
to Present (3-0)****3 Hours**

This course is an interpretative survey of social, economic, political, diplomatic, and cultural developments of United States since 1876 with emphasis on impact of industrialism, urbanization, two world wars, depression, foreign and domestic issues, and post World War II.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

IAI: S2 910N

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.

Prerequisite: Language Proficiency

IAI: S2 911N

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. This course is repeatable up to four times because course content varies each semester.

Prerequisite: Language Proficiency

May be taken four times, but any topic only once up to 6 credit hours

Course Information and Descriptions

HORTICULTURE (HRT)

Biological & Health Sciences Division,
Room C140, (847) 543-2042

HRT 111 Introduction to Horticulture (3-0) 3 Hours

This course introduces students to basic plant anatomy, terminology, and functions of plants. Professions working with the culture and use of ornamental plants will be included.

Prerequisite: CELSA score of 50 or higher, OR APT score of 80 or higher, OR ELI 103 (C or better), OR ELI 104 (C or better), OR ELI 107 (C or better), OR Language Proficiency AND Basic Algebra Readiness

IAI: AG 905

HRT 113 Shrub Identification (2-2) 3 Hours

A continuation of tree identification to include small trees, shrubs, vines, and ground covers by their common and botanic names. Approximately 110 species will be covered in this course.

Course fee

HRT 114 Introduction to Soils (2-2) 3 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.

Prerequisite: HRT 111 (C or better)

Recommended: BIO 120 AND CHM 140 or CHM 142

Course fee

HRT 115 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.

Course fee

HRT 116 Entomology (2-2) 3 Hours

Studies 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. Labs include observation, identification, and diagnosis of insect plant pests.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course fee

HRT 117 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 240 plants will be covered in this course. Students will attend field trips and outdoor labs.

Course fee

Offered summer only.

HRT 119 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.

Prerequisite: HRT 111

Course fee

HRT 130 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.

Prerequisite: CELSA score of 50 or higher, OR APT score of 80 or higher, OR ELI 103 (C or better), OR ELI 104 (C or better), OR ELI 107 (C or better), OR Language Proficiency AND Basic Algebra Readiness

Course fee

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.

Prerequisite: CELSA score of 50 or higher, OR APT score of 80 or higher, OR ELI 103 (C or better), OR ELI 104 (C or better), OR ELI 107 (C or better), OR Language Proficiency AND Basic Algebra Readiness

Course fee

HRT 155 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.

Course fee

HRT 172 Interior Plant Maintenance (2-2) 3 Hours

A lecture and laboratory course covering the design, installation, and care of interior plantings. Begins with the basics of plant identification, growth and development, and propagation. Other topics include fertilization, soils, indoor climates, pests, diseases, and business operations.

Corequisite: HRT 111

Course fee

HRT 174 Basic Floral Design (2-2) 3 Hours

Introduces the principles of floral design including the care and use of floral materials and accessories. Identification, handling, and storage of cut flowers will be covered. In addition to construction of basic arrangements, the floral industry and working in a flower shop will be discussed.

Course fee

HRT 175 Advanced Floral Design (2-2) 3 Hours

Focuses on arrangements for special occasions such as weddings, funerals, and holidays. Customer relations will also be emphasized.

Prerequisite: HRT 174

Course fee

HRT 190 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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

HRT 210 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 pot crops will be grown throughout the semester.

Prerequisite: HRT 111 (C or better)

Recommended: BIO 222

Course fee

HRT 211 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.

Corequisite: HRT 111

Course fee

HRT 218 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 nearby growing facilities.

Prerequisite: HRT 111 and HRT 211 (both C or better)

Course fee

HRT 219 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.

Prerequisite: HRT 111 (C or better)

HRT 230 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.

Prerequisite: HRT 130 (C or better)

Recommended: HRT 115 (C or better) OR HRT 117 (C or better)

Course fee

HRT 235 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.

Prerequisite: HRT 130

Recommended: CAD 117 (C or better)

Course fee

HRT 250 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.

Prerequisite: CELSA score of 50 or higher, OR APT score of 80 or

higher, OR ELI 103 (C or better), OR ELI 104 (C or better), OR ELI 107 (C or better), OR Language Proficiency AND Basic Algebra Readiness
Course fee

HRT 255 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.

Prerequisite: HRT 115 (C or better)

Course fee

HRT 275 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. Fieldtrips also will provide an opportunity for hands-on practice at various management techniques like prescribed burning and vegetation monitoring.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Recommended: BIO 126 (C or better)

HRT 277 Field Study in Horticulture (Variable)**1-3 Hours**

Students will travel with faculty to international/regional locations, which may vary from year to year, to study selected topics in horticulture. The course may emphasize the landscape design, the plant materials used, and the installation, care, and maintenance of the various gardens visited. Lectures, field trips, demonstrations, and on-site, individualized instruction will be used. *Note:* Travel expenses are paid by the student.

May be taken three times, but any topic only once

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.

HRT 290 Horticulture Practicum (3-0)**3 Hours**

This course is a special project arranged by the HRT faculty member and student, and addresses a specific area of interest to the student. Credit is variable depending on extent of project and time committed.

Prerequisite: 15 hours of HRT (C or better) and consent of instructor

HRT 295 Seminars in Horticulture (1-0)**1 Hour**

This is a capstone course for horticulture majors. It addresses current environmental trends in the green industry, job readiness, resume preparation and interview skills. Guest speakers include a range of representatives from the green industry.

Prerequisite: Completion of at least 25 credit hours in Horticulture (C or better)

Course Information and Descriptions

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.

Course fee

May be taken four times, but any topic only once

HOSPITALITY AND CULINARY MANAGEMENT (HCM)

Business Division, Room T102, (847) 543-2041

(Previously Food Service Management - FSM)

HCM 110 Introduction to the Hospitality Industry (3-0) 3 Hours

(Previously FSM 110) 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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

HCM 111 Culinary Principles I (2-6) 5 Hours

(Previously FSM 111) 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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

Course fee

HCM 112 Culinary Principles II (2-6) 5 Hours

(Previously FSM 112) 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.

Prerequisite: HCM 111 with a grade of C or better

Course fee

HCM 113 ServSafe: Food Service Sanitation (1-0) 1 Hour

(Previously FSM 113) 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 SERVSAF BOOK TO FIRST CLASS—AVAILABLE AT CLC BOOKSTORE.

HCM 170 Patissiere I (2-6) 5 Hours

(Previously FSM 170) This course covers the basic principles and ingredients used in bakeshop production. Topics covered include identification of equipment and specialized tools used in the bakeshop, identification of ingredients used in the bakeshop, controlling the development of gluten, cooking sugar correctly, and understanding the baking process. This course introduces students to skills needed in a bakeshop and focuses on preparation of baked goods found in commercial foodservice operations.

Course fee

HCM 171 Culinary Principles III (2-6) 5 Hours

(Previously FSM 171) 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.

Prerequisite: HCM 112 with a grade of C or better

Course fee

HCM 172 Patissiere II (2-6) 5 Hours

This course introduces students to the skills and competencies needed to be a professional pastry chef. Topics include cake preparation, assorted pastries, frozen desserts, basic chocolate and confectionery work, and plate presentation.

Prerequisite: HCM 170 with a grade of C or better

Course fee

HCM 175 Nutrition (3-0) 3 Hours

(Previously FSM 175) 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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

HCM 185 Garde Manger (2-4) 4 Hours

This course introduces students to the Garde Manger (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.

Prerequisite: HCM 171 with a grade of C or better

Course fee

HCM 212 Menu Marketing and Management (3-0) 3 Hours

(Previously FSM 212) 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.

Prerequisite: HCM 111 with a grade of C or better

HCM 213 Purchasing & Inventory Control (3-0) 3 Hours

(Previously FSM 213) 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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

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.

Prerequisite: Language Proficiency

HCM 271 Hospitality Leadership (3-0) 3 Hours

(Previously FSM 271) 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.

Prerequisite: 15 semester hours of HCM courses, one of which must be HCM 212, 213, or 273 with a grade of C or better

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.

Prerequisite: Fifteen credit hours of HCM courses and HCM department consent

HCM 273 Controlling Hospitality Costs (3-0) 3 Hours

(Previously FSM 273) 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.

Prerequisite: HCM 212 and HCM 213 , both with a grade of C or better

HCM 299 Selected Topics in Hospitality (Variable) 1-3 Hours

(Previously FSM 299) 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.

Prerequisite: Dependent on course topic.

Course fee

**HUMAN SERVICES PROGRAM
(HUS and HUX)**

Social Science Division, Room A244, (847) 543-2047

HUS 113 Group Processes (3-0) 3 Hours

Introduces basic theories of group processes and related communication skills. Laboratory experiences include observations of group behavior and experiences in self-understanding in relationship to other members in the group.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: PSY 121 (C or better)

HUS 118 Professional Helping Skills (3-0) 3 Hours

An introduction to the dynamics of establishing positive relationships with people in need of human services. The issue of intervention, therapeutic interviewing, confidentiality, and empathetic communication will be presented. Required field experience of 40 hours with HUS department chair-appointed social service agencies.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency and Basic Algebra 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.

Prerequisite: HUS 118 or HUX 170 (both C or better)

Course Information and Descriptions

HUS 170 Human Service Practicum I (1-12) 4 Hours
Supervised work experience at a designated facility that provides services related to the Human Service option which the student has elected. Total of 180 practicum hours, plus 30 hours of supervision.
Prerequisite: Language Proficiency, sophomore standing, 2.3 GPA, department chair's approval 60 days prior to the start of the semester for which the practicum is requested

HUS 171 Human Service Practicum II (1-12) 4 Hours
A continuation of supervised work experience in a preschool setting, residential childcare facility, or other community agency employing human service workers. The student is guided from the Practicum I level of limited leadership to a level of total responsibility for programming during the hours the student serves at the practicum site. Total of 180 practicum hours, plus 30 hours of supervision.
Prerequisite: Language Proficiency, sophomore standing, 2.4 GPA, HUS 170 (C or better), coordinator's approval 60 days prior to the start of the semester for which the practicum is requested

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.
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.
Prerequisite: Language Proficiency

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.
Prerequisite: Language Proficiency

HUS 219 Internship (2-15) 5 Hours
Individual supervision and group seminars. Includes anticipation of employed human service technician's role on a social services team. Laboratory experience scheduled as much as possible in an area of student's interest. The internship involves 250 hours which includes 30 hours of supervision.
Prerequisite: Language Proficiency, sophomore standing, 2.4 GPA, HUS 171 (C or better), consent of HUS coordinator

HUS 231 Adult Development & 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.
Prerequisite: Language Proficiency

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.
Prerequisite: HUS 132 (C or better)
Recommended: HUS 236 (C or better)

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.
Prerequisite: HUS 118 (C or better)
Recommended: HUS 132 (C or better)

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.
Prerequisite: Language Proficiency
May be taken twice, but any topic only once

HUX 170 Introduction to Substance Abuse (3-0) 3 Hours
Provides the student with an historical background of substance abuse, the addictive process, and approach to treatment. Specific topics addressed include major classifications of abused substances, the resulting treatment modalities, and the application of specific counseling strategies to addiction.
Prerequisite: Language Proficiency

HUX 171 Assessment and Diagnosis of Alcohol and Substance Abuse Disorders (3-0) 3 Hours
A study of various screening and assessment procedures used to gather information during the client intake process that form the basis for a multivariate diagnosis of alcoholism and/or substance abuse as described in the current edition of the DSM. The Bio/Psycho/Social model of assessment will be used to integrate clinical data to formulate and support a Diagnostic Summary.
Prerequisite: HUX 170

HUX 172 Other Addictive Disorders (2-0) 2 Hours
Examination of the addictive process as it is manifested in diverse social behaviors. Similarities and differences of potentially addictive behaviors will include, but not be limited to the following: gambling, smoking, eating disorders, caffeine, work, sex, compulsive spending, shoplifting, and some types of love relationships. The addictive process of "other addictive disorders" will be compared and contrasted with addictive process of alcohol and drugs.
Prerequisite: Language Proficiency

HUX 173 Special Populations and Addictive Disorders (2-0) 2 Hours
Consideration of special groups, ethnic and culture groups with distinctive patterns of ASAAD. For each subpopulation studied, the differential addiction patterns will be explained; response to traditional treatment methods identified; and application of research data and treatment modes to accommodate the needs of subpopulation groups.
Prerequisite: HUX 170

HUX 174 Ethics, Law, Regulation, Records and Documentation (2-0) 2 Hours
Introduction to multiple ethical considerations in the client relationship with professional staff. Elements considered will include but are not limited to: personal values of professional staff; confidentiality of information; sexual contact and social contacts with clients. Adequate client record documentation systems will be studied and correlated with the process of keeping client records current.
Prerequisite: Language Proficiency

HUX 175 Pharmacological and Other Medical Terminology (1-0)**1 Hour**

Study of terms used in the medical profession and the psychotherapy profession as described in the Diagnostic and Statistical Manual (DSM IV) and the International Classification of Disease (ICD Codes). Abbreviations, spelling, pronunciation are emphasized. A summary of the neuro transmitter process is also included.

Prerequisite: Language Proficiency

HUX 176 Advanced Counseling Skills for Addictive Disorders (3-0)**3 Hours**

A study of the major theoretical approaches used in counseling alcoholism, substance abuse and addictive disorders. Theory, principles and applications are emphasized. Special client problems generic to the diseases of addiction will be addressed.

Prerequisites: HUS 118 and HUX 170

HUX 177 Advanced Group Counseling Skills (2-2) 3 Hours

An integration of the major theoretical approaches to group work with practical experimental application to groupwork in a variety of human service settings. Students are expected to participate as both group leaders as well as group participants with personal concerns that need intervention.

Prerequisite: HUS 113

HUX 178 Assessment and Treatment of Addictive Families (2-0)**2 Hours**

Written and observational procedures of all family members where one or more members have an addictive disorder. Treatment issues include: co-dependency; progressive symptoms and survival strategies of each family member; family interaction patterns and communication processes.

Prerequisite: HUX 170

HUX 179 Psychosocial Aspects of HIV**Infections and Chemical Health (2-0)****2 Hours**

An interdisciplinary analysis of the biological, social and psychological aspects of HIV infections, and disease progression. Risk assessment, risk reduction, psychological interventions, medical management and legal issues are included.

Prerequisite: Language Proficiency

HUX 271 Human Service Practicum I (1-12)**5 Hours**

This course is an on-site, unpaid supervised practicum experience working directly with clients, family members, and groups in community treatment centers. Experience may include in-patient, out-patient and intensive out-patient models. Total of 300 practicum hours, which includes 50 hours of supervision and a supervision seminar.

Prerequisite: Sophomore Standing or Academic Plan of 25HG, GPA 2.3 or higher, HUX 171, HUX 174, HUX 176, and approval of Program Coordinator

HUX 272 Human Service Practicum II (1-12)**5 Hours**

A continuation of HUX 271. 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. Total of 300 practicum hours, which includes 50 hours of supervision and a supervision seminar.

Prerequisite: Sophomore Standing or Academic Plan of 25HG, HUX 271, GPA of 2.4 or higher, and approval of Program Coordinator

HUMANITIES (HUM)

Communication Arts, Humanities & Fine Arts Division, Room B210, (847) 543-2040

HUM 121 Introduction to Humanities I (3-0)**3 Hours**

This interdisciplinary course introduces students to art/architecture, literature, philosophy/religion/myth, music, and dance of ancient and medieval, western (Europe; North, Latin, and South America) and non-western (Asia, Africa, India) civilizations. *Note:* HUM 121 and HUM 122 are independent courses. HUM 121 is not a prerequisite for HUM 122. This course fulfills the CLC International/Multicultural Education requirement

Prerequisite: Language Proficiency

IAI: HF 902

HUM 122 Introduction to Humanities II (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 and HUM 122 are independent courses.

HUM 121 is not a prerequisite for HUM 122. This course fulfills the CLC International/Multicultural Education requirement

Prerequisite: Language Proficiency

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 learn how the film maker communicates to us through camera movement, angles, lenses, lighting, sound, color, and editing. Gain a historical perspective on film by viewing samples from the 1920's through the present day and analyzing both genre films such as the western, horror, musical, adventure or comedy as well as non-genre and documentary film making.

Prerequisite: Language Proficiency

IAI: F2 908

HUM 124 International and Regional Studies in the Humanities (Variable)**1-4 Hours**

Students travel with faculty to international or regional locations which may vary from year to year to study the humanities. The course may emphasize the literature, language, music, philosophy or art of the area. Lectures, field trips, demonstrations and on site individualized instruction will be used. *Note:* Travel expenses are paid by the student. Credit would be arranged with instructor. No more than 4 credit hours will count toward an associate degree or career certificate. This course fulfills the CLC International/Multicultural Education requirement

Prerequisite: Language Proficiency

May be taken four times for credit toward degree

HUM 126 Introduction to the Performing Arts (3-0)**3 Hours**

This course provides an interdisciplinary approach to the performing arts, including music, ballet and modern dance, drama and opera, as well as current performing art trends. Part of this course involves the study of philosophic, psychological and aesthetic perspectives of these performance style arts; another part will be devoted to viewing and analyzing different performing arts productions from the perspective of an educated audience member.

Prerequisite: Language Proficiency

IAI: F9 900

Course Information and Descriptions

HUM 127 Critical Thinking (3-0)

3 Hours

An introduction to critical thinking skills (i.e. informal logic), including the following: problem solving, diagramming arguments, constructing sound reasoning skills and habits, detection of fallacies and reasoning in the disciplines. The course places an emphasis on interdisciplinary reasoning both in the course's content, and in that the course may be taught by qualified faculty from a variety of disciplines.

Prerequisite: Language Proficiency

IAI: H4 906

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. This course fulfills the CLC International/Multicultural Education requirement

Prerequisite: Language Proficiency
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. This course fulfills the CLC International/Multicultural Education requirement

Prerequisite: Language Proficiency
IAI: HF 904N

HUM 140 Introduction to International Film (3-0)

3 Hours

(previously HUM 223) 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. This course fulfills the CLC International/Multicultural Education requirement

Prerequisite: Language Proficiency
IAI: F2 909

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. This course fulfills the CLC International/Multicultural Education requirement

Prerequisite: Language Proficiency
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 course will focus on the history of film and the social, economic and political pressures which have shaped its development. Special attention will be paid to important facets of the film industry such as the genre, studio and star system.

Prerequisite: Language Proficiency

IAI: F2 909

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 in the visual and performing arts, the contrast of female and male creativity, social attitudes towards women and by women, and patronage of the arts will be investigated. This course fulfills the CLC International/Multicultural Education requirement

Prerequisite: ENG 120 or ENG 121

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 catalogue. Course content and requirements will vary depending on the topic being studied.

Prerequisite: Language Proficiency

May be taken four times, but any topic only once

INDUSTRIAL ELECTRICIAN (ISE)

Engineering, Math & Physical Sciences Division,
Room T102, (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.

Prerequisite: MTH 114

Course fee

ISE 111 Industrial Electrical Circuits I (2-2)

3 Hours

Introduces students to electrical fundamentals as related to direct current systems and applications.

Prerequisite: MTH 114

Course fee

ISE 112 Industrial Electrical Circuits II (2-2)

3 Hours

Introduces students to electrical fundamentals as related to alternating current systems and applications.

Prerequisite: ISE 111

Course fee

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.

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.

Prerequisite: MTH 115 and ELC 114

Course fee

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.

Prerequisite: MTH 115 and ELC 114

Course fee

INTERNATIONAL STUDIES IN SOCIAL SCIENCE (SSI)

Social Science Division, Room A244, (847) 543-2047

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, 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.

Prerequisite: Language Proficiency

May be taken three times, but any topic only once

ITALIAN (ITL)

Communication Arts, Humanities & Fine Arts Division, Room B210, (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.

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.

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.

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, magazines, and

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.

Prerequisite: ITL 221 C or better, or Consent of Instructor

This course fulfills the CLC International/Multicultural Education requirement

IAI: HI 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.

Prerequisite: ITL 222

IAI: HI 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.

Prerequisite: ITL 223

IAI: HI 900

JAPANESE (JPN)

Communication Arts, Humanities & Fine Arts Division, Room B210, (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.

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.

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.

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.

Prerequisite: JPN 221 C or better, or Consent of Instructor

This course fulfills the CLC International/Multicultural Education requirement

IAI: HI 900

Course Information and Descriptions

LASER/PHOTONICS/OPTICS (LPO)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

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.

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 107 or ELI 108 (C or better) OR a minimum CELSA score of 65 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.

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.

Prerequisite: LPO 111 or consent of instructor

LIBERAL ARTS & SCIENCE (LAS)

Educational Affairs Office, Room C206,
(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.

LIBRARY TECHNICAL ASSISTANT (LTA)

Communication Arts, Humanities &
Fine Arts Division, Room B210, (847) 543-2040

LTA 121 Introduction to Library Science (3-0) 3 Hours

This course introduces the field of library science including a history and overview of library types. It provides an overview of library processes, services, personnel, and organization. It also introduces basic types of library materials and bibliography preparation and explores the Library Technical Assistant career.

Prerequisite: Language Proficiency

LTA 210 Library Materials (3-0) 3 Hours

This course examines library collection development in the context of various types of libraries and patrons. It provides a solid background in the skills, resources, and abilities necessary to develop and maintain print, non-print, and special collections suitable to the library's patron base.

Prerequisite: LTA 121 C or better

LTA 212 Technology in Libraries (2-2) 3 Hours

This course introduces the basic technological skills and knowledge necessary for library work. It covers technology in all library departments: circulation, technical services, reference, and administration. Students are also introduced to basic networking technologies, data security principles, and assistive technologies.

Prerequisite: LTA 121 and CIT 120 (both C or better)

LTA 214 Cataloging and Classification (3-0) 3 Hours

This course introduces the basic theories, practices, tools, and techniques of cataloging. It emphasizes descriptive cataloging of book and non-book materials. Students are also introduced to classification and subject cataloging.

Prerequisite: LTA 121 C or better or Consent of Instructor

LTA 230 Library Public Services (3-0) 3 Hours

This course provides an overview of the principles and practices of providing public service to patrons in all types of libraries. It explores public service functions including circulation, interlibrary loan, reserves, information literacy instruction, shelf maintenance, and library security. Students will also learn the basic concepts of customer service, interpersonal relations, team work, and communication.

Prerequisite: LTA 121 C or better

LTA 232 Reference and Information Services (3-0) 3 Hours

This course explores the formats, tools, and practices used in support of library users in Reference services. Students will also learn about user information seeking behavior and expectations. Interpersonal skills in working with patrons are emphasized.

Prerequisite: LTA 121 (C or better)

LTA 234 Readers Advisory Services (3-0) 3 Hours

This course is an overview of the tools, principles, and practices of readers' advisory services. Students will learn how to assist users in identifying materials for viewing and listening, recommend titles of potential interest, and promote the library collection. Popular and classic fiction, non-fiction, and various media are covered. The focus is primarily on service to adults.

Prerequisite: LTA 121 C or better

LTA 250 Children's Library Services (3-0) 3 Hours

This course examines service to children from infancy to young adults as well as their parents, caregivers, and teachers. It covers the evaluation and selection of children's materials in collection development and explores library programming and technology specifically for children. Students are also introduced to grant writing.

Prerequisite: LTA 121 C or better or Consent of Instructor

LTA 252 Administration of the School Library Media Center (3-0) 3 Hours

An introduction to the mission of the school library or media center and the role of the Library Information Specialist. Library resources (print and electronic), collection development, reading promotion, information literacy and technology are all examined. School library standards, particularly in Illinois, and evaluation of services are explored.

Prerequisite: LTA 121 C or better

LTA 274 LTA Workplace and Supervisory Skills (3-0) 3 Hours

This course provides an overview of the principles and practices of library management and supervision. It explores basic concepts including employment laws, leadership qualities, cooperation and collaboration, staff recruitment and evaluation, resource and project management, fundraising, and marketing. Students will also gain an understanding of library policies and procedures, relationships with library governing boards, library vision, mission and goals, and leadership roles for LTAs.

Prerequisite: LTA 121 C or better or Consent of Instructor

LTA 276 Supervised Field Practicum I (0-4) 2 Hours

Supervised observation and directed practice of paraprofessional experience in appropriate academic, special, school, or public libraries. Projects of benefit to the student and to the cooperating library are arranged. Progress toward satisfactory completion is regularly monitored by the LTA Department Chair or designated LTA faculty and the supervising librarian. Students maintain brief descriptive logs. This course is primarily for students pursuing the Certificate in the Library Technical Assistant program.

Prerequisite: Twenty-one hours of LTA courses and consent of LTA department chair.

LTA 278 Supervised Field Practicum II (0-6) 3 Hours

Supervised observation and directed practice of paraprofessional experience in appropriate academic, special, school, or public libraries. Projects of benefit to the student and to the cooperating library are arranged. Progress toward satisfactory completion is regularly monitored by the LTA Department Chair or designated LTA faculty and the supervising librarian. Students maintain brief descriptive logs. This course is primarily for students pursuing the Associate of Applied Science degree in the Library Technical Assistant program.

Prerequisite: Twenty-one hours of LTA courses and consent of LTA department chair.

LTA 299 Special Topics Library Science (Variable) 1-3 Hours

Special topics in the field of library science which are outside of the existing curriculum will be developed. Courses will provide an opportunity for in-depth study of topics pertinent to both technical and public services in public, school, academic, or special libraries. *May be taken three times, but any topic only once*

LIBRARY SCIENCE (LSC)

Communication Arts, Humanities & Fine Arts Division, Room B210, (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.

Prerequisite: Language Proficiency

MACHINE TOOL TRADES (MTT)

Engineering, Math & Physical Sciences Division, Room T102, (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.

Offered fall and spring only.

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.

Course fee

Offered fall and spring only.

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

Offered fall 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.

Course fee

Offered fall only.

Offered even years 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.

Prerequisite: MTT 110

Course fee

Offered spring only.

Offered odd years only.

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.

Prerequisite: MTT 110

Course fee

Offered spring only.

Offered even years only.

Course Information and Descriptions

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.

Prerequisite: MTT 111

Course fee

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.

Prerequisites: MTT 110 and MTT 210

Course fee

Offered spring only.

Offered odd years 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.

Prerequisite: MTT 210 or consent of instructor

Course fee

Offered fall only.

Offered even years 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.

Prerequisites: MTT 115

Course fee

Offered fall only.

Offered odd years only.

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.

Prerequisite: MTT 116

Course fee

Offered fall only.

Offered even years only.

MANUFACTURING TECHNOLOGY (MFG)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

MFG 112 Work Simplification (3-0)

3 Hours

Principles of job analysis and productivity measurement and improvement in techniques used in the work place are discussed and evaluated. Specific techniques studied include motivation and job enrichment, motion and time study, process flow charts and production system evaluation. *Note:* Prior completion of Technical Mathematics I (MTH117) or higher is strongly recommended.

MFG 210 Manufacturing Materials (3-0)

3 Hours

A survey course which covers subjects related to a wide variety of materials used in manufacturing. Includes a development of understanding of the mechanical, physical, electrical and chemical properties of materials. Specific characteristics and processing methods for metals, polymers, ceramics, adhesives and composites will be described.

MFG 215 Manufacturing Analysis (3-0)

3 Hours

Study of manufacturing methods and cost analysis using current principles of manufacturing/industrial engineering technology. Will incorporate a case study approach involving research and analysis of manufacturing related problems by individuals and groups. Topics for study and analysis include: plant layout and material handling, cost and value engineering, quality control, production control, inventory control, methods engineering and time study. *Note:* Final semester standing.

MASSAGE THERAPY (MAS)

Biological & Health Sciences Division,
Room C140, (847) 543-2042

MAS 110 Massage Structure and Functions I (3-0)

3 Hours

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 are related to practical phenomena encountered in massage therapy. Course also covers basic principles of pathology and the major pathological conditions likely to be encountered in massage therapy.

Corequisite: Concurrent enrollment in MAS 131

Course fee

MAS 111 Massage Structure and Functions II (3-0)

3 Hours

Course examines the anatomy and physiology of cells and tissues that underlie the normal functioning of the body. Content focuses on the structure and functions of the major systems of the human body. Anatomic and physiological principles are related to practical phenomena encountered in massage therapy.

Prerequisite: MAS 131, MAS 132, MAS 110, MAS 112 and MAS 114 (all C or better)

Course fee

Course Information and Descriptions

MAS 112 Kinesiology and Palpation I (2-0) 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.
Corequisite: Concurrent enrollment in MAS 131
Course fee

MAS 113 Kinesiology and Palpation II (2-0) 2 Hours
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 begin to address the bony landmarks of the axial skeleton, the core muscles for movement and stability.
Prerequisite: MAS 131, MAS 132, MAS 110, MAS 112 and MAS 114 (all C or better)
Course fee

MAS 114 Massage: Business and Communication I (2-0) 2 Hours
Course covers the basic communications, ethics, and business skills necessary to become a massage therapist.
Prerequisite: MAS 131, MAS 132, MAS 110, MAS 112 and MAS 114 (all C or better)
Course fee

MAS 115 Massage: Business and Communication II (2-0) 2 Hours
Course covers more advanced communication techniques for managing the client-massage therapist relationship. Content also includes principles of professional ethics, and legal and regulatory considerations for a massage therapy business. Journaling is an integral part of the coursework.
Prerequisite: MAS 131, MAS 132, MAS 110, MAS 112 and MAS 114 (all C or better)
Course fee

MAS 131 Massage Therapy I: Swedish (3-2) 4 Hours
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. Midway through the semester, the course includes practicum time during which students perform Swedish Massage on actual clients, under supervision of licensed instructors.
Prerequisite: Language Proficiency
Other: Must be 18 years of age or older and admitted into the Massage program
Course fee

MAS 132 Massage Therapy II: Integrative (3-2) 4 Hours
Course covers various massage therapy topics including fascial web, craniosacral system, foot reflexology, and polarity therapy. Towards the end of the semester, course includes practicum time during which students integrate knowledge and techniques by performing Swedish Massage on actual clients, under supervision of licensed instructors.
Corequisite: Concurrent enrollment in MAS 131
Course fee

MAS 133 Massage Therapy III: Rehabilitative (2-2) 3 Hours
Course combines two therapeutic modalities – Neuromuscular Therapy and Sports Massage Therapy – to assist with fine tuning of massage palpation skills. Content includes both functional assessment and corrective concepts.
Prerequisite: MAS 131, MAS 132, MAS 110, MAS 112 and MAS 114 (all C or better)
Course fee

MAS 134 Massage Therapy IV: Deep Tissue (3-2) 4 Hours
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 blends didactic lecture with hands-on practice.
Prerequisite: MAS 131, MAS 132, MAS 110, MAS 112 and MAS 114 (all C or better)
Course fee

MATH COMPUTER SCIENCE (MCS)

Engineering, Math & Physical Sciences Division,
Room T102, (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.
Prerequisite: MTH 102 (C or better) and Language Proficiency
Course fee

MCS 124 Programming in Basic Language (2-0) 2 Hours
A beginning course in computer programming using the QBASIC language. Machine organization, input, and output, transfer of control, looping, arrays, character strings, subroutines, and sequential files are the major topics.
Prerequisite: MTH 102 (C or better) or an appropriate score on the Math Placement Test
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.
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

Course Information and Descriptions

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.

Prerequisite: MTH 108 (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.

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

Offered spring only.

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.

Prerequisite: MCS 142 (C or better)

Course fee

MATHEMATICS (MTH)

Engineering, Math & Physical Sciences Division,
Room T102, (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. Specific calculator required. Contact EMPS division office for referral or additional information.

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.

May be taken four times, but any topic only once

MTH 102 Basic Algebra (4-0)

4 Hours

For those students whose interests lie in areas requiring a working knowledge of elementary algebra. Content mainly concerned with the manipulative skills of elementary algebra. Practical applications (story problems) will be introduced throughout. A specific graphics calculator may be required for this course. Contact the EMPS division office for details. This course does not apply to any associate degree or career certificate program.

Prerequisite: MTH 101 (C or better) or Basic Algebra Readiness

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.

Prerequisite: MTH 102 (C or better) or appropriate score on Math Placement Test or Math ACT of 22 or higher.

MTH 108 Intermediate Algebra (4-0)

4 Hours

This course continues the development of the number system to include irrational and complex numbers. Equations, graphs, and inequalities involving linear and quadratic functions are emphasized. Exponential and logarithmic functions and sequences are introduced. This course is for students who need College Algebra (MTH 122) or a course of comparable difficulty in their curriculum but do not meet the prerequisite. *Note:* This course does not apply to any associate degree or career certificate. A specific graphing calculator is required for this course. Contact the EMPS division office for details.

Prerequisite: MTH 102 with a grade of 'C' or above or an appropriate score on the Math Placement Test or Math ACT of 22 or higher.

MTH 114 Applied Mathematics I (3-0)

3 Hours

Basic principles of mathematics are studied, with application to typical shop problems. Review of fractions, decimals, ratios, proportions, and percent. Introductory algebra, measuring systems, precision, and accuracy. *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.

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. Check with the EMPS Division office for details.

Prerequisite: MTH 114 or MTH 102 (C or better) or appropriate score on the Math Placement Test or Math ACT of 22 or higher.

Offered fall and spring only.

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.

Prerequisite: MTH 114 or MTH 102 (C or better) or appropriate score on the Math Placement Test or Math ACT of 22 or higher.

Offered fall and spring only.

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. Specific graphing calculator required for this course. Contact EMPS division office for details.

Prerequisite: MTH 117 with a grade of 'C' or above, or an appropriate score on the Math Placement Test or Math ACT of 25 or higher.

Offered spring only.

MTH 121 Mathematics for Elementary**Teaching I (3-0)****3 Hours**

This course is principally designed as the first course for elementary education majors. Topics include problem solving, sets, logic, functions, numeration systems, real number system, and number theory. *Note:* Use of a specific graphing calculator will be integrated throughout the course.

Prerequisites: MTH 104 (C or better) or one year of High School Geometry (C or better); AND MTH 108 (C or better), or appropriate score on Math Placement Test, or Math ACT of 22 or higher.

MTH 122 College Algebra (4-0)**4 Hours**

This course covers topics that include matrices, systems of equations, inequalities, absolute values, logarithmic and exponential functions, theory of equations, binomial theorem, progressions, and mathematical induction. This course is designed for students who need to continue in mathematics with a goal of higher math courses. *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 college students seeking the AA or AFA degrees.

Prerequisites: MTH 104 (C or better) or one year of High School Geometry (C or better); AND MTH 108 (C or better), or appropriate score on Math Placement Test, or Math ACT of 25 or higher.

MTH 123 Trigonometry (3-0)**3 Hours**

This course covers topics that include trigonometric functions and their graphs, identities, trigonometric equations, DeMoivre's Theorem, complex numbers, conic sections, and practical applications. This course is designed for students who need to continue in mathematics with a goal of higher math courses. *Note:* A specific graphing calculator is required for this course. Contact EMPS division office for details.

Prerequisite: MTH 122 with a grade of "C" or above or concurrent enrollment in MTH 122 or an appropriate score on the Math Placement Test or Math ACT of 28 or higher.

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 EMPS division office for details.

Prerequisite: MTH 122 (C or better) or appropriate score on the Math Placement Test or Math ACT of 28 or higher.

IAI: M1 906

MTH 140 Contemporary Mathematics (3-0)**3 Hours**

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: Use of a specific electronic graphics calculator will be integrated throughout the course.

Prerequisites: MTH 104 (C or better) or one year of High School Geometry (C or better); AND Basic Algebra Readiness; AND MTH 108 (C or better), or appropriate score on Math Placement Test, or two years of High School Algebra (C or better), or Math ACT of 22 or higher.

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 EMPS division office for details.

Prerequisites: MTH 104 (C or better) or one year of High School Geometry (C or better); AND Basic Algebra Readiness; AND MTH 108 (C or better), or appropriate score on Math Placement Test, or two years of High School Algebra (C or better), or Math ACT of 22 or higher.

IAI: M1 901

Course Information and Descriptions

MTH 144 Precalculus (5-0) 5 Hours

This course is primarily for students who intend to take calculus. Topics include problem solving with equations, functions, polynomials, exponential functions, logarithmic functions, trigonometric functions, law of sines, law of cosines, trigonometric identities and equations, systems of equations and inequalities, parabolas, ellipses, hyperbolas, sequences and series, mathematical induction, and the binomial theorem. *Note:* A specific graphing calculator is required for this course. Contact EMPS division office for details. Students who earn a grade lesser than B in MTH 108 must complete MTH 122 and MTH 123 as a prerequisite for MTH 145 (Calculus and Analytic Geometry I).

Prerequisites: MTH 104 (C or better) or one year of High School Geometry (C or better); AND MTH 108 (C or better), or appropriate score on Math Placement Test, or Math ACT of 25 or higher.

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 EMPS division office for details. *Prerequisite:* MTH 123 (C or better) or MTH 144 (C or better) or appropriate score on Math Placement Test or Math ACT of 28 or higher.

IAI: M1 900-1, MTH 901

MTH 146 Calculus and Analytic Geometry II (4-0) 4 Hours

MTH 146 is a continuation of MTH 145. This course covers techniques of integration, applications of integration, differential equations, parametric equations, polar coordinates and infinite sequences and series. *Note:* A specific graphing calculator is required for this course. Contact the EMPS division office for details.

Prerequisite: MTH 145 (C or better) or consent of instructor

IAI: M1 900-2, MTH 902

MTH 221 Mathematics for Elementary Teaching II (3-0) 3 Hours

Principally designed as the second course for elementary education majors. Topics include probability, statistics, modeling, variation, plane and solid geometry, measurement, similarity and congruence, geometric constructions, areas, volume, classroom manipulatives, and/or computer software. *Note:* Use of a specific graphing calculator will be integrated throughout the course.

Prerequisite: MTH 121 (C or better).

IAI: M1 903

MTH 222 Elementary Statistics (4-0) 4 Hours

This course covers the application of elementary principles of probability, descriptive statistics, an introduction to inferential statistics and elementary computer techniques. A specific graphing calculator is required for this course. Contact EMPS division office for details.

Prerequisites: MTH 104 (C or better) or one year of High School Geometry (C or better); AND MTH 108 (C or better), or appropriate score on Math Placement Test, or Math ACT of 25 or higher.

IAI: M1 902

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 EMPS division office for details.

Prerequisite: MTH 122 (C or better) or MTH 144 (C or better) or appropriate score on Math Placement Test or Math ACT of 28 or higher.

Offered spring and summer only

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 the junior-senior level. Computer software will be integrated as appropriate. *Note:* A specific graphing calculator is required for this course. Contact EMPS division office for more details.

Prerequisite: MTH 146 (C or better) or consent of instructor

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 that features modeling and graphical visualization as central themes. *Note:* Computer software and graphing calculators are integrated into the course where appropriate.

Prerequisite: MTH 146 (C or better)

Offered fall and spring only.

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 EMPS division office for details.

Prerequisite: MTH 122 (C or better) or appropriate score on Math Placement Test or Math ACT of 28 or higher.

Offered spring only.

IAI: M1 905, CS 915

MTH 246 Calculus and Analytic Geometry III (4-0) 4 Hours

MTH 246 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 EMPS Division office for details. Prerequisite may also be met with instructor's consent.

Prerequisite: MTH 146 (C or better) or consent of the instructor

IAI: M1 900-3, MTH 903

MECHANICAL ENGINEERING TECHNOLOGY (MET)

Engineering, Math & Physical Sciences Division,
Room T102, (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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: MET 112

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.

Prerequisite: CELSA score of 50 or higher, OR APT score of 80 or higher, OR ELI 103 (C or better), OR ELI 104 (C or better), OR ELI 107 (C or better), OR Language Proficiency 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.

Prerequisite: CELSA score of 50 or higher, OR APT score of 80 or higher, OR ELI 103 (C or better), OR ELI 104 (C or better), OR ELI 107 (C or better), OR Language Proficiency 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.

Prerequisite: CELSA score of 50 or higher, OR APT score of 80 or higher, OR ELI 103 (C or better), OR ELI 104 (C or better), OR ELI 107 (C or better), OR Language Proficiency 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.

Prerequisite: CELSA score of 50 or higher, OR APT score of 80 or higher, OR ELI 103 (C or better), OR ELI 104 (C or better), OR ELI 107 (C or better), OR Language Proficiency 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.

Prerequisite: EGR 216 (C or better) or Consent of Instructor

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.

Prerequisite: Language Proficiency 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.

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.

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.

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness
Recommended: MTH 117 (C or better)

Course Information and Descriptions

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.

Prerequisite: MET 131 (C or better) or Consent of Instructor

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.

Prerequisite: To be determined relative to topic

May be taken four times, but any topic only once

MEDICAL ASSISTING (MOA)

Biological & Health Sciences Division,
Room C140, (847) 543-2042

MOA 111 Clinical Medical Assisting I (3-2) 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.

Prerequisite: Language Proficiency and Consent of Instructor

Corequisite: HIT 119 and MOA 112

Course fee

MOA 112 Basic Medical Office and Billing Procedures (2-4) 4 Hours

Provides students with a foundation of knowledge and skills in the front office of a medical or dental office. Introduces 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. Student must be basic keyboard proficient.

Prerequisite: Language Proficiency 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 & 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.

Prerequisite: HIT 111 (C or better)

Corequisite: BIO 111

Course fee

MOA 211 Clinical Medical Assisting II (3-2) 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.

Prerequisite: MOA 111 (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.

Prerequisite: Consent of Instructor

Corequisite: MOA 211 (C or better)

MEDICAL IMAGING (MIM)

Biological & Health Sciences Division,
Room C140, (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.

Prerequisite: Language Proficiency 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.

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.

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.

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.

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.

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.

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.

Prerequisite: Admission to the Medical Imaging Program

Corequisites: MIM 111 and MIM 112

Course fee

MIM 175 Clinical Education Practicum (3-0) 3 Hours

Supervised competency based clinical practice for those individuals returning to the Medical Imaging program.

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.

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.

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.

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.

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.

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.

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 pararadiologic 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.

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.

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.

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.

Prerequisite: MIM 211 and MIM 212 (C or better in both)

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.

Prerequisite: Admission to the MRI Program

Course Information and Descriptions

MIM 252 CT Physics, Instrumentation, and Procedures I (3-0)

3 Hours

This course introduces the student to the principles of computed tomography, the equipment used to produce the CT image, scanning procedures and application. Topics include data acquisition and manipulation, system design and operations, image processing and display. Imaging procedures of the central nervous, respiratory, digestive, cardiovascular and urinary systems are presented with safety and legal considerations, venipuncture and contrast media. *Prerequisite:* Registered Radiologic Technologists by ARRT in radiography or radiation therapy, by ARRT or NMTCB in nuclear medicine technology or registry-eligible graduates of a Medical Imaging program

Corequisites: MIM 256 and MIM 273

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.

Prerequisite: Admission to the MRI Program

MIM 254 CT Physics, Instrumentation, and Procedures II (3-0)

3 Hours

This course introduces CT scanning procedures and application. Scanning parameters and patient care will be emphasized for examination of the head and neck, spine, thorax, abdomen/pelvis, musculoskeletal, interventional, and special procedures. Radiographic critiques and quality assurance will also be emphasized.

Prerequisites: Registered Radiologic Technologist in radiography or radiation therapy (ARRT), in nuclear medicine technology (ARRT or NMTCB), or registry-eligible graduate of a Medical Imaging program, and MIM 252, 256 and 273 (C or better in each)

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.

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 central nervous, respiratory, digestive, urinary and cardiovascular systems.

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 musculoskeletal and reproductive systems. Trauma imaging of the central nervous, respiratory, cardiovascular, digestive, urinary, musculoskeletal and reproductive systems is also presented.

Prerequisites: Registered Radiologic Technologist in radiography or radiation therapy (ARRT), in nuclear medicine technology (ARRT or NMTCB), or registry-eligible graduate of a Medical Imaging program, and MIM 252, 256 and 273 (C or better in each)

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.

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.

Prerequisite: Admission to the MRI Program

Course fee

May be taken twice for a maximum of 6 credit hours for credit toward degree

MIM 273 CT Practicum I (0-5)

1 Hour

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.

Course fee

May be taken twice for credit toward degree

MIM 274 CT Practicum II (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.

MEDICAL LABORATORY TECHNOLOGY (MLT)

See Phlebotomy Technician (PBT) on page 279.

MUSIC (MUS)

Communication Arts, Humanities & Fine Arts Division, Room B210, (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.

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.

MUS 122 Voice Class II (1-1)

1 Hour

Introduction to singing techniques with emphasis on repertoire. A continuation of MUS 121.

Prerequisite: MUS 121

Course Information and Descriptions

MUS 123 Wind Ensemble (0-2)	1 Hour	MUS 143 Applied Music Piano I (Variable)	1-2 Hours
Understanding and enjoyment of instrumental music through selected examples of standard instrumental ensemble literature of all periods.		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. <i>Note:</i> 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.	
<i>May be taken four times for credit toward degree</i>		<i>Course fee</i>	
MUS 124 Introduction to Music (3-0)	3 Hours	<i>May be taken 4 times for a maximum of 4 hours toward degree</i>	
A non-technical listening course emphasizing recognition and understanding of various styles of serious music, past and present. <i>IAI: F1 900</i>			
MUS 126 Music Skills for Classroom Teachers (3-0)	3 Hours	MUS 144 Applied Music Jazz Piano I (Variable)	1-2 Hours
An introduction to basic instrumental and vocal skills for use in general teaching. Intended for non-music majors.		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. <i>Note:</i> 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.	
<i>Course fee</i>		<i>May be taken 4 times for a maximum of 4 hours toward degree</i>	
MUS 127 Fundamentals of Music (2-0)	2 Hours	MUS 145 Piano Class I (1-1)	1 Hour
Provides background to understand language of music of various style periods. Study of notation, rhythm, scales, intervals, chords, and musical terms using keyboard as an aid. Preparation for MUS 128 and a practical course for classroom teachers. <i>Note:</i> Students should combine this course with Piano Class I (MUS 145, 1 credit 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. <i>Note:</i> Students should combine this course with Fundamentals of Music (MUS 127).	
<i>Course fee</i>		<i>Course fee</i>	
MUS 128 Theory of Music I (4-0)	4 Hours	MUS 146 Piano Class II (1-1)	1 Hour
A concentrated study of musical language including analysis, recognition, and writing of chords and harmonic progressions. Ear-training and sight-reading are also offered. <i>Note:</i> Students without keyboard background should combine this course with Piano Class I (MUS 145). Students who do not read notes or basic rhythms and do not know scales and keys should take Fundamentals of Music (MUS 127) prior to entering this course.		A continuation of MUS 145. Provides additional opportunity for study and practice of more advanced compositions for piano. <i>Prerequisite:</i> MUS 145	
<i>Prerequisite:</i> MUS 128		<i>Course fee</i>	
MUS 129 Theory of Music II (4-0)	4 Hours	MUS 147 Guitar Class I (1-1)	1 Hour
Written four-part harmony, analysis of form and harmony, dominant #7 chord and continuation of ear training. Continuation of MUS 128.		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. <i>Note:</i> MUS 127 Fundamentals of Music is strongly recommended as a companion course for students who need work in reading pitches and rhythms.	
<i>Prerequisite:</i> MUS 128		<i>Course fee</i>	
MUS 140 20th Century Music (3-0)	3 Hours	MUS 148 Guitar Class II (1-1)	1 Hour
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.		A continuation of MUS 147. It develops and advances skills learned and introduces new concepts and techniques. <i>Prerequisite:</i> MUS 147	
<i>Prerequisite:</i> MUS 127		<i>Prerequisite:</i> MUS 147	
MUS 141 Applied Music-Voice I (Variable)	1-2 Hours	MUS 149 Ear-training and Sight-singing II (0-2)	1 Hour
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. <i>Note:</i> 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.		This course is a continuation of MUS 142 and provides further instruction in ear-training and sight-singing (reading, writing, and performing music at first sight). Students will be expected to build off the skills developed in MUS 142 leading to musical diction and advanced notation.	
<i>Course fee</i>		<i>Prerequisite:</i> MUS 142	
<i>May be taken 4 times for a maximum of 4 hours toward degree</i>			
MUS 142 Ear-training and Sight-singing I (0-2)	1 Hour	MUS 160 Applied Music - Violin I (Variable)	1-2 Hours
This course introduces students to the development of listening skills and sight-singing, which is the ability to read and perform music at first sight. Through graduated written exercises, students will be expected to develop skills of aurally and visually recognizing, writing, and singing rhythms, intervals, and melodies. <i>Prerequisite:</i> MUS 127 or consent of instructor		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. <i>Note:</i> 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.	
<i>Prerequisite:</i> MUS 127 or consent of instructor		<i>Course fee</i>	
<i>May be taken 4 times for a maximum of 4 hours toward degree</i>		<i>May be taken 4 times for a maximum of 4 hours toward degree</i>	

MUS 183 Applied Music Trombone 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.

Course fee

May be taken 4 times for a maximum of 4 hours toward degree

MUS 184 Applied Music Baritone Horn 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.

Course fee

May be taken 4 times for a maximum of 4 hours toward degree

MUS 185 Applied Music Tuba 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.

Course fee

May be taken 4 times for a maximum of 4 hours toward degree

MUS 186 Applied Music-Percussion 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.

Course fee

May be taken 4 times for a maximum of 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.

Course fee

May be taken 4 times for a maximum of 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.

Course fee

May be taken 4 times for a maximum of 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.

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.

Prerequisite: MUS 128

IAI: F1 902

MUS 228 Theory of Music III (4-0) 4 Hours

Continuation of MUS 129. Advanced study of musical language including chromatic chords, seventh chords, and modulation.

Prerequisite: MUS 129

MUS 229 Theory of Music IV (4-0) 4 Hours

Continuation of MUS 228. Twentieth Century musical techniques are considered.

Prerequisite: MUS 228

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.

Course fee

May be taken 4 times for a maximum of 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.

Course fee

May be taken 4 times for a maximum of 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.

Course fee

May be taken 4 times for a maximum of 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.

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.

Prerequisite: MUS 245

Course fee

NANOSCIENCE TECHNOLOGY (NAN)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

NAN 121 Fundamentals of Nanoscience I (2-2) 3 Hours

This course studies the field of nanotechnology, 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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

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.

Prerequisite: NAN 121 (C or better)

NURSING (NUR)

Nursing Education, Room D208, (847) 543-2043

NUR 110 Nurse Assisting (6-3) 7 Hours

Meets state requirements for preparation for employment in long-term care facilities. Participants must be at least 16 years of age, must speak and read English, and have at least an 8th grade education. The lecture portion of the course is held at the Lakeshore Campus or the Grayslake Campus, depending upon the section in which the student is enrolled. Clinical training for all students will be held on selected days throughout the course at various long-term care facilities in the community. Attendance at each scheduled class and clinical laboratory is mandatory. Students who fail to attend the first day of class will not be allowed to continue in the course AND MUST OFFICIALLY WITHDRAW THEMSELVES from the course by the refund dates listed in the current class schedule in order to cancel their financial obligations. The State of Illinois requires a UCIA Criminal Background Check on all enrolled students. Upon successful completion of this course, the student will be eligible to take the state mandated written competency examination for Nurse Assistant Certification.

Prerequisite: Language proficiency or high school diploma or GED; or Adult Education reading test or Basic Skills Assessment Test ; or ELI 104, ENG 108, ENG 109, ENG 120 or ENG 121; and 16 years of age.
Course fee

NUR 132 Pharmacology for Nurses (1-0) 1 Hour

The course introduces the pharmacodynamics and pharmacokinetics for medications. The course will focus on drug classifications and actions and interactions in addition to medication calculations. The course will also focus on the safe administration of medications and patient care associated with medication administration.

Prerequisites: Admission to the Associate Degree Program in Nursing

NUR 133 Foundational Concepts of Nursing Practice (4-9) 7 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 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.

Corequisite: NUR 132 and BIO 125 and BIO 245 (or BIO 124)

Note: If any corequisite has previously been taken, a grade of C or better is required

Course fee

NUR 134 Medical Surgical Nursing (4-15) 9 Hours

This course builds upon NUR 132 and 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.

Prerequisite: NUR 132, NUR 133, BIO 125 and BIO 245 (formerly part of BIO 124) (all C or better)

Corequisite: PSY 220

Course fee

NUR 171 Nursing: Universal Self-Care (3-12) 7 Hours

Introduces the nursing process and assessment of universal self-care demands, abilities and limitations. Presents helping methods of doing, supporting, guiding, teaching, and providing a developmental environment in the campus and clinical laboratory. Focuses on clinical decision making and interventions specific to universal self-care of clients who have moderate limitations. Introduces the health care system and professional nurse behaviors. Case-based instruction, small group discussion, and mastery learning techniques are used. Proficiency examinations are available.

Prerequisites: Admission to the Associate Degree Program in Nursing

Course fee

NUR 172 Nursing: Developmental Self-Care (3-12) 7 Hours

Builds upon NUR 171 and focuses on assessment of developmental self-care and common hazards to life and well-being. Gives attention to client support systems and caregiver concerns. Emphasizes applying the nursing process using helping methods for clients with moderate self-care agency limitations in the campus and clinical laboratory. Focuses on clinical decision making and interventions specific to client's developmental stage and age. Provides participation in client centered conferences and collaboration with other health care workers. Case-based instruction, small group discussion and mastery learning techniques are used. Proficiency examinations are available.

Prerequisite: NUR 171 and BIO 124 (C or better in both)

Course fee

NUR 232 Mental Health Nursing (2-3) 3 Hours

This course expands the use of therapeutic communication in all populations. The course focuses on utilization of the nursing process and providing safe care to individuals with acute and chronic mental health conditions.

Prerequisite: NUR 134 (C or better)

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.

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.

Prerequisite: NUR 232 and NUR 233 (C or better)

Course fee

NUR 271 Nursing: Health-Deviation Self-Care I (3-18) 9 Hours

Builds upon NUR 172, and focuses on assessment of health-deviation self-care demands and responses to acute and chronic health problems. Includes the impact of health deviation on universal self-care and developmental self-care for client and families in the health care system. Focuses on clinical decision making, helping methods and interventions for clients with moderate to severe self-care agency limitations. Provides opportunity to work collaboratively in client care planning. Case-based instruction, small group discussion, and mastery learning techniques are used.

Proficiency examinations are available.

Prerequisite: NUR 172 and BIO 125 (C or better in each) - AND - CMM 127

Course fee

NUR 272 Nursing: Health-Deviation Self-Care II (3-18) 9 Hours

Builds upon NUR 271 and focuses on assessment of health deviation self-care demands and responses to multiple and complex health problems. Includes clinical decision making and care planning for health deviation requiring acute, long term and chronic care management. Applies the nursing process, helping methods and interventions in the campus and clinical laboratory. Provides opportunity to participate in community support groups and client centered care conferences. Introduces research in nursing. Addresses issues and opportunities faced in transition to practice as a registered nurse. Case-based instruction, small group discussion, and mastery learning techniques are used.

Prerequisite: NUR 271 (C or better)

Course fee

PARALEGAL STUDIES (PLS)

Business Division, Room T102, (847) 543-2041

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.

Prerequisite: Language Proficiency

PLS 111 Drafting Legal Documents (3-0) 3 Hours

Course provides 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.

Prerequisite: PLS 110

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.

Prerequisite: PLS 110

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.

Prerequisite: PLS 110

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.

Prerequisite: PLS 110

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.

Prerequisite: PLS 110

Course Information and Descriptions

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.

Prerequisite: PLS 110

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.

Prerequisite: PLS 110 or BUS 221

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's 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.

Prerequisite: PLS 110

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, who can stay in, and who has to leave, the United States—including a brief history of immigration law. It also trains paralegals how 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.

Prerequisite: PLS 110 (C or better)

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.

Prerequisite: PLS 110

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.

Prerequisite: PLS 110

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's 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's role in alternative dispute resolution/mediation processes.

Prerequisite: PLS 110

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.

Prerequisite: PLS 110 and PLS 114 (C or better)

Recommended: PLS 210 and PLS 214

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.

Prerequisite: PLS 110

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.

Prerequisite: PLS 110

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's 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, and age discrimination. Topics of discussion will also include guardianship, 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.

Prerequisite: PLS 110

Course Information and Descriptions

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.

Prerequisite: PLS 110 AND AOS 112 or CIT 119 or CIT 120

Course fee

PLS 250 Internship/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 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.

Prerequisites: PLS 110 C or better, and PLS 112 C or better, and PLS 114 C or better, and Consent of Instructor

PLS 299 Topics in Paralegal Studies (Variable) 1-4 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. This course may be repeated for up to a total of six credit hours.

May be taken twice for credit toward degree

PERSONAL DEVELOPMENT (PDS)

Counseling Center, Room C110, (847) 543-2060

PDS 120 Becoming A Successful Student (Variable) 1-2 Hours

This course is designed to train students in attitudes and skills valuable for school success, such as goal setting, time management, memory development, notetaking, textbook reading strategies, test taking, library use, school resources, motivation, stress management, and test and speech anxiety. This course involves extensive reading and homework assignments since intensive practice is required for mastery. One credit hour options are offered on special topics such as test or speech anxiety.

Prerequisite: Language Proficiency

OR Corequisite: ENG 108 or ENG 109 or ELI 108

May be taken four times, but any topic only once

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.

Prerequisite: CELSA score of 50 or higher OR APT score of 80 or higher OR ELI 103 OR ELI 104 OR ELI 107 OR Language Proficiency.

PDS 122 Career Exploration (1-0) 1 Hour

This course teaches students how to engage in a comprehensive career planning process. The course focuses primarily on the exploration phase of this process. Students will examine their interests, values, personality traits, skills and experiences. Students will examine information about the world of work including researching occupations, identifying and examining career clusters or job families, occupational trends, education and training requirements and, job search strategies. Students are expected to synthesize what they have learned and develop a plan of action at the end of the course.

Prerequisite: CELSA score of 50 or higher OR APT score of 80 or higher OR ELI 103 OR ELI 104 OR ELI 107 OR Language Proficiency.

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.

*Prerequisite: Language Proficiency or consent of instructor
This course fulfills the CLC International/Multicultural Education requirement*

PHILOSOPHY (PHI)

Communication Arts, Humanities & Fine Arts Division, Room B210, (847) 543-2040

PHI 121 Introduction to Philosophy (3-0) 3 Hours

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.

Prerequisite: Language Proficiency

IAI: H4 900

PHI 122 Logic (3-0) 3 Hours

Formal reasoning, including categorical and symbolic modes of analysis. Covers Venn diagrams, predicate logic, rules of inference and replacement. Introduces the inductive method and the problem of induction.

Prerequisite: Language Proficiency

IAI: H4 906

PHI 123 Philosophy of Religion (3-0) 3 Hours

A study of selected religious concepts and theories, such as the existence of God, the nature of good and evil, faith and reason, ethics and the afterlife. May include an examination of the nature of religious language and experience.

Prerequisite: Language Proficiency

IAI: H4 905

PHI 125 Introduction to Ethics (3-0) 3 Hours

Discussion of contemporary moral issues which may include sexual morality, homosexuality, women's rights, animal rights, environmental ethics, abortion, euthanasia, nuclear war, famine and population. An attempt is made to find solutions to these problems in terms of ethical theory.

Prerequisite: Language Proficiency

IAI: H4 904

PHI 126 World Religions (3-0) 3 Hours

Introduction to the teachings, rituals, symbols, and cultures of living world religions. Hinduism, Buddhism, Confucianism, Taoism, Shintoism, Judaism, Christianity, Islam and the religions of Africa and Native America may be included.

Prerequisite: Language Proficiency

IAI: H5 904N

PHI 128 Introduction to Social and Political Philosophy (3-0) 3 Hours

This course will discuss major social and political theories of justice, the exercise of power, equality, liberty, the private sphere vs. the public sphere, law, order, rights and duties. In addition, the course will explore the practical application of social and political theories to contemporary issues such as war and peace, human rights, and capital punishment.

Prerequisite: Language Proficiency

PHI 129 Philosophy of Gender (3-0) 3 Hours

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.

Prerequisite: Language Proficiency

This course fulfills the CLC International/Multicultural Education requirement

PHI 221 Asian Philosophy (3-0) 3 Hours

This course provides an introduction to the influential ideas and thinkers of India, China, and Japan. We will cover a wide range of philosophical theories regarding the self, reality, knowledge, and aesthetics.

IAI: H4 903N

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.

May be taken four times for credit toward degree

PHLEBOTOMY TECHNICIAN (PBT)

Biological & Health Sciences Division,
Room C140, (847) 543-2042

(Previously Medical Laboratory Technology - MLT)

PBT 110 Introduction to Medical Lab Technology (1-2) 2 Hours

(Previously MLT 110) 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.

Prerequisites: Language Proficiency and Basic Algebra Readiness and a cumulative GPA of 2.0 or above for any credit courses completed at CLC.

Course fee

PBT 115 Phlebotomy Techniques (1-2) 2 Hours

(Previously MLT 115) 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.

Prerequisite: PBT 110 (C or better)

Course fee

PBT 116 Clinical Phlebotomy (0-7) 2 Hours

(Previously MLT 116) 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. It 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.

Prerequisite: PBT 110 and PBT 115 (C or better in both)

Course fee

PHYSICAL EDUCATION (PED)

Biological & Health Sciences Division,
Room C140, (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.

Prerequisite: CELSA score of 50 or higher OR APT score of 80 or higher OR ELI 103 OR ELI 104 OR ELI 107 OR Language Proficiency. *Note:* No more than 4 credit hours earned in PED 121 and/or PED 127 counts toward an associate degree.

Course fee

May be taken four times for credit toward degree

Course Information and Descriptions

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. <i>Note:</i> 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. <i>May be taken four times for credit toward degree</i>	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. <i>Prerequisite:</i> Language Proficiency
PED 127 Restricted Activity (0-2) 1 Hour Fitness or recreation activities for students restricted by health limitations. Includes individual programs adapted to meet specific requirements. Consult the class schedule for sports offered during a particular semester. <i>Note:</i> No more than 4 credit hours earned in PED 121 and/or PED 127 counts toward an associate degree. <i>May be taken four times for credit toward degree</i>	PED 222 Coaching Strategies in Basketball (2-0) 2 Hours A professional course in physical education with emphasis on coaching philosophy, techniques, and strategies. Methods of teaching individual skills, organization of practice session, and an understanding of offensive and defensive team strategies will be covered. <i>Prerequisite:</i> Language Proficiency
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. <i>Note:</i> Students will spend lab time in local park districts during the second half of the semester. <i>Prerequisite:</i> Language Proficiency	PED 223 Coaching Strategies in Football (2-0) 2 Hours This course is designed to instruct students in the basic offensive and defensive schemes, terminologies, scouting "break-down" and analyses, special teams, offensive and defensive philosophies, and staff hiring practices. <i>Prerequisite:</i> Language Proficiency
PED 129 Fundamentals of Youth Programming (4-0) 4 Hours This course takes you through childhood behavior and development, indoor and outdoor group relationships, and creative learning experiences. Outdoor and indoor events are required. Class projects will be graded according to the requirements of the project, and additional class time will be needed. Equipment will be provided for each event. For students going into a career in physical education, recreation, pre-school teaching, elementary education, social work, or voluntary agencies. <i>Note:</i> Expenses for group projects (\$35-\$50) assumed by the students. <i>Prerequisite:</i> Language Proficiency	PED 224 Coaching Strategies in Baseball (2-0) 2 Hours A professional course in physical education with emphasis on coaching philosophy, techniques and strategies. Methods of teaching individual skills, organization of practice sessions, and an understanding of offensive and defensive team strategies will be covered. <i>Prerequisite:</i> Language Proficiency
PED 148 Recreation Operations (3-0) 3 Hours An introductory course involving the organizational, management, and administrative aspects of conducting recreational programs and activities. <i>Prerequisite:</i> Language Proficiency	PED 225 Officiating (1-0) 1 Hour Instruction, practice and examination of officiating or judging techniques for the following sports: men's football, women's basketball, badminton, field hockey, men's basketball, swimming, volleyball, track and field, softball, gymnastics, and tennis. <i>Prerequisite:</i> Language Proficiency <i>May be taken four times for credit toward degree</i>
PED 149 Leisure Sports and Activities (1-2) 2 Hours An introductory course to discuss, demonstrate, and practice the skills and techniques of various types of recreational games and sports. <i>Prerequisite:</i> Language Proficiency	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. <i>Prerequisite:</i> CELSA score of 50 or higher OR APT score of 80 or higher OR ELI 103 OR ELI 104 OR ELI 107 OR Language Proficiency.
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. <i>Note:</i> Students will spend lab time in local elementary schools during the second half of the semester. <i>Prerequisite:</i> Language Proficiency	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. <i>Note:</i> No more than 3 credit hours may count toward an associate degree. <i>May be taken twice, but any topic only once</i>
PED 240 Coaching Strategies in Softball (2-0) 2 Hours A professional course in physical education with emphasis on coaching philosophy, techniques and strategies. Methods of teaching individual skills, organization of practice sessions, and an understanding of offensive and defensive team strategies will be covered. <i>Prerequisite:</i> Language Proficiency	

PED 241 Coaching Strategies in Volleyball (2-0) 2 Hours

A professional course in physical education with emphasis on coaching philosophy, techniques and strategies. Methods of teaching individual skills, organization of practice sessions, and an understanding of offensive and defensive team strategies will be covered.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

PED 248 Fieldwork in Recreation (1-20) 4 Hours

Gives students the learning experience of working in public and private recreation programs. This on-the-job training in Lake County recreation agencies provides students with the opportunity to demonstrate acquired recreation skills and knowledge and to continue to develop as a professional recreation person. Includes group seminar sessions with other students and regular meetings with the CLC instructor/supervisor.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

PED 271 Exercise Physiology (3-0) 3 Hours

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.

Prerequisite: Language Proficiency

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.

Prerequisite: PED 270 and PED 271 (both C or better)

PHYSICS (PHY)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

PHY 111 Technical Physics I (3-2) 4 Hours

Study of mechanics and basic properties of matter. Topics covered include forces, motion, work, energy, harmonic motion, elasticity, waves and sound.

Prerequisite: Language Proficiency and MTH 102 or MTH 115
Course fee

PHY 112 Technical Physics II (3-2) 4 Hours

Study of temperature, heat thermodynamics, electricity, magnetism, and optics with an introduction to modern physics. Major topics are electric and magnetic fields, electric circuits, properties of waves, lenses, mirrors, diffraction, photons, and structure of matter.

Prerequisite: PHY 111
Course fee

PHY 120 Practical Aspects of Physics (3-2) 4 Hours

One semester lecture-discussion course supplemented with demonstrations and laboratory designed primarily for non-science students. Stresses some fundamental concepts in physics as applied to everyday situations. Verbal rather than mathematical approach emphasized.

Prerequisite: Language Proficiency and Basic Algebra Readiness
Course fee

IAI: P1 901L

PHY 121 General Physics I (4-2) 5 Hours

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.

Prerequisites: MTH 108 (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 - Language Proficiency
Course fee

IAI: P1 900L

PHY 122 General Physics II (4-2) 5 Hours

Second course in a two semester sequence. Basic concepts of heat, thermodynamics, electricity, magnetism, optics and modern physics are developed.

Prerequisite: PHY 121
Course fee

PHY 123 Physics for Science and Engineering I (4-2) 5 Hours

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.
Prerequisite: MTH 145
Course fee

Offered fall and spring only.

IAI: P2 900L

Course Information and Descriptions

PHY 124 Physics for Science and Engineering II (4-2) 5 Hours

Second course in a three semester sequence. Fundamental concepts of heat, electricity, and magnetism are developed.

Prerequisite: PHY 123 and MTH 146

Course fee

Offered fall and spring only.

PHY 221 Physics for Science and Engineering III (3-2) 4 Hours

Third course in a three semester sequence. Fundamental concepts of waves, sound, optics, and modern physics developed.

Prerequisite: PHY 124

Course fee

Offered summer only.

POLITICAL SCIENCE (PSC)

Social Science Division, Room A244, (847) 543-2047

PSC 121 American National Politics (3-0) 3 Hours

This course covers the structures and processes of the federal government. It includes the organization, powers, and responsibilities of the branches of government as contained in the Constitution, the interrelationships among the branches of government, and the factors which influence the policymaking process.

Prerequisite: Language Proficiency

IAI: S5 900

PSC 122 State & Local Politics (3-0) 3 Hours

This course is a survey of governmental structures and political processes in American state and local governments with emphasis on powers, responsibilities, and political behavior of decision-makers at state and local levels.

Prerequisite: Language Proficiency

IAI: S5 902

PSC 221 Comparative Political Systems (3-0) 3 Hours

This course is a study of various governmental systems: democracy, socialism, communism, theocracy, and fascism. Selected countries and the United Nations will be analyzed to familiarize students with the theories and types of these governmental units.

Prerequisite: Language Proficiency

IAI: S5 905

PSC 222 International Relations (3-0) 3 Hours

The course will involve a critical analysis of the cold war and the New World Order. It will emphasize international theory, foreign policy decision-making, past and present global crises, American diplomacy, the new economy, and nuclear arms control in the post cold war era.

Prerequisite: Language Proficiency

IAI: S5 904N

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.

Prerequisite: Language Proficiency

PSYCHIATRIC REHABILITATION (PRS)

Social Science Division, Room A244, (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.

Prerequisite: Language Proficiency

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.

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.

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.

Prerequisite: PRS 111

PSYCHOLOGY (PSY)

Social Science Division, Room A244, (847) 543-2047

PSY 121 Introduction to Psychology (3-0) 3 Hours

The survey course presents the basic concepts and perspectives for understanding human behavior and mental processes. It includes factors affecting human behavior and mental processes, research methodology, the terminology of the discipline, application of psychological principles to everyday life, and the interrelation of psychology with other disciplines.

Prerequisite: Language Proficiency

IAI: S6 900

Course Information and Descriptions

PSY 122 Psychology in Business and Industry (3-0) 3 Hours

This course is designed as an introductory survey of the field of industrial and organizational psychology (in business). The focus is on human behavior and its practical applications in the world of industrial and non-industrial organizations. (e.g. education, government, etc.) Psychological principles in the area of personnel selection, motivation, leadership, job satisfaction, supervisory practices, research, and group activities will be covered.

Prerequisite: Language Proficiency

IAI: PSY 906, S6 900

PSY 220 Lifespan Development (3-0) 3 Hours

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.

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 development of the child from conception through adolescence. It includes discussions of the physical, cognitive, social-emotional, and moral development of children in cultural context. 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 children are introduced.

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 psychopathology and personality disorders with specific emphasis given to functional causation and general psychological theory. Behavior deviation patterns are described and illustrated.

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) social-biological; 3) psycho-statistical; 4) stimulus-response; 5) existential. Several case studies will be presented for analysis.

Prerequisite: PSY 121 (C or better)

IAI: PSY 907

PSY 225 Social Psychology (3-0) 3 Hours

The course is an introduction to the study of how individuals interact with their social environment. It includes problems of social learning, attitude formation, persuasion, conformity, communication, group behavior, aggression, altruism, prejudice, and attraction.

Prerequisite: PSY 121 (C or better)

IAI: S8 900

PSY 226 Adolescent Development (3-0) 3 Hours

The course integrates theory and research as they relate to biological, cognitive, and social-emotional development of adolescents in cultural context. Students will gain an understanding of family relationships; friend and peer relations; school, college, and career experiences; self-identity; gender; and sexuality, as well as the research methods psychologists use to study development.

Prerequisite: PSY 121 (C or better)

IAI: S6 904

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.

Prerequisite: PSY 121 (C or better)

This course fulfills the CLC International/Multicultural Education requirement

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.

Cross-listed with CRJ 248.

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.

May be taken four times for credit toward degree

REFRIGERATION AND AIR CONDITIONING (RAC)

See HVAC Engineering (HET) on page 246.

ROBOTICS (ROB)

See Mechanical Engineering Technology (MET) on page 267.

Course Information and Descriptions

RUSSIAN (RUS)

Communication Arts, Humanities &
Fine Arts Division, Room B210, (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.

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.

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.

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.

Prerequisite: RUS 221 C or better, or Consent of Instructor

This course fulfills the CLC International/Multicultural Education requirement

IAI: H1 900

SIGN LANGUAGE (SGN)

Communication Arts, Humanities &
Fine Arts Division, Room B210, (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 nonmanual 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.

Prerequisite: Language Proficiency

SGN 122 American Sign Language II (4-0) 4 Hours

This course 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.

Prerequisite: SGN 121 with a grade of C or better

SOCIAL STUDIES TOPICS (SST)

Social Science Division, Room A244, (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.

Prerequisite: Language Proficiency

May be taken twice for credit toward degree

SOCIAL WORK (SWK)

Social Science Division, Room A244, (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. Provides an overview of the range of public and private social services available for meeting these problems.

Prerequisite: Language Proficiency

SWK 124 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.

Prerequisite: Language Proficiency

SOCIOLOGY (SOC)

Social Science Division, Room A244, (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.

Prerequisite: Language Proficiency

IAI: S7 900

SOC 222 Social Problems (3-0) 3 Hours

This course provides an analysis of contemporary social problems and investigates the theories that examine social disorganization. Among areas developed are problems of race and ethnic relations, issues of health care, poverty, sexual and economic inequality, crime and penal institutions, aging, and environmental crises. *Note:* SOC 121 is recommended but not required to enroll in this course.

Prerequisite: Language Proficiency

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. *Note:* SOC 121 is recommended but not required to enroll in this course.

Prerequisite: Language Proficiency

SOC 224 Sociology of the Family (3-0) 3 Hours

This course is a study of the interaction between social systems and the family as a system. It includes an analysis of the dynamics of the individual nuclear family with implications for multiple parenting roles. *Note:* SOC 121 is recommended but not required to enroll in this course.

Prerequisite: Language Proficiency

IAI: S7 902

SOC 225 Class, Race, and Gender (3-0) 3 Hours

This course provides an examination of the causes and consequences of social inequality. Of particular focus is how class, race, and gender determine the distribution of and access to power, prestige, and wealth. Classical, contemporary, and comparative analysis of inequality are considered. *Note:* SOC 121 is recommended but not required to enroll in this course.

Prerequisite: Language Proficiency

IAI: S7 904D

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.

Cross-listed with GXS 229

Prerequisite: Language Proficiency

Recommended: SOC 121

This course fulfills the CLC International/Multicultural 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.

May be taken four times, but any topic only once

SPANISH (SPA)

Communication Arts, Humanities & Fine Arts Division, Room B210, (847) 543-2040

SPA 121 Beginning Conversational Spanish I (4-0) 4 Hours

Fundamentals of language necessary for understanding, speaking, reading and writing of Spanish. Practice in pronunciation from dialogues and pattern practices. This is the college level course.

Prerequisite: Language Proficiency

SPA 122 Beginning Conversational Spanish II (4-0) 4 Hours

Continuation of SPA 121. Emphasis on the development of oral comprehension and conversational ability. Instruction in the appreciation of the Spanish culture to be an integral part of the regular class activities.

Prerequisite: SPA 121 or Instructor Consent

SPA 123 Spanish for Spanish Speakers (3-0) 3 Hours

The goal of the 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.

Prerequisite: Native or near-native Spanish speaking ability

SPA 221 Intermediate Spanish I (4-0) 4 Hours

Continued development of oral comprehension and accurate control of sound system and syntax. 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.

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.

Prerequisite: SPA 221 C or better, or Consent of Instructor

This course fulfills the CLC International/Multicultural Education requirement

IAI: H1 900

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.

Prerequisite: SPA 222 C or better, or Consent of Instructor

This course fulfills the CLC International/Multicultural Education requirement

IAI: H1 900

Course Information and Descriptions

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.

Prerequisite: SPA 223 C or better, or Consent of Instructor

This course fulfills the CLC International/Multicultural Education requirement

IAI: HI 900

SPANISH ADULT EDUCATION (SAE)

Adult Basic Education, GED and ESL Division
Building 4, (847) 543-2021

SAE 66 Preparation for Spanish GED I (Variable) 3-4 Hours

This class is designed for students who want to prepare to take the General Educational Development examination (GED) in Spanish to earn their high school equivalence certificate. Students will study the five test areas covered in the GED exam: Writing Skills, Social Studies, Science, Literature and the Arts, and Mathematics. The course includes review for the constitution test.

May be taken four times for credit

SAE 67 Preparation for Spanish GED II (Variable) 3-4 Hours

This course prepares adults to take the GED exam in Spanish.

May be taken four times for credit toward degree

SURGICAL TECHNOLOGY (SRG)

Biological & Health Sciences Division,
Room C140, (847) 543-2042

SRG 110 Introduction to Surgical Technology (4-4) 6 Hours

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. Presents concepts of communication skills and ethical, moral, and legal responsibilities of the surgical team members. Discusses sterilization, disinfection, asepsis, and surgical environment as they relate to various clinical roles and care of the patient. Introduces basic surgical instruments, equipment and supplies. Focuses on 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.

Prerequisites: BIO 111 OR BIO 124 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

Focuses on introducing the student to the surgical technologist role. Presents concepts of general surgical patient care and basic case preparation and procedures. 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.

Prerequisite: SRG 110 (C or better)

Course fee

SRG 112 Surgical Procedures I (4-8) 6 Hours

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.

Prerequisite: SRG 111 (C or better)

Course fee

SRG 113 Surgical Procedures II (4-8) 6 Hours

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.

Prerequisite: SRG 112 (C or better)

Course fee

SRG 114 Surgical Procedures III (3-0) 3 Hours

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. Prepares students for the Surgical Technology National Certification Examination. 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.

Prerequisite: SRG 113 (C or better)

Course fee

SRG 115 Surgical Technology Internship (1-8) 3 Hours

Focuses on students' performance ability in the role of Surgical Technologist during select surgical procedures in general, orthopedic, gynecological, genitourinary, peripheral vascular and ophthalmic. Includes possible clinical experience in, major vascular, cardiac, transplant, trauma, and procurement surgeries.

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.

Prerequisite: Language Proficiency and Basic Algebra Readiness

SRG 118 Advanced Surgical Procedures (3-0) 3 Hours
Focuses on theory on 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.

Prerequisites: 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 discussed. *Note:* This course should ONLY be taken by those students pursuing the Surgical Technology Certificate.

Prerequisite: Language Proficiency and Basic Algebra Readiness

THEATRE (THE)

Communication Arts, Humanities &
Fine Arts Division, Room B210, (847) 543-2040

THE 121 Introduction to Theatre I (3-0) 3 Hours
Presents a broad overview of live theatre. 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.

Prerequisite: Language Proficiency

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.

Prerequisite: Language Proficiency

This course fulfills the CLC International/Multicultural Education requirement

IAI: F1909D

THE 125 Principles of Acting (3-0) 3 Hours
Introduction to stage movement, concentration, relaxation, improvisation, business and the creation of a character. Emphasis is on recognition and utilization of an actor's "inner resources" in establishing believability on stage in accordance with the intention of a script.

Prerequisite: Language Proficiency

IAI: TA 914

THE 126 Stagecraft (3-0) 3 Hours
Provides training in methods of scene 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. Theatre practicum and work on college productions required.

Prerequisite: Language Proficiency

IAI: TA 911

THE 127 Theatre Practicum II (0-2) 1 Hour
Supervised work on a production, either via a smaller acting role or backstage technical work like Props Master, running crew, etc.

Prerequisite: THE 125 or THE 126

May be taken three times for credit toward degree

Offered fall and spring only.

THE 129 Theatre Practicum (0-6) 3 Hours
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.

Prerequisite: THE 125 or THE 126

May be taken four times for credit toward degree

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.

Prerequisite: Language Proficiency

THE 223 Play Analysis for Production (3-0) 3 Hours
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.

Prerequisite: Language Proficiency

Offered fall only.

THE 225 Acting II (3-0) 3 Hours
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.

Prerequisite: THE 125

Course Information and Descriptions

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.

THE 228 Directing I (3-0) 3 Hours

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.

Prerequisite: THE 125

THE 229 Stage Makeup (3-0) 3 Hours

An investigation of the principles, techniques and materials of stage makeup and practical experience in their application.

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 catalogue. Course content and requirements will vary depending on the topic being studied. This course is repeatable up to four times because the course content varies each semester.

Prerequisite: Language Proficiency

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

VST courses do not apply to any associate degree or career certificate.

The Adult Education Program is funded in part by grants from the Federal Government totaling \$622,290. This represents 16% of the total cost of the program.

VST 200 Circuit Board Soldering (2.5-0) 2.5 Hours

Various techniques in the area of through-the-hole and surface-mount soldering will be covered through lecture, demonstration, and practice. Procedures for safety, component identification, tools, and theory will be emphasized.

VST 500 Network Cabling - The Physical Layer (2-0) 2 Hours

This is a short, intense hands-on training curriculum to develop an understanding of network wiring and cabling. Students completing the program will develop critical thinking skills as well as the skills needed to terminate, test and troubleshoot data, voice and video network wiring.

VST 501 Fiber Optics - The Physical Layer (1-0) 1 Hour

This course will cover developing familiarity with the Fiber Optic Termination Kit, Fiber Optic Concepts, Fiber Optic System Components, Placing Fiber Optic Cables, Testing Fiber Connectors and Installing Fiber Connectors.

VST 711 Office Communications (1.5-0) 1.5 Hours

Students will learn appropriate methods for maintaining an office. These skills will be applied to a variety of situational activities which include scheduling appointments, arranging meetings and conferences, using the telephone, handling the mail, and interacting with office personnel and clients.

VST 712 Developing Office Skills (1.5-0) 1.5 Hours

Students will learn and develop the skills needed to participate in the overall activities of an office. These activities include processing office mail, filing, preparing financial records, using word processing terms and equipment, and becoming familiar with copiers and duplicating machines.

VST 717 Model Office-Level I (.5-0) 0.5 Hour

The Model Office is a simulated work environment providing student "employees" with hands-on training necessary for transition into unsubsidized employment. Technical skills, basic skills and on-the-job survival skills will be covered in this course in accordance with the SCANS recommendations. Students in Level I will attend class two times per week for a total of eight contact hours. They will be responsible for proficiency in 27 skills in seven categories. An additional 16 hours of outside study will be met through open lab times in the Model Office classroom, access to CLC computer labs at both Lakeshore and Grayslake locations, plus worksheets and homework.

VST 718 Model Office-Level II (1-0) 1 Hour

The Model Office is a simulated work environment providing student "employees" with hands-on training necessary for transition into unsubsidized employment. Technical skills, basic skills and on-the-job survival skills will be covered in this course in accordance with the SCANS recommendations. Students in Level II will attend class three times per week, for a total of 16 contact hours. They will be responsible for proficiency in 46 skills in 10 categories.

VST 719 Model Office-Level III (1.5-0) 1.5 Hours

The Model Office is a simulated work environment providing student "employees" with hands-on training necessary for transition into unsubsidized employment. Technical skills, basic skills and on-the-job survival skills will be covered in this course in accordance with the SCANS recommendations. Students in Level III will attend class five times per week for a total of 24 contact hours and be responsible for proficiency in 54 skills in 10 categories.

VST 721 Computer Typing I (1-2) 2 Hours

Students will enhance their typing skills by learning how to type on the computer with speed and accuracy.

Course fee

VST 722 Word Processing (1-2) 2 Hours

Students will learn basic word processing skills.

WELDING (WLD)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

WLD 113 Welding Blueprint Reading (3-0) 3 Hours

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.

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, break 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.

Prerequisite: WLD 113 and WLD 170, and one of the following: WLD 172 or WLD 175 or WLD 178

Course fee

WLD 170 General Welding (2-2) 3 Hours

Provides a general and basic knowledge of safety, operation, and the fundamentals of gas, shielded metal arc, gas tungsten and gas metal arc welding. Develops primary and essential skills in their safe and proper operation. Equipment set up, applications, tools, materials will be covered. Development of welding skills are secondary to the primary understanding of safety, and knowledge of welding processes application and associated equipment. *Note:* Student must furnish basic required equipment.

Course fee

WLD 171 Gas Welding, Cutting, and Brazing (2-2) 3 Hours

Welding theory, safety, care of equipment, skill development and application with the fuel-gas process. Covers fusion welding, brazing, and cutting processes with steel. Opportunity to practice and work with pipe, cast iron, aluminum, and soldering. *Note:* Student must furnish basic required equipment.

Prerequisite: WLD 170

Course fee

WLD 172 Shielded Metal Arc Welding (2-2) 3 Hours

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; 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.

Prerequisite: WLD 170

Course fee

WLD 174 Advanced Shielded Metal Arc Welding (2-2) 3 Hours

Advanced study in "stick" electrode welding theory and practices. Features 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.

Prerequisite: WLD 170 and WLD 172

Course fee

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.

Prerequisite: WLD 170

Course fee

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.

Student shall be responsible for the costs of any testing or lab reports performed by outside agents.

Prerequisite: WLD 171 and WLD 174, and either WLD 175 or WLD 178

Individuals or groups with special needs or requirements may enroll with the consent of the program coordinator.

Course fee

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.

Prerequisite: WLD 170

Course fee

Course Information and Descriptions

WATER-WASTEWATER (WWW)

Engineering, Math & Physical Sciences Division,
Room T102, (847) 543-2044

WWW 111 Maintenance of Mechanical and Electrical Equipment (3-0) 3 Hours

Overview of equipment maintenance and repair, including preventive maintenance programs, record keeping, lubrication, troubleshooting, etc. Emphasis is placed on equipment encountered in water and wastewater operations.

Course fee

WWW 112 Fundamentals of Wastewater Treatment (3-0) 3 Hours

Wastewater-Includes basic theory and design for primary and secondary treatment facilities, review of water pollution regulations, sludge handling, disinfection, and review of mathematics for state certification tests. *Note:* Completion of MTH 115 or higher is strongly recommended.

WWW 113 Basic Waterworks Operations (3-0) 3 Hours

Potable Water-Includes water sources and quality, pumps and hydraulics, chlorination and fluoridation, distribution, certification, and operational reporting. Aids students in preparing for class "D" and "C" certification examination, which includes waterworks facilities that are limited to storage, distribution, and chemical addition to the water supply. *Note:* Completion of MTH 115 is strongly recommended.

Course fee

WWW 114 Introduction to Water and Wastewater Analysis (2-2) 3 Hours

An introductory study of laboratory procedures used for the analysis of potable water, wastewater, industrial wastes, and surface and ground waters. Develops an understanding of the theory and laboratory techniques needed for evaluation of treatment methodology, operational practices, and laboratory certification. Special emphasis will be placed on the use of standard methods of analysis for compliance monitoring requirements. *Note:* Completion of MTH 115 or higher is strongly recommended.

Course fee

WWW 299 Selected Topics in Water Wastewater (Variable) 1-3 Hours

Problems of individual interest in water supply or wastewater treatment technology. Advanced study in one or more technical areas such as treatment processes, design, water quality, process automation, laboratory instrumentation, or water/wastewater mathematics may be approved.

May be taken four times, but any topic only once

CONTINUING EDUCATION COURSES

Personal Enrichment, Continuing Professional Development and Vocational courses with no basic skill prerequisites are offered through Continuing Education. These course offerings change each semester based on need. Complete course descriptions may be found in the class schedule. Call the department noted below for additional information.

Center for Personal Enrichment

(847) 543-2022

VALH 1	Physical Assessment	.5 cr hour
VALH 7	EKG Interpretation	1 cr hour
VALH 11	Train the Trainer: BNA	2 cr hour
VALH 20	Current Nursing Practice Update	7 cr hours
VALH 31	Local Anesthesia for Hygienists	2 cr hours
VALH 95	Pharmacy Technician Training	5 cr hours
VCOS 1	Nail Technology Training	21 cr hours
VCRF 1	Beginning Stained Glass Window	1.5 cr hours
VCRF 3	Advanced Stained Glass Window Design	1.5 cr hours
VCRF 10	Beginning Calligraphy	1 cr hour
VCRF 11	Advanced Calligraphy	1 cr hour
VPET 10	Introduction to Horse Management	2 cr hours
VPET 11	Horse Judging and Selection	2 cr hours
VPET 12	Horse Health and Disease	2 cr hours
VPET 13	Horse Nutrition	2 cr hours
VPET 14	Horse Breeding and Genetics	2 cr hours
VPET 15	Horse Marketing	2 cr hours
VPTO 1	Introduction to Photography	1.5 cr hours
VVOC 2	Current Topics in Real Estate	1 cr hour
VVOC 5	Introduction to Travel Agency	3 cr hours
VVOC 6	Advanced Travel Agent Training	3 cr hours
VVOC 7	Airline Computer Training	1.5 cr hours
VVOC 10	Private Pilot Ground School	3 cr hours
VVOC 15	Woodworking and Furniture Making	2 cr hours
VVOC 16	Advanced Woodworking	3 cr hours
VVOC 20	Introduction to Fasteners	.5 cr hour
VVOC 21	Intermediate Fasteners & Design	.5 cr hour

Continuing Professional Development

(847) 543-2615

PCDL 1	Truck Driver Training	10 cr hours
PCHI 1	China: A Business and Cultural Experience	6 cr hours
PCJI 1	Community Service Officer 1	3 cr hours
PCJI 2	Community Service Officer 2	1 cr hour
PCJI 3	Police Matron Basic	1 cr hour
PCJI 4	Police Matron Advanced	.5 cr hour
PCJI 5	Police Defensive Driving Course	1 cr hour
PCJI 8	Police Use of Force	.5 cr hour
PCJI 15	Accident Investigations 1- Basic	1 cr hour
PCON 1	Construction Management: Special Topics	1 cr hour
PCON 2	Construction: Project Management Training	1 cr hour
PCTR 5	Introduction to Computers - Windows	.5 cr hour
PCTR 10	Introduction to Word	.5 cr hour
PCTR 11	Intermediate Microsoft Word	.5 cr hour
PCTR 12	Advanced Microsoft Word	.5 cr hour

Course Information and Descriptions

PCTR 15	Introduction to Microsoft Excel	.5 cr hour	PPSI 6	Security Officer Firearm Training	1.5 cr hours
PCTR 16	Intermediate Microsoft Excel	.5 cr hour	PRLE 1	Real Estate Transactions	3 cr hours
PCTR 17	Advanced Microsoft Excel	.5 cr hour	PRLE 30	Contracts and Conveyance	1 cr hour
PCTR 20	Introduction to Microsoft Access	.5 cr hour	PRLE 31	Advanced Principles of Real Estate	1 cr hour
PCTR 21	Intermediate Microsoft Access	.5 cr hour	PRLE 32	Real Estate Finances	1 cr hour
PCTR 22	Advanced Microsoft Access	.5 cr hour	PRLE 33	Property Management	1 cr hour
PCTR 25	Intro to Microsoft Outlook	.5 cr hour	PRLE 34	Broker Administration	1 cr hour
PCTR 26	Intermediate Microsoft Outlook	.5 cr hour	PRLE 35	Real Estate Investing	1 cr hour
PCTR 30	Intro to Microsoft Power Point	.5 cr hour	PRLE 40	Home Inspection	4 credits
PCTR 31	Advanced Microsoft Power Point	.5 cr hour	PRLE 51	Real Estate Selling School	2 cr hours
PCTR 35	Microsoft Publisher	.5 cr hour	PSST 13	Command Spanish for Office Personnel	.5-3 cr hours
PCTR 40	Adobe Photoshop: Level I	.5 cr hour	PSST 14	Command Spanish: Topics	.5-3 cr hours
PCTR 41	Adobe Photoshop: Level II	.5 cr hour	PTCH 1	Basic Skills Test: Math	.5 cr hours
PCTR 60	Introduction to Front Page	.5 cr hour	PTCH 2	Basic Skills Test: Grammar	.5 cr hours
PCTR 61	Advanced Front Page	.5 cr hour	PTCH 51	CSI for the Science Educator	3 cr hours
PCTR 65	Adobe Illustrator: Level I	.5 cr hour	PTCH 60	Reading Fundamentals Topics	1.5 cr hours
PCTR 66	Adobe Illustrator: Level II	.5 cr hour	PTCH 62	Talented and Gifted Education	1.5 cr hours
PCTR 70	Introduction to Microsoft Project	.5 cr hour	PTCH 63	Educational Assessment:	
PCTR 71	Advanced Microsoft Project	.5 cr hour		Student Evaluation	1.5 cr hours
PCTR 75	Adobe InDesign: Level I	.5 cr hour		Behavior is Language	1.5 cr hours
PCTR 76	Adobe InDesign: Level II	.5 cr hour		Social, Emotional and Behavioral Issues	2 cr hours
PCTR 77	Adobe Acrobat Level I	.5 cr hour	PTCH 64	Understanding Aggression	2 cr hours
PCTR 78	Adobe Acrobat Level II	.5 cr hour	PTCH 65	Learning Disabilities	2 cr hours
PCTR 80	Macromedia Flash 8: Level I	.5 cr hour	VALH 9	12-Lead ECG Interpretation	1 cr hour
PCTR 85	Introduction to Dreamweaver	.5 cr hour	VALH 10	Select Topics: Nursing CE	.5-3 cr hours
PHOS 11	Advanced Meeting and Event Planning	1 cr hour	VALH 30	Select Topics: Dental Hygiene	.5-3 cr hours
PLNG 11	Spanish Interpreter-Education	2 cr hours	VALH 40	Select Topics: Medical Imaging	.5-3 cr hours
PLNG 12	Spanish Interpreter-Medical I	2 cr hours	VALH 50	Select Topics: Health Information CE	.5-3 cr hours
PLNG 13	Spanish Interpreter-Medical II	2 cr hours	VALH 60	Select Topics: Surgical Technology CE	.5-3 cr hours
PPRO 54	Strategic Sales Certificate	2. cr hours	VALH 70	Select Topics: Medical Lab	.5-3 cr hours
PPRO 55	Value-Based Selling	.5 cr hour	VALH 80	Select Topics: Medical Assistant CE	.5-3 cr hours
PPRO 56	New Business Development	.5 cr hour	VALH 85	Select Topics: Massage Therapy	.5-3 cr hours
PPRO 57	Time and Territory Management	.5 cr hour	VALH 90	Select Topics: HealthCare Professional CE	.5-3 cr hours
PPRO 58	Sales Presentation Skills	.5 cr hour			
PPRO 65	Customer Service	.5 cr hour			
PPRO 66	Business Writing	.5 cr hour			
PPRO 71	Conflict Management	.5 cr hour			
PPRO 72	Negotiating to Agreement	.5 cr hour			
PPRO 75	Time Management	.5 cr hour			
PPRO 80	Emerging Leader	.5 cr hour			
PPRO 81	Building Supervisory Foundations	.5 cr hour			
PPRO 90	Lean Six Sigma-Yellow Belt Certification	3 cr hours			
PPRO 91	Lean Six Sigma-Green Belt Certification	3. cr hours			
PPSI 1	Child Passenger Safety Seat Tech	2 cr hours			
PPSI 5	Security Officer Basic	1.5 cr hours			

On the Grayslake Campus

By far the largest College of Lake County site, the Grayslake Campus consists of 226.1 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 gymnasium (Building 7) and the Job Center of Lake County, stand alone.

Among the major features of the campus are:

A. Harold Anderson Campus Wing (A Wing), completed in 1974. This wing contains classrooms and faculty offices and currently houses the Social Science Division office (A 244, second floor). The A Wing also includes a court area for student use for study and socializing.

Paul W. Brandel Campus Wing (B Wing), also completed in 1974. This wing contains classrooms and faculty offices and currently houses the Communication Arts, Fine Arts and Humanities office (B210, second floor). The B Wing also includes computer laboratories and a court area for student use for study and socializing.

The **Library** was completed in 1980. The Library serves as the cultural center of the college and includes the John C. Murphy Memorial Library, an open computer lab, Learning Assistance Center and the Robert T. Wright Community Gallery of Art. The library has more than 136,000 books, 400 periodicals and an extensive media collection. Directly supporting classroom instruction, the Learning Assistance Center provides tutoring and testing services. The Art Gallery serves as a venue for exhibitions and juried competitions throughout the year.

Physical Education Building (Building 7) was completed in 1971 with the gymnasium added in 1980. In 2001, the building was remodeled and the fitness center and locker rooms were upgraded and an aerobics room was added. The building houses the Athletics & Physical Activities Department on the second floor. Intercollegiate athletic contests, intramurals and fitness classes are held in the P.E.C., as well as many in-house 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.

Science/Student Services Wing (C Wing), completed in 1987. This module houses facilities for the biology, chemistry and health information technology programs. Also located in this wing are the Biological and Health Sciences Division office (C140, first floor) and student service areas including the Counseling Center (C110) and Student Activities Office (C101).

Multi-Use Instructional Building (D Wing), completed in 1996. The Multi-Use Instructional Building is known on campus as the D Wing. It houses the Child-Care Center and classrooms and faculty offices for the art, nursing education, multimedia and human services programs.

The James Lumber Center for the Performing Arts (JLC), completed in 1997. The JLC 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 JLC also includes practice areas for dance, choir and instrumental students as well as classrooms and faculty offices.

Hours of Operation

These hours are generally maintained during the semester while classes are in session. There may be exceptions during breaks or holidays.

Admission and Financial Aid

Monday-Thursday	8:00 a.m.-8:00 p.m.
Friday	8:00 a.m.-4:30 p.m.

Bookstore

Monday-Thursday	7:45 a.m.-8:30 p.m.
Friday	7:45 a.m.-4:30 p.m.

Business Services and Cashiers

Monday-Thursday	8:00 a.m.-8:00 p.m.
Friday	8:00 a.m.-4:30 p.m.

Library

Monday-Thursday	8:00 a.m.-10:00 p.m.
Friday	8:00 a.m.-4:30 p.m.
Saturday	9:00 a.m.-4:30 p.m.
Sunday	1:00 p.m.-5:00 p.m.

Lakeshore Campus

Monday-Thursday	7:30 a.m.-10:00 p.m.
Friday	7:30 a.m.-4:30 p.m.
Saturday	8:00 a.m.-2:00 p.m.

Physical Education Center

Monday-Thursday	8:00 a.m.-9:00 p.m.
Friday	8:00 a.m.-4:00 p.m.
Saturday	9:00 a.m.-3:00 p.m.

Southlake Campus

Monday-Thursday	8:00 a.m.-10:00 p.m.
Friday	8:00 a.m.-4:30 p.m.
Saturday	8:00 a.m.-2:00 p.m.

Job Center of Lake County (formerly Illinois Employment and Training Center), completed in 1999. The center provides facilities for the Illinois Department of Employment Security, the Lake County Regional Superintendent, the Lake County Education-to-Careers Office and CLC's Career and Placement Services Department. Designed as a "one stop" service center, the Job Center offers comprehensive employment.

The Technology Building, opened in 2005, is a state-of-the-art facility that houses the Business and the Engineering, Math and Physical Sciences divisions (T102); the Workforce and Professional Development Institute (WPDI) (T302); the Community Education department (T320); and academic programs in a variety of business-, industrial- and manufacturing-related technology fields. 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.

Food Service

Lancers, a deli-style restaurant, is located in the Commons area of the main building, near the bookstore on the Grayslake campus. The menu includes a variety of sandwiches, soups, salads, desserts, drinks, plus a daily special, all made fresh daily at its CLC facility. Food Service is open Monday through Thursday from 7:00 a.m.-8:30 p.m., Fridays 7:00 a.m.-2:30 p.m. and Saturday from 7:30 a.m.-12:30 p.m. when classes are in session.

The Willow Room restaurant is also located on the Grayslake campus. It specializes in great food at great prices. The restaurant is self-serve, with signs indicating portions per plate size. As long as there are tables open, patrons will be able to walk in, have a complete meal, and be out in half an hour. The Willow Room is open for lunch Monday through Friday from 11:00 a.m.-1:30 p.m.

Lakeshore Campus

The College of Lake County Lakeshore Campus (LSC), located at 111 N. Genesee Street in Waukegan, offers students a variety of educational opportunities including high quality classroom 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 acquisition of Associate in Science and Associate in Applied Science degrees; adult education, continuing education, community service activities, and career development courses.

Students can also earn an Associate in Arts a degree by attending the Lakeshore Campus exclusively.

The Lakeshore Campus also provides a broad range of support services which include registration, payment of tuition and fees, testing services, academic advising,

academic support through the Learning Assistance Center, a bookstore, child care, financial aid, counseling, faculty support and student life.

The Learning Assistance Center at the Lakeshore Campus is located in N203, N204 and N213. Students and community members can complete a variety of exams such as the Academic Proficiency Test (APT), various placement tests for academic courses, online, teleweb, mediated, makeup and correspondence testing; CLEP and DSST, standardized exams for GED and ACT Work Keys and career, counseling and interest inventories. Additional services include academic support through modular and alternative instruction, tutoring, instructor test scoring aids and supplementary materials. For more information call (847) 543-2120 or (847) 543-2121.

Library reference service is offered in N-203 for approximately sixteen hours per week during the regular semester and less often during the summer session. Check postings as hours are subject change. When a librarian is present, students and faculty can receive reference help, apply for a library card and check out books. Materials from other campuses can be shipped to Lakeshore as needed. Faculty members may also arrange for library instruction sessions in their classes. Library resources can be accessed through the library webpage at <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 Lakeshore library service, call (847) 543-2139.

The Lakeshore Campus is open Monday through Thursday 7:30 a.m.-10:00 p.m., Friday 7:30 a.m.-4:30 p.m., and Saturday 8:00 a.m.-2:00 p.m. For more information, call (847) 543-2191.

Parking

There are 200 free parking spaces in the City of Waukegan parking garage adjacent to the Lakeshore Campus South Building that may be used by College of Lake County students. CLC students are required to obtain a parking permit from the Campus Police officer 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 CLC spaces are written in bold lettering – “CLC PARKING ONLY.” All others will be ticketed.**

Additional parking is available for CLC students, faculty and staff in the City of Waukegan Parking Lot D located at 300 N. Sheridan Road and Clayton Street. Parking is available Monday through Friday from 8 am to 5 pm. Individuals parking in Lot D must display a hang-tag, student sticker, or daily parking pass.

Facilities and Extension Locations

Textbooks

The bookstore hours are Monday through Thursday from 8:00 a.m.-12:30 p.m. and 1:30 p.m.-8:00 p.m., and Friday from 8:00 a.m.-4:30 p.m. Textbooks are available at the Lakeshore Campus for students enrolled in courses at the Lakeshore Campus and at Waukegan West, Zion-Benton, and Warren high schools. Books may be purchased during the first two weeks of classes from 8:00 a.m.-8:00 p.m. Monday through Thursday, 8:00 a.m.-4:30 p.m. on Friday, and 7:45 a.m.-12:30 p.m. on Saturday.

Southlake Campus

The College of Lake County - Southlake Campus is located at 1120 S. Milwaukee Ave, Vernon Hills, IL 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 will provide two safe access and egress points to the college: Route 45 or Route 21.

In 2007 the college opened a new 47,000+ square foot state-of-the-art classroom building at Southlake, increasing instructional space four-fold and adding such features as a science laboratory, four computer labs, a library, a learning 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 student lounge that gives the campus its structural signature, Southlake also boasts the first public building green roof in Lake County. The new Campus and Student Support Center is located in V130 where students can apply for admissions, register for classes, and make tuition payments, among other services.

Credit offerings at Southlake include both day and evening courses that can be applied toward an Associates degree. Transfer and career courses that lead to an associate in science (AS) and associate in applied science (AAS) degrees are also offered at the Southlake Campus. Exclusively offered at Southlake is CLC's AAS degree in Nanoscience Technology in collaboration with Harper College. Certificate offerings at Southlake include the Massage Therapy Program, Wellness Coaching, and Personal Training. Southlake also offers the 75-hour Pharmacy Technician course.

In addition, Southlake also 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.

The Library at Southlake, located in V106, maintains regular day and evening hours from 8:00am-7:00pm Monday through Thursday and Friday 8:00am-4:30 pm. Hours may vary during college breaks. The library's collection includes books, magazines, journals and newspapers in addition to online

access to a variety of remote resources. A reference librarian 16 hours per week in person or via instant messaging in this quiet study area. For more information call (847) 543-6533.

The Learning Assistance Center (LAC) at the Southlake Campus is located in V212. Academic support services include testing and writing, math, science tutoring. The LAC provides testing services for Academic Proficiency Tests (APT), chemistry and math placement tests, teleweb tests, make-up tests, correspondence tests and others. LAC hours are Monday-Thursday 8:00 am-8:00 pm, Friday 8:00 am – 4:30 pm and 9:00 am-1:00 pm on Saturdays. Hours may vary during college breaks. For more information, call (847) 543-6544.

The Southlake Bookstore is located on the first floor of the V building, V134. The bookstore hours are, Monday-Thursday 8:30 am-8:30 pm, Friday 8:30 am-1:30 pm. The bookstore is opened 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.

Academic and career counseling is available by appointment at the Southlake Campus. To schedule an appointment or request information about learning opportunities at the Southlake Campus, call (847) 543-6501.

The Southlake Campus is open Monday through Thursday 8:00 am -10:00 pm, Friday 8:00 am – 4:30 pm, and Saturday 8:00 am –2:00 pm. For more information, call (847) 543-6501.

Great Lakes Center

The College of Lake County maintains an office at Great Lakes Naval Base (GTLK) to give service members, their families, and members of the surrounding community an opportunity to work towards an associate degree. Late afternoon and evening courses are offered in both the traditional sixteen-week and a condensed eight-week format. This allows students to complete many of the general education requirements for graduation. Services offered at the Great Lakes Center include: registration (in-person only), advisement, and textbook purchase for on-site classes. Book sales are available the first week of each term. In addition, all the facilities and services of the main campus are open to Great Lakes students. All non-military personnel (students and instructors) are required to obtain a base pass prior to the start of class to gain entrance to the Naval Base. The Great Lakes Center is located at the Lifelong Learning Center located in Building 617, room 209. Classes are currently held in building 617 on the second floor. Office hours are 8:00 a.m.-4:30 p.m. Monday through Friday but may be subject to change. For more information call (847) 543-2972.

Additional Extension Sites

The college also frequently offers classes at the following locations:

Abbott Park
Adlai Stevenson High School
Antioch Community High School
Adult Learning and Technology Center
Atlas Stable
Ballybunion Golf Learning Center
Deerpath Golf School
Grayslake High School
Great Lakes Naval Base
Highland Park Golf Course
Lake County High School
Technology Campus

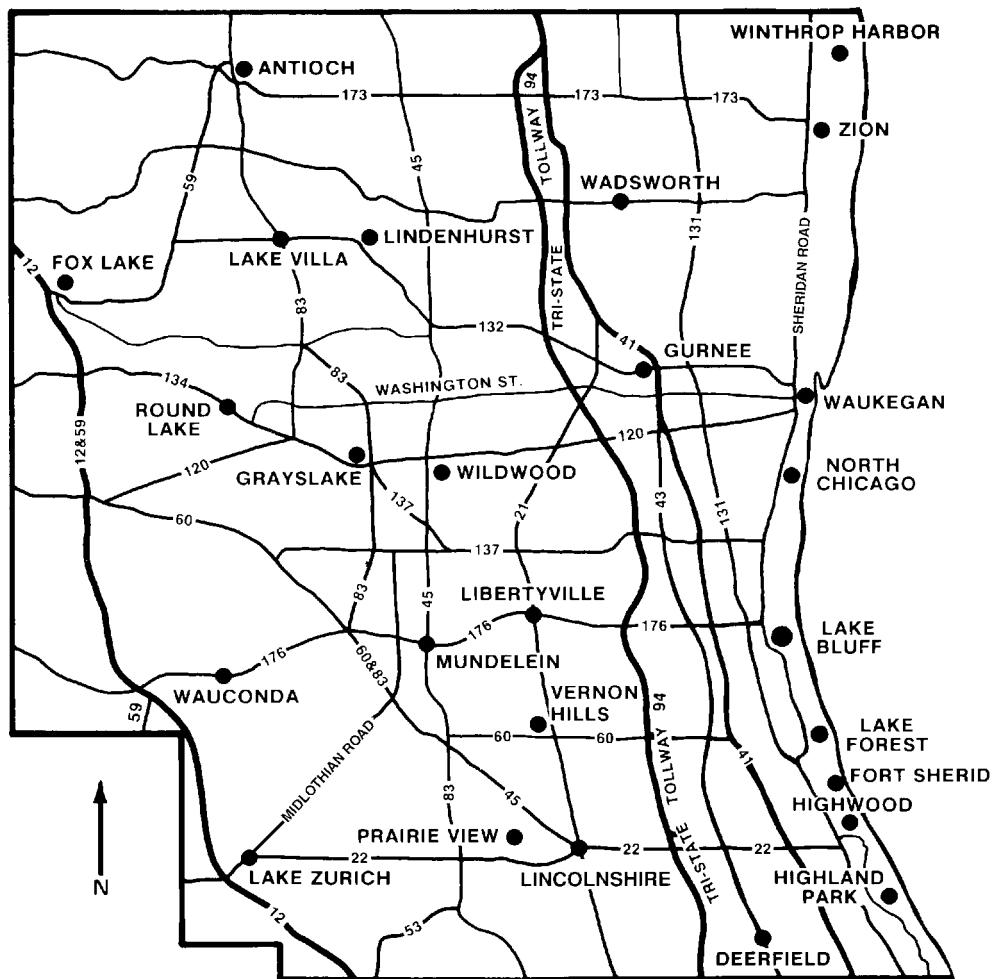
Abbott Park, IL
Lincolnshire, IL
Antioch, IL
Waukegan, IL
Burlington, WI
Long Grove, IL
Lake Forest, IL
Grayslake, IL
Great Lakes, IL
Highland Park, IL
Grayslake, IL

Lake Zurich High School
North Chicago High School
Round Lake Area Library
Round Lake High School
S & B Upholstery
Vernon Area Library
Wauconda High School
Waukegan High School

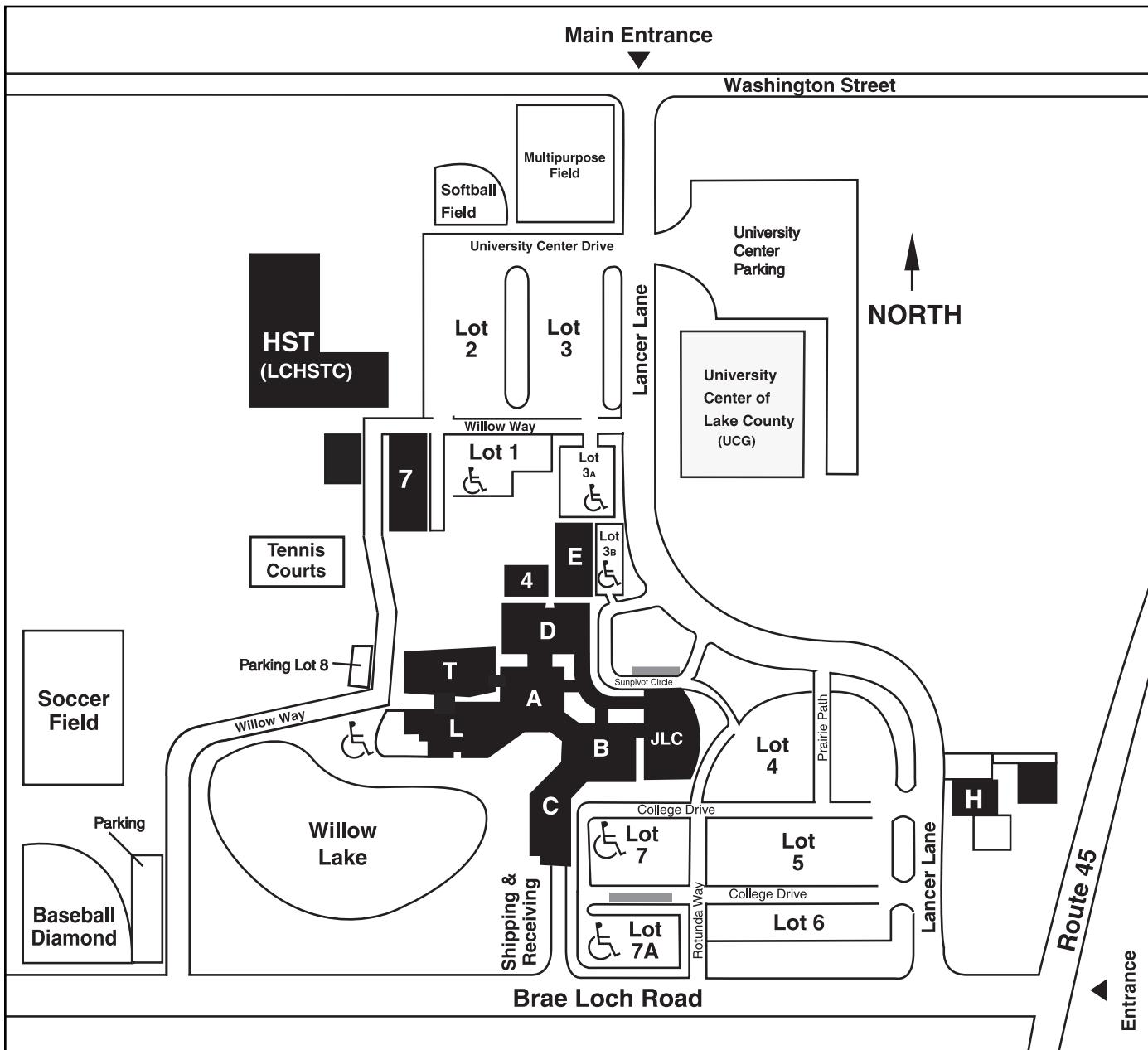
Lake Zurich, IL
North Chicago, IL
Round Lake, IL
Round Lake, IL
Ingleside, IL
Lincolnshire, IL
Wauconda, IL
Waukegan, IL

For a list of the extension sites used for a specific semester,
consult the class schedule for that semester.

Map of CLC District



Grayslake Campus Map



LEGEND:

BUILDINGS

- A,B, & C - Administrative Offices & classrooms
- D - Administrative Offices, classrooms & Child Care Center
- E - Job Center of Lake County
(Formerly Illinois Employment & Training Center)
- JLC - James Lumber Center for the Performing Arts
Theatres, classrooms and Box office
- L - Library
- T - Technology Building
- 4 - Adult & Continuing Education

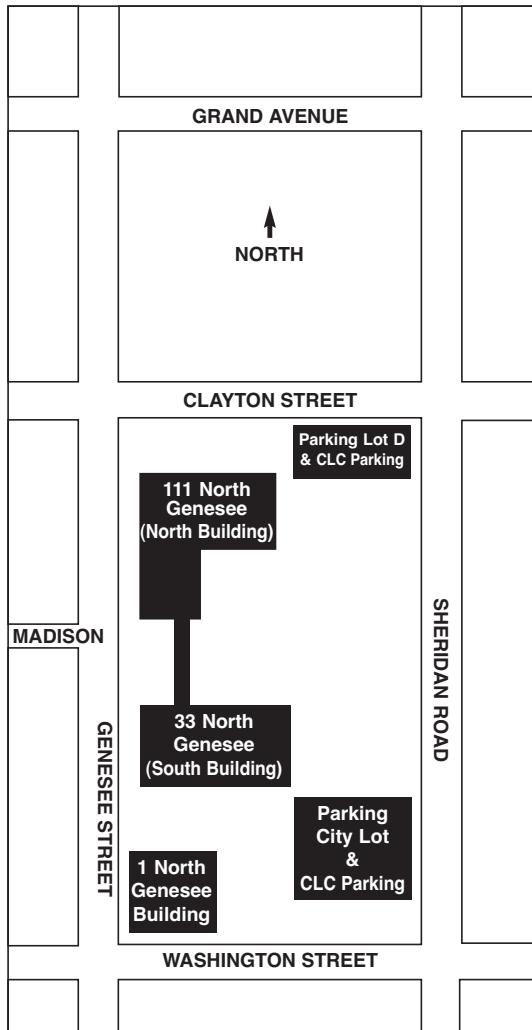
- 7 - Physical Education Center
- H - Horticulture
- HST - Lake County High Schools Technology Campus

PARKING LOTS

- Student & Visitor - Lots 2, 3, 4, 5 & 6
- Staff - Lots 1, 7, 7a, 3b & 8
- Job Center of Lake County - Lot 3b
- Visitor - Circle Drive & Lot 7

Lakeshore Campus Map

1 North, 33 North & 111 North Genesee Street
Waukegan

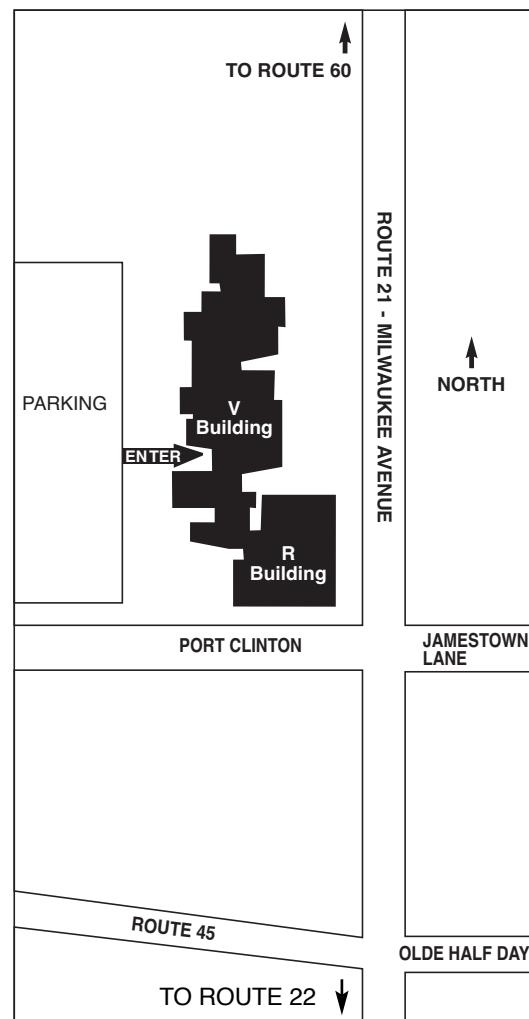


BUILDINGS

- **111 North Genesee (North Building):**
 - Classrooms
 - Community Development
 - Computer Labs
 - Learning Assistance Center (LAC)
 - Student Services Center
- **33 North Genesee (South Building):**
 - Administration
 - Bookstore
 - Campus Safety
 - Childcare
 - Classrooms
- **1 North Genesee:**
 - Adult Education
 - Classrooms
 - Dental Hygiene Clinic
- PARKING**
 - City Lot Parking & CLC Parking

Southlake Campus Map

1120 South Milwaukee Avenue
Vernon Hills



BUILDINGS

- **Building V:**
 - Campus and Student Support Center
 - Bookstore
 - Classrooms and Computer Labs
 - Conference Area
 - Glass Enclosed Student Lounge
 - Open Computer Lab
 - Science Laboratory
 - Discovery! Center for Personal Enrichment
 - Library
 - Learning Assistance Center
 - Green Roofing
- **Building R:**
 - Classrooms
 - Distance Learning Room
 - Center for Health and Wellness Promotion

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DE LA VEGA, PHIL Junior Graphic Designer B.A., Marquette University B.F.A., International Academy of Design & Technology, Chicago	DULMES, STEVEN L. CAD CAM B.S., Purdue University M.S., DePaul University	FLORENT, SARAH Biology Lab Specialist B.A., University of Iowa B.S., University of Iowa
		FLOYD, GARY Supervisor, Campus Services A.S., College of Lake County B.A., Columbia College

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M.A., Northeastern Illinois University
M. Ed., University of Illinois, Chicago

GANTHER, FELICIA

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M.A., Norfolk State University

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M.A., Indiana University
M.S., Indiana University

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M.A., University of Hawaii

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M.B.A., Northwestern University

GIES, JENNIFER

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TESL Certification, Tennessee Foreign Lang Inst

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Admission Requirements

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 Admissions and Records office will assess incoming students for English language proficiency 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 Information 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.

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).

AN OFFICIAL TRANSCRIPT

is one that is sent directly from a prior institution to the Office of Admissions and Records. If your name has changed, please ask them to show your new name on the transcript.

Academic Proficiency Prerequisites

Language Proficiency and Basic Algebra Readiness requirements are assessed by the Admissions and Records Office.

Language Proficiency

Incoming students will be assessed for English language proficiency as demonstrated by meeting any one of the following:

- a. High school transcript showing top $\frac{1}{3}$ 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), Critical Reading Score of 450 or above and Writing Score of 450 or above, (prior to 3-1-05 Verbal Score of 450 or above.)
- e. General Educational Development (GED) transcript, Reading & 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. Evidence of an associate or higher degree from an accredited U.S. college or university.
- h. Official transcript from an accredited U.S. college/university record with at least 30 semester hours of credit with no grade below C; or credit equivalent to ENG 108 with a grade of A or ENG 109 at CLC.
- i. Completion of CLC ELI 104, 107 or 108 or ENG 108 with a grade of A.
- j. Successful completion of CLC ENG 108 with a grade of A or ENG 109 with a grade of C or higher.
- k. CELSA placement test score of 70 or better.

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 $\frac{1}{3}$ 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 450 or above.
- e. General Educational Development (GED) transcript, Mathematics: Score of 550 or above
- f. Evidence of an associate or higher degree from an accredited U.S. college or university.
- g. Official transcript from an accredited U.S. college or university listing credit equivalent to MTH 101 or higher level courses at CLC
- h. Completion of either CLC MTH 101 or MTH 114 with a 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 on the Web!
www.clcillinois.edu/applic.htm

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 follows:

In-District Illinois Resident Student:

1. A student who is 18 years of age or older 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, or
2. An unemancipated student under 18 who has at least one parent, step-parent or court-appointed guardian who meets the above criteria.
3. Community College District #532 is defined to include residents of the following Lake County, Illinois public high school districts:

1. Adlai E. Stevenson	9. Mundelein
2. Antioch	10. North Chicago
3. Grant	11. Round Lake
4. Grayslake	12. Vernon Hills
5. Highland Park-Deerfield	13. Warren Township
6. Lake Forest	14. Wauconda
7. Lake Zurich	15. Waukegan
8. Libertyville	16. Zion-Benton

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:

1. Evidence of residency shall be based on occupancy of a dwelling.
2. Residency may be verified by displaying one of the following:
 - A. Illinois driver's license or identification card issued by the Illinois Secretary of State's office.
 - B. Illinois voter identification card.

Where to Get Answers for Your Questions

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 West Washington Street, Grayslake, Illinois, 60030-1198. Telephone inquiries should go to the number listed with each office.

Questions on:

	Call:	Office Location
Accommodations for Students with Disabilities	(847) 543-2055.....	L112
Activities	(847) 543-2280	C104
Admissions and Records	(847) 543-2061	B101a
Adult Education	(847) 543-2021	Building 4
Advisement	(847) 543-2060	C110
Affirmative Action	(847) 543-2065	B146
Athletics and Physical Activities	(847) 543-2046	Building 7
Biological and Health Sciences Division	(847) 543-2042	C140
Bookstore	(847) 543-2086	B1
Business Division.....	(847) 543-2041	T102
Career and Placement	(847) 543-2059	E101
Career Programs.....	(847) 543-2422	C206
Chargebacks and Joint Educational Agreements	(847) 543-2412	C206
Communication Arts, Humanities & Fine Arts Division.....	(847) 543-2040	B210
Center for Personal Enrichment.....	(847) 543-2022	Building 4
Cooperative Education.....	(847) 543-2058	E101
Counseling	(847) 543-2060	C110
Educational Guarantees	(847) 543-2060	C110
Engineering, Mathematics & Physical Science Division	(847) 543-2044	T102
Extension Services	(847) 543-2653	Building 4
Financial Aid	(847) 543-2062	B114
Health Center	(847) 543-2064	A149
International Education	(847) 543-2741	D119
International Students	(847) 543-2733	B105
Learning Assistance Center	(847) 543-2072	Library
Library (Murphy Library)	(847) 543-2070	Library
Nursing Education	(847) 543-2043	D208
Public Relations	(847) 543-2094	A216
Registration	(847) 543-2061	B101
Social Science Division	(847) 543-2047	A244
Testing Center	(847) 543-2076	Library
Tuition Payment.....	(847) 543-2230	A101
Veteran's Information.....	(847) 543-2063	B114
Workforce & Professional Development Institute	(847) 543-2615	T317

Other Locations:

Lakeshore Campus	(847) 543-2191	33 North Genesee Street, Waukegan, IL 60085
Great Lakes Center.....	(847) 689-0199	Building 619, Room 209, Great Lakes, IL 60088
Southlake Campus	(847) 543-6501	1120 South Milwaukee Avenue, Vernon Hills, IL 60061

19351 West Washington Street - Grayslake, Illinois 60030-1198 - Main number: (847) 543-2000

Cancellation of Classes

If CLC classes are cancelled because of weather or other factors,
the cancellation will be announced on the following radio and television stations:

Announcements of day class cancellations will begin by 6 am. Announcements of evening class (those beginning 4 pm or later) cancellations will begin by 3 pm. An automated message will be placed on the telephone system during hours when the switchboard is closed. **Remember:** The switchboard gets very busy if many students call. Please call only if it is impossible to listen to one of these stations.

In any case, use your good judgement!

Closings will also be posted on the CLC website: www.clcillinois.edu

MAIL TO: 19351 WEST WASHINGTON STREET • GRAYSLAKE • ILLINOIS • 60030-1198**Fax: (847) 543-3061 • WEB APPLICATION: www.clcillinois.edu/applic.htm**

If you need assistance completing this form, please call the Office of Admissions and Records at (847) 543-2061.

1. APPLICATION STATUS:

- New Applicant to CLC
- Returning to CLC, enter 7-digit Student ID
(if known) _____

2. COMPLETE LEGAL NAME:

(Last) _____ (First) _____ (Middle) _____

Former or Maiden Name: _____

3. SOCIAL SECURITY NUMBER:

_____ - _____ - _____

4. GENDER: Male Female**5. DATE OF BIRTH:**

Month / Day / Year AGE: _____

6. U.S. MILITARY SERVICE RECORD:

- Active Duty
- Veteran
- Never Served

7. U.S. CITIZEN / VISA STATUS:Are you a U.S. Citizen YES NO

If no, what is your status in the U.S.?

- Immigrant (Permanent Resident)
- F-1 Visa
- Other (please indicate type if known):

If on a Visa, what is your home country of origin?
_____**8. ETHNIC / RACIAL DESCRIPTION:**Are you Hispanic or Latino? YES NO

Are you from one or more of the following racial groups?

- | | |
|--|--|
| <input type="checkbox"/> Asian | <input type="checkbox"/> Black Non-Hispanic |
| <input type="checkbox"/> Native Hawaiian or Pacific Islander | <input type="checkbox"/> White Non-Hispanic |
| <input type="checkbox"/> American Indian or Alaskan Native | <input type="checkbox"/> Choose not to Respond |

Which of the above-noted racial groups is your primary group?
_____**9. HOME ADDRESS:***Must be listed to document legal residence for tuition assessment and state reporting purposes:*

Number and Street _____

City or Town _____

State & Zip Code _____ County (if Illinois) _____

10. RESIDENCY:

I have have not been a resident of Lake County for 30 days prior to the first day of the semester in which I intend to enroll.

11. MAILING ADDRESS:

If you have a different address for the purpose of receiving mail you may list it below. You must also list your home address in question 9.

Number and Street _____

City or Town _____

State & Zip Code _____

12. TELEPHONE:Preferred Phone Number: HOME CELLHOME: (_____) _____ - _____
Area Code Telephone NumberCELL: (_____) _____ - _____
Area Code Telephone Number**13. E-MAIL ADDRESS:**

(Required if taking online classes)

14. ENROLLMENT STATUS (Check one):*Typical classes are 3 credit hours.*

- Plan to attend school part-time (less than 12 credit hours)
- Plan to attend school full-time (12 credit hours or more)
- Plan to take Summer classes only (Full-time student from another institution)

CONTINUED

15. EDUCATIONAL OBJECTIVE AT CLC:

CLC offers two types of Associate degrees:

- Associate degrees which allow you to transfer to a 4-year institution.
- Associate in Applied Science degrees which prepare you for a career

CLC also offers both long and short-term certificate programs that focus on specific career skills.

- To complete an associate degree
- To complete a certificate of one year or more
- To complete a certificate of less than one year
- To complete one or several courses (*Students selecting this objective are not seeking a degree and are not eligible for financial aid.*)

16. STUDENT INTENT (Check one):

The following best describes my primary reason for attending CLC

- To prepare for new or first occupational career
- To improve present occupational skills
- To explore courses to decide on a career
- To prepare for transfer to four-year college/university
- To remedy basic skill deficiencies
- To pursue non-career, personal interests
- To prepare for high school diploma equivalency test
- Other or unknown

17. HIGH SCHOOL STATUS:

- Graduated from High School:

YEAR: _____

- Attending a K-12 school now and expect

to graduate high school: YEAR: _____

If you are under 18 or currently enrolled in high school, you must complete a Secondary School Reference Form in order to register for classes at CLC. Form is available at <http://www.clcillinois.edu/depts/adr/forms.asp> or call Admissions

- Received GED High School Certificate:

YEAR: _____

- Did not graduate and no longer attend.

18. HIGHEST EDUCATIONAL LEVEL COMPLETED AFTER HIGH SCHOOL:

- Certificate Program
- Associate Degree
- Bachelor's Degree
- Master's Degree
- First Professional Degree
- Doctoral Degree
- None of the above

19. PARENT HISTORY:

Has either of your parents graduated from a four-year college or university?

- YES NO

20. IS ENGLISH YOUR FIRST LANGUAGE?

- YES NO Choose Not to Respond

If English is **not** your first language, did you begin to learn English before the age of 12?

- YES NO Choose Not to Respond

If English is **not** your first language, did you learn English in a country where English is the primary language (such as the US or Canada)?

- YES NO Choose Not to Respond

21. LAST HIGH SCHOOL ATTENDED:

Name _____

City _____

State _____

22. COLLEGE (Last accredited U.S. college or university attended, or if degree earned, name and location of college where degree was earned):

Name _____

City _____

State _____

Degree Earned? YES NO

Month/ Year of Degree _____ / _____

23. APPLYING FOR TERM BEGINNING:

(Year) _____

- Fall (August-December)
- Spring (January-May)
- Summer (June-July)

CONTINUED

24. PROGRAM OF STUDY (REQUIRED INFORMATION — Please check only one):

What I need to know to select a program of study at CLC CLC offers the following types of programs:

- **Transfer Education** – includes degrees/courses that allow students to transfer to a 4-year college. Choose from this category of programs if you plan (now or in the future) to pursue courses at a 4-year college or university.
- **Career Education** – includes degrees/certificates and courses which allow students to gain career skills. Choose from this category of programs if you desire training in order to enter the work force upon completion. Career courses may not transfer to a 4-year college.
- **Continuing Education courses for personal, vocational or leisure interests** are not college credit classes. Choose this program if you are not interested in taking any college credit classes.
- **Adult Literacy** – Courses for students who wish to improve their basic skills.

TRANSFER EDUCATION

- Accounting (13AB-ACC)
- Anthropology (13AB-ANT)
- Art (13AB-ART)
- Biological Sciences (11AB-BIO)
- Business Administration (13AB-BUS)
- Chemistry (11AB-CHM)
- Communication (13AB-CMM)
- Computer Information Technology (11AB-CIT)
- Computer Science (11AB-MCS)
- Criminal Justice (13AB-CRJ)
- Early Childhood Education (13AB-ECE)
- Early Childhood Education: Teaching Early Childhood Education (19AB)
- Earth Science (11AB-ESC)
- Economics (13AB-ECO)
- Elementary Education (13AB-EDU)
- Engineering (12AB)
- English (13AB-ENG)
- Fine Arts, Art (14AA)
- Fine Arts, Music Ed (15AA)
- Fine Arts, Music Performance (16AA)
- Foreign Language (13AB-FOR)
- Geography (13AB-GEG)
- History (13AB-HST)
- Humanities (13AB-HUM)
- International Studies (13AB-INS)
- Mathematics (11AB-MTH)
- Mathematics: Teaching Secondary Mathematics (17AB)
- Music (13AB-MUS)
- Philosophy (13AB-PHI)
- Physics (11AB-PHY)
- Political Science (13AB-PSC)
- Pre-Dentistry (11AB-DNT)
- Pre-Medicine (11AB-MED)
- Pre-Occupational Therapy (11AB-OCC)
- Pre-Pharmacy (11AB-PHR)
- Pre-Physical Therapy (11AB-PPT)
- Pre-Veterinary Medicine (13AB-VET)
- Psychology (13AB-PSY)
- Social Work (13AB-SWK)
- Sociology (13AB-SOC)
- Special Education: Teaching Special Education (18AB)
- Theatre (13AB-THE)
- Transfer degree or courses , undecided subject of study (13AB)

CONTINUING EDUCATION

For personal/professional interest studies.

- Personal/Fitness/Leisure Courses (VOCRS)
- Professional/Vocational Programs (VOCRS)
- Courses to Earn CEUs or CPDUs*
- Programs for Youth – Xplore! or Fast-Paced Program (PERSN)

* *CEU program (Note:Courses that offer CEUs or CPDUs are NOT college credit courses and may not be used for transfer or any degree/certificate program of the college.) CEUs are granted by the International Association of Continuing Education & Training. CPDUs apply for teacher recertification.*

CAREER EDUCATION

- Accounting (ACC)
- Administrative Office Systems (AOS)
- Architectural Technology (ARC)
- Automotive Collision Repair (ABR)
- Automotive Technology (AUT)
- Business Management (BUS)
- CAD-Drafting Technology (CAD)
- Cisco Networking (CNA)
- Civil and Environmental Technology (CIV)
- Computer Drafting Applications (CDA)
- Computer Information Technology (CIT)
- Computerized Numerical Control Programming (CNC)
- Construction Management Technology (CMT)
- Criminal Justice (CRJ)
- Dental Hygiene (DHY)
- Digital Media and Design (DMG)
- Early Childhood Education (ECE)
- Education Paraprofessional (EDU)
- Electronic Information Technology (EIT)
- Electronic Systems Technology (EST)
- Electrical Engineering Technology (EET)
- Electrical/Electronic Maintenance (ELC)
- Electrician Apprenticeship (EAP)
- Emergency Disaster Management (EDM)
- Emergency Medical Services (EMT)
- Fire Science Technology (FST)
- Health and Wellness Promotion (HWP)
- Health Information Technology (HIT)
- Heating and Air Conditioning Engineering Technology (HET)
- Horticulture (HRT)
- Hospitality and Culinary Management (HCM)
- Human Services Program (HUS)
- Laser/Photonics/Optics (LPO)
- Library Technical Assistant (LTA)
- Machine Tool Trades (MTT)
- Massage Therapy (MAS)
- Mechanical Engineering Technology (MET)
- Medical Assisting (MOA)
- Medical Imaging (MIM)
- Nursing/CNA Certified Nurse Assisting (NUR)
- Paralegal Studies (PLS)
- Phlebotomy Technician (MLT)
- Surgical Technology (SRG)
- Teaching English to Speakers of Other Languages (ENG)
- Technical Communication (ENG)
- Welding (WLD)

Note: Occupational Certificates of less than 16 semester hours may not be eligible for financial aid.

Note: Students will not receive financial aid for limited enrollment programs until they are accepted into the program.

ADULT LITERACY

For students who plan to study basic skills, English as a Second Language, or GED/Adult Secondary Education.

- Adult Basic Education and Literacy Programs (ABE)
- GED and High School Completion Programs (ASE)
- English as a Second Language (ESL)

CONTINUED

25. WHICH OF THE FOLLOWING WAS A SOURCE OF INFORMATION FOR YOU ABOUT CLC?

Please select all that apply.

Major Source of Information	Minor Source of Information	Not a Source of Information	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CLC class schedule or other mailing to your home
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	High school teacher or counselor
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CLC admission representative
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Newspaper advertisement
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Television advertisement
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Radio advertisement
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CLC website
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Parents
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Friends

26. ARE YOU INTERESTED IN APPLYING FOR FINANCIAL AID? YES NO

If yes, complete the *Free Application for Federal Student Aid (FAFSA)* at www.fafsa.gov.

27. CERTIFICATION:

I understand that withholding information requested on this form or giving false information may make me ineligible for admission to the College or subject to dismissal. With this in mind, I certify that the above statements are correct and complete. (Your signature and date are required before CLC can process this application.) The College of Lake County affirms and adheres to a policy of equal opportunity in all aspects of education and employment.

Signature

Date

What do I need to do next?

If you are planning to register for any college credit class, you must show that you are language proficient and basic algebra ready. **Submit one of the following documents** (official or unofficial) to the Admissions Office as soon as possible to prove proficiency:

- HS transcript showing class rank in top 1/3 after 6 semesters.
- ACT score report showing reading, English and math scores of 17 or above
- SAT score report showing critical reading, writing and math scores of 450 or above
- GED transcript showing 550 or above in reading, writing skills and math
- U.S. college transcript showing completion of an Associate Degree or higher
- U.S. college transcript showing completion of 30 credits with no grade less than "C" (satisfies language proficiency only).

OR

- Take CLC's Academic Proficiency Language test (minimum score of 153) and Math Placement test, arithmetic section (minimum score of 56).

Additional admission requirements apply to the following students:

- **High School Graduates** from 2009 or 2010 who plan to complete a degree should submit a high school transcript.
- **International Students** must contact the International Student Specialist at (847) 543-2733.
- **Students Under 18** who have not completed High School must submit a Secondary School Reference Form before enrolling. Form is available at <http://www.clcillinois.edu/depts/adr/forms.asp> or call Admissions.
- **Nursing, Dental Hygiene, Magnetic Resonance Imaging, Medical Imaging, Medical Assisting, Health Information Technology, Computed Tomography, Surgical Technology, and certificate in Paralegal Studies** have additional admissions requirements. Contact the Admissions Office.

Learn your CLC Student ID

After your application has been processed (usually within two business days), you will be sent a seven-digit CLC Student ID number in the mail. This ID number is necessary to create a custom user ID and password which allows access to myStudentCenter, the College's student registration system. For more information about how to register, visit www.clcillinois.edu.

Sign up for an advisement session

If you are a recent high school graduate planning to attend full-time and complete a degree or certificate at CLC, you are required to attend a **New Student Advisement Session**.

Call Orientation at (847) 543-2516 or go online to apps.cllcillinois.edu/orientation/register.asp to register

If you are a returning adult or part-time student, you should attend an **Advisement Information Meeting (A.I.M.)**. Call Counseling at (847) 543-2060 for times.