



**College of Lake County**  
2004-2005 Catalog

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This catalog is in effect for the academic year 2004-2005.  
The information is subject to change within that period.  
Any changes will be noted in the class schedule published  
each semester.

## Message from the President



Thirty-five years ago this fall, the College of Lake County first opened its doors to students, and from our student body to our programs, much at the college has changed since we first began offering classes.

In our first semester in 1969, we had 2,360 students; today, we have almost 16,000. Like Lake County as a whole, our student body has become much more diverse, with minorities increasing from about 7 percent of students in the early days to 33 percent today.

In the beginning, classes were offered only in temporary trailers that were cold in the winter and hot in the summer. Today, our Grayslake Campus has grown into a large, modern complex of buildings, and we not only offer classes in Grayslake but also at the Lakeshore Campus in Waukegan, the Southlake Educational Center in Vernon Hills and extension sites throughout Lake County.

In the early days we offered many programs like English and math that are still mainstays of the curriculum. But we never dreamed of offering classes, as we now do, on the Internet. Nor did we envision many of the programs we now offer in such computer-based fields as electronics information technology, multimedia communications or Cisco networking.

One of the great strengths of community colleges is that we are always evolving and changing to meet new needs. This ability to adapt has allowed CLC to add more than 50 new programs in the last five years and to venture into completely new areas when needed. A case in point is our new Emergency and Disaster Management certificate, which is geared to the requirements of the post-9-11 world.

Beyond programs, CLC is continuing to change in other ways, as well. Many of our long-time faculty members are retiring, and we are welcoming a new group of highly qualified instructors, who, like our students, are increasingly diverse. Our facilities, too, are changing as we add new buildings to keep pace with enrollment growth. This fall, for example, we hope to break ground for a new classroom building at our Southlake Educational Center in Vernon Hills, and in the spring 2005 semester, we plan to open our new technology building on the Grayslake Campus.

As we change, our priority will remain offering students the best possible educational experience. That requires carefully managing our resources, and we will continue to do so in this period of reduced state funding. We embrace the challenge of finding creative and innovative approaches to meet students' needs.

A handwritten signature in cursive script that reads "Gretchen J. Naff".

Gretchen J. Naff, Ed.D.  
President

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*The College of Lake County is an Equal Opportunity/Affirmative Action Institution in all aspects of education and employment. Information in this catalog is accurate as of May, 2004, but is subject to change.*

## **2004 Fall Semester**

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August 16-21	Academic Advising and Faculty and Staff Development Week
August 23	Classes Begin
September 6-7	Labor Day Recess (no classes)
October 19	Mid-Semester
November 24-28	Thanksgiving Recess (no classes)
December 11-17	Final Exams
December 17	Semester Ends

## **2005 Spring Semester**

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January 10-15	Academic Advising and Faculty and Staff Development Week
January 18	Classes Begin
March 14	Mid-Semester
March 28-April 3	Spring Vacation (no classes)
May 7-13	Final Exams
May 14	Semester Ends
May 14	Commencement

## **2005 Summer Session**

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June 6	Classes Begin
July 3	Mid-Session
July 4	Independence Day Holiday (no classes)
July 31	End of Session

## **2005 Fall Semester**

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August 15-20	Academic Advising and Faculty and Staff Development Week
August 22	Classes Begin
September 5-6	Labor Day Recess (no classes)
October 18	Mid-Semester
November 23-27	Thanksgiving Recess (no classes)
December 10-16	Final Exams
December 16	Semester Ends

## **2006 Spring Semester**

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January 9-14	Academic Advising and Faculty and Staff Development Week
January 17	Classes Begin
March 13	Mid-Semester
March 27-April 2	Spring Vacation (no classes)
May 6-12	Final Exams
May 13	Semester Ends
May 13	Commencement

## **2006 Summer Session**

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June 5	Classes Begin
July 2	Mid-Session
July 4	Independence Day Holiday (no classes)
July 30	End of Session

***CLC MISSION & GOALS***



***CATALOG 2004-2005***

## CLC Mission and Goals

Established by the citizens of Lake County within a framework of the Illinois Master Plan for Higher Education, the College of Lake County is a comprehensive community college dedicated primarily to meeting the post-secondary educational needs of individuals within District 532. The College of Lake County is accredited by the Higher Learning Commission and a member of the North Central Association, 30 N. LaSalle Street, Suite 2400, Chicago, IL 60602, (312)-263-0456 or (800) 621-7440.

The College of Lake County strives for excellence by responding to a wide range of transfer, career, continuing, and developmental educational needs through diverse and relevant curricular offerings. More specifically, the college pledges to provide high quality general education in the liberal arts and sciences, career education commensurate with student occupational needs and opportunities, continuing education, and basic skills that are essential for success. The college also strives to ensure that its students develop an appreciation for the diversity of world cultures and the importance of international and multicultural perspectives. As an institution that values the learning of its faculty and staff as well as its students, the college will engage in ongoing processes of assessing student achievement and providing staff development in order to improve its work and be accountable to its several constituencies.

The college pledges to support these courses and programs with an array of print, multimedia, and electronic learning resources, and flexible student services that include advising, counseling, financial aid, and placement. Throughout all of its work, the college will maintain academic standards that will lead to competence and encourage the pursuit of excellence.

Furthermore, the college affirms its commitment to fostering the cultural, aesthetic, and intellectual life of the district and assumes responsibility for providing leadership to the community in these areas. In addition, the college is committed to the advancement and development of the district's economy and recognizes its civic responsibility to provide education and training for business and industry. In these and other areas of its mission, the college will enter into partnerships that will help achieve greater efficiency and effectiveness.

The college assures equal access and opportunity for all individuals regardless of race, ethnic origin, creed, gender, age, veteran's status, sexual orientation, or non-disqualifying disability.

Consistent with its mission, the College of Lake County sets forth the following goals and objectives for Fiscal Years 2004-2005:

### *Strategic Goal 1: Learning*

#### **The College of Lake County will enhance student and organizational learning and development.**

This goal includes the following themes: enhancing teaching and learning, using technology to enhance learning, focusing on student-centered services, recognizing and valuing a diverse community, and building a competitive workforce.

- Objective 1:* The College will increase use of diverse instructional techniques such as collaborative learning, service learning, work-based learning and problem-based learning.
- Objective 2:* The College will promote innovative uses of technology to offer academic programs and student support services..
- Objective 3:* The College will encourage faculty to adopt "learning-centered" approaches to instruction.
- Objective 4:* The College will promote learning by fostering a safe and clean campus environment that enhances students' physical, social and intellectual well-being.
- Objective 5:* The College will increase the retention and graduation rates of students, especially those identified as at-risk of not meeting their educational goals.
- Objective 6:* The College will support a positive environment for diverse student and employee populations and will strive to assist members of the College community in the development of an appreciation for diversity and world cultures.
- Objective 7:* The College will encourage students to develop a sense of personal responsibility, work ethic and respect for others.
- Objective 8:* The College will encourage and strengthen internal relationships that emphasize team building, collaboration across departments, communication and participation in decision-making.
- Objective 9:* The College will conduct a systematic review of the academic advising system and develop enhancements to strengthen it.
- Objective 10:* The College will encourage students to develop a career plan by increasing opportunities for students and faculty to learn about careers labor market information, employment opportunities and trends.
- Objective 11:* The College will increase the number of English language learners (English as a second language students) who are entering College-level courses at the College of Lake County.
- Objective 12:* The College will increase the success of students who place into developmental reading and writing courses.
- Objective 13:* The College will implement assessment of student learning in general education.

*Objective 14:* The College will provide a work environment that respects employees, values their contributions and provides resources for professional development that foster and promote higher education excellence and leadership.

*Objective 15:* The College will serve as a leader in workforce training by offering programs and courses designed to meet the current and future workforce needs of the district, to have state-of-the-art equipment, and to employ the best qualified instructors.

### **Strategic Goal 2: Outreach**

**College of Lake County will strengthen its outreach to the community.**

This goal includes the following themes: increasing outreach to identify and serve community needs and increasing partnerships with diverse constituent groups within the community.

*Objective 1:* The College will increase public awareness of its roles and impact in various communities.

*Objective 2:* The College will partner with educators, businesses, social agencies, the military, government agencies, civic organizations and community groups to address educational issues affecting the quality of life in Lake County..

*Objective 3:* The College will identify and respond to the educational needs of diverse populations within Lake County.

*Objective 4:* The College will serve as a cultural resource center by offering diverse activities that represent a variety of disciplines and cultures.

*Objective 5:* The College will reach out to Lake County employers to assess their workforce development needs and to develop and enhance programs to meet those needs.

### **Strategic Goal 3: Access**

**The College of Lake County will work to reduce barriers and increase opportunities to meet the diverse needs of the people of Lake County.**

This goal includes the following themes: focusing on student-centered services, enhancing the technology infrastructure, and expanding facilities.

*Objective 1:* The College will review and augment programs and services to ensure access.

*Objective 2:* The College will continuously improve student services procedures, including the use of technology, to ensure that students have easy access to the information, people and services they need to be successful.

*Objective 3:* The College will expand access to opportunities for financial aid and scholarships and improve information dissemination about both.

*Objective 4:* The College will modify and expand College facilities to meet the needs of the community.

*Objective 5:* The College will facilitate educational transitions from one level to the next by forming partnerships and cooperative agreements with four-year colleges and universities, and working closely with the University Center of Lake County.

*Objective 6:* The College will form partnerships with Lake County elementary and high schools to promote student preparation and transition to college.

### **Strategic Goal 4: Accountability**

**The College of Lake County will evaluate and improve all academic and nonacademic departments to ensure high quality. The College also will work to ensure resources are used efficiently and effectively.**

This goal includes the following themes: assessing and continuously improving all academic and nonacademic departments and programs, and ensuring adequate financial resources.

*Objective 1:* The College will integrate assessment of academic curricula and academic achievements into appropriate college systems and institute strategies for continuous improvement.

*Objective 2:* The College will improve information technology systems to better serve students, track outcomes and assess programs and activities.

*Objective 3:* The College will conduct reviews of all academic and nonacademic departments to ensure the highest quality of education, efficient and effective operations, and superior services to students, staff and the community.

*Objective 4:* The College will seek ways to ensure its long-term financial viability including evaluating options for achieving greater cost efficiency in operations, maximizing the use of existing revenue sources and developing new revenue sources..

*Objective 5:* The College will work closely with the University Center of Lake County to support the efficient use of resources.

*Objective 6:* The College will continue its commitment to being a responsible leader in managing and protecting the environment.

*Objective 7:* The College will incorporate the principles of continuous improvement into its functions, including a focus on student learning, collaboration across departments, measuring student and stakeholder satisfaction, and using data in appropriate ways to document and improve performance.

***PROGRAMS OF STUDY***



***AND EDUCATIONAL OPTIONS***

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

### Transfer Education

Students who come to the College of Lake County in order to earn credits that are transferable to a four-year college or university will find a wide range of programs designed to prepare them for work at the junior level. These programs lead either to an Associate in Arts (A.A.), an Associate in Science (A.S.), an Associate in Engineering Science (A.E.S.), or an Associate in Fine Arts (A.F.A.) 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 to which they would like to transfer and to design their program to meet the requirements of that institution. For information on specific courses whose credits are transferable to a given college or university, students should consult the Counseling Center.

Requirements for the Associate in Arts, the Associate in Science, the Associate in Engineering Science, and the Associate in Fine Arts degrees are listed on pages 49-66.

### Career Education

Many students at the College of Lake County are working to gain enough skills and knowledge in a field to be able 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 (A.A.S.) or a shorter sequence which leads to a Certificate.

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.

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 students to attend programs not offered at CLC at other institutions at greatly reduced costs. Such agreements exist with the following institutions:

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

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).

The four Illinois institutions listed above treat CLC students as their own district residents by giving them equal consideration in admission to limited enrollment programs (within limits set forth by joint agreement) and 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.

The programs offered through joint agreements and their respective institutions are indicated on pages 47-48. For information about transfer and career programs, as well as program listings, additional tuition information, and authorization to attend these institutions, one should contact the Office of the Assistant Vice President of Educational Affairs at (847) 543-2418.

### Continuing Education

The Department of Continuing Education at the College of Lake County offers a wide variety of educational opportunities to satisfy both personal interests and professional needs of adults. To promote the ability of students to learn throughout their lives, the College provides continuing education courses which range from one-day seminars and workshops to semester-length courses.

Non-credit courses, workshops, seminars, and conferences are offered to encourage and heighten life-long learning without the constraints of credit offerings.

Continuing education credit courses provide vocational skills training to individuals who have learning goals which fall outside those of Career Education Certificates or Associate Degree Programs. Continuing Education courses do not apply toward a Career Education Certificate or Associate Degree Program.

## Programs of Study and Educational Options

Continuing Education also offers the following special programs:

### Continuing Professional Education

The College of Lake County has been approved by various regulatory and accreditation agencies to provide continuing education units for Teachers, Real Estate Professionals, Accountants, Nurses, Social Workers, and Nursing Home Administrators. The Continuing Education department offers numerous professional development courses to provide participants with new knowledge, practical technical skills, and current information needed to renew their licenses or certificates.

Individuals that participate in professional development activities receive continuing education units (CEUs) or contact hours depending on their discipline. Continuing Education credits are awarded for "actual instructional time" as mandated by the regulatory and licensing bodies. Certificates of completion are provided to participants who have attended all classroom contact hours, successfully passed required assessments, and completed appropriate course evaluations.

### Allied Health

Courses, seminars, and conferences are designed to fulfill licensing, certification, and career requirements for allied health care professionals. These offerings are scheduled at a variety of times and locations.

### Explore!

A variety of educational and recreational programs are offered for Middle School students, sixth through eighth grade. The program is held at the Grayslake Campus one Saturday a month. Class topics include: Mad Scientist Classes, American Red Cross Certifications, Technology, and Culinary Arts. For more information on these programs or a current brochure, call (847) 543-2759.

### Discovery!

The Discovery! program for adult learners provides exciting and creative courses for people fifty and older. Short-term classes are offered on weekdays and cover a wide variety of topics—for fun or personal development. College instructors or community professionals facilitate most sessions. For more information or a current brochure call (847) 543-6503.

For more information on these programs, please call the Continuing Education office at (847) 543-2022.

## Adult Education

Adult education provides several specific types of educational opportunities.

1. Adult Basic Education (ABE) provides individualized instruction in reading, general language development, mathematics, and life-coping skills. Students proceed at their own pace.
2. 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.
3. 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.
4. High School Completion classes are for adults 19 years or older who have separated from a secondary educational system and want to complete their high school graduation requirements to earn a regular degree.
5. Vocational Skills Training (VST) is designed to introduce various types of 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.

## Developmental Program

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 who speak English as a second language and who have not achieved language proficiency are required to enroll in academic ESL classes such as ELI 100, 103, 104, 105, 106, 107 and 108. Placement in a specific course depends on ESL placement test scores (CELSA) and recommendations of faculty.

### Testing

One way in which a student may show that he or she has attained 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 battery is

administered at the following CLC campus centers. Please call for further information.

- 1) Grayslake Campus, Grayslake (847) 543-2076
- 2) Lakeshore Campus, Waukegan (847) 623-8686
- 3) Southlake Educational Center, Vernon Hills (847) 478-1833

### **Courses**

Instruction in basic skills is provided by specific courses in the various divisions, by modules in the Learning Assistance Center, and by 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, Physical Sciences:  
Room B162, (847) 543-2044.
- Communication Arts, Humanities, and Fine Arts:  
Room B237, (847) 543-2040.
- Counseling Center: Room C 110, (847) 543-2060.

Individual tutoring by trained professionals as well as 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.

## **Business and Industry Training Center**

The Business and Industry Training Center provides Lake County employers with a wide range of instructional programs for training or retraining their employees. Training features include customized curricula, on-site and off-site programs, and program development to meet special needs.

Programs include customized on-site training in manufacturing and industrial technologies, ISO 9000 skills, managerial and supervisory skills, computer skills, basic skills development, English as a Second Language, business writing, presentation skills, workplace Spanish and a variety of other customized training programs. On-site credit programs can also be arranged to enhance employee development.

The Business and Industry Training Center provides the Lake County business community with the quality, cost-effective training programs needed to be competitive in the quality-oriented global economy. For more information, call (847) 543-2027.

## **Community Development Programs**

Since 1991, the College of Lake County, in conjunction with the 19th Judicial Circuit of Illinois, has offered the Defensive Driving Program. The courses provided are accredited by the National Safety Council and are offered in both a four-hour and eight-hour format. Motorists who receive a minor traffic violation in Lake County may opt to take these classes under court supervision. The courses emphasize defensive driving techniques, including rules of the road, collision prevention, and other driving situations that motorists may encounter.

Community Development offers other courses for the Court, including the Family Parenting Program and Live Victim Impact Panel. The Family Parenting Program is for parents of minor children who are seeking dissolution of marriage. This three-hour class deals with the effects of divorce on minor children and how to help children through this emotionally difficult time in their lives. The Live Victim Impact Panel is designed as an effort to affect the behavior and state of mind of those convicted of DUI and related offenses. The College, along with the Alliance Against Intoxicated Motorists, provides a forum for victims of DUI offenses to relate their stories about the impact of the crime on their lives, with participants who have been referred by the Court to attend for DUI offenses.

The Volunteer Probation Support Program, in conjunction with Court Services of Lake County, recruits, trains, and assigns volunteers to work with adults and juveniles during their probation periods, providing support, mentoring and supervision. The department provides administrative support to the 19th Judicial Family Violence Coordinating Council, working to bring community awareness to the issue of family violence through education and training.

For more information on these programs, please call (847) 623-8877

## **Computer Training for Business People**

This training is intended for those who wish to immediately gain workplace skills. Half-day and full-day workshops are offered during weekdays, evenings, and Saturdays.

Training sessions are offered on popular business application software, including Word, Excel, PowerPoint, Access, Project, FrontPage, VISIO, Outlook, Windows, Crystal Reports, HTML, MCSE 2000, and A+ Computer Technician.

The Business-Industry Training Center also provides on-site training in the workplace, bringing its laptop PC computer lab to businesses for customized training in most computer topics, including Advanced Microsoft Office Applications. Call (847) 543-2747 for more information.

### Procurement Technical Assistance Center

The PTAC is a resource for businesses interested in selling products and/or services to the federal, state or municipal governments.

Our services are readily accessible to companies new to this market just seeking information and also to those firms that are actively engaged in the government marketplace. We offer individualized sessions. We sit down and talk face-to-face with owners of small businesses and/or other business representatives to discuss their concerns, answer their questions and provide information that will assist them to succeed in this marketplace.

Other issues that the Center assists with include: proposal structuring and development, contract management practices, GSA schedule preparation, certification, procurement program and regulation research and advisement.

In addition, the Center conducts seminars and networking opportunities, provides access to technical and reference information and offers automated bid-lead identification delivered via e-mail.

Our goal is to build and continue strong business relationships that will support and assist area businesses in obtaining government contracts.

The PTAC offices can be reached by just calling (847) 543-2025 or via e-mail at [clcptac@clcillinois.edu](mailto:clcptac@clcillinois.edu).

The Procurement Technical Assistance Center program is funded by the Defense Logistics Agency, the Illinois Department of Commerce and Economic Opportunity, and the College of Lake County through a cooperative agreement as a service to the business community

### Public Service Institute

The Public Service Institute is part of the Community Education Department and provides Lake County with a resource for linking public service agencies with training and development resources that would otherwise be unavailable because they are cost prohibitive. The Institute was established in 1996 to coordinate resources and assist with staff development for numerous agencies that provide public and civic services to the residents of Lake County. Training options include courses offered on campus as well as custom-designed programs that can be delivered off-site. Courses can be tailored to the unique needs of public service entities. Working relationships have been established with agencies including the Lake County Fire Chiefs Association, Lake County Council Against Sexual Assault (LaCasa), Lake County Municipal League, as well as several other community organizations. For more information, call (847) 543-2026, or e-mail [ecd327@clcillinois.edu](mailto:ecd327@clcillinois.edu).

The Community Education Department offers the Beverage, Alcohol Sellers and Servers Educational Training course (BASSET). This program is certified by the Illinois Department of Alcohol and Substance Abuse, and is required by the Lake County Liquor Commission and various other municipalities for establishments serving and selling alcohol to the general public. For more information, call (847) 543-2026.

### Criminal Justice Institute

The Criminal Justice Institute is part of the Community Education Department and offers a variety of in-service programs for the law enforcement community. Courses include Use of Force, Instructor Development, Drug Identification, Defensive and Evasive Driving, Community Service Officer and a variety of other specialized courses and seminars. This high-quality training is accessible to local law enforcement agencies at a fraction of the cost of using distant vendors. Many of the courses are certified and reimbursable through the Illinois Law Enforcement Training and Standards Board. The Criminal Justice Institute is a federal certified training center and it makes use of high-tech simulator systems for emergency vehicle operations and firearms judgment training. For more information call (847) 543-2026.

### Small Business Development Center

The Small Business Development Center (SBDC) is part of a national network of over 900 centers whose mission is to help both existing businesses and potential entrepreneurs succeed by providing managerial and technical assistance. The SBDC accomplishes its mission by a number of means, including one-on-one consulting on all aspects of business operations, educational and training opportunities encompassing a variety of workshops and seminars, providing access to resources and information including SCORE (Service Corp of Retired Executives) Counseling, a Resource Center, and assistance in identifying and securing financing to start or expand a business. Workshop/seminar areas include business start-up, business planning, marketing, tax issues, internet, record keeping and bookkeeping, buying and selling a business, computer software and hardware, and international trade and finance options.

The SBDC program, in existence at the College since 1986, is partially funded by the U.S. Small Business Administration (SBA) in partnership with the Illinois Department of Commerce and Economic Opportunity. All SBA programs are extended to the public on a nondiscriminatory basis. The SBDC office can be reached at (847) 543-2033.

### Job Center of Lake County

The Job Center of Lake County is located on the Grayslake Campus. The Job Center offers one-stop job/career assistance to Lake County job seekers and CLC students. The building houses the college's Career and Placement Services office, the Illinois Department of Employment Security, the Workforce Development Department of Lake County, the Regional Office of Education, and the Lake County Education to Careers Partnership. The Career and Placement Services office provides career and job search resources and individual assistance. The Illinois Department of Employment Security offers access to local, state, and national job listings and processes unemployment insurance claims for individuals. The Workforce Development Department provides career and training assistance to qualifying individuals. The Regional Office of Education provides services to elementary and secondary school districts throughout Lake County. The Education to Careers Partnership helps create bridges between students' academic experience and the world of work. Other employment related services are available through partnerships with SER/Jobs for Progress, Inc. of Lake County Senior Employment program; Lake County Community Action Project; Office of Rehabilitation Services; Temporary Assistance to Needy Families; and Waukegan Housing Authority. To receive more information or assistance from any of these offices stop by the Job Center (Building E) or call (847) 543-7400.

### Other Educational Options

#### Cooperative Education

The Cooperative Education (CO-OP) Program provides eligible students the opportunity to earn college credits for "new learning" in a present or new job.

The Cooperative Education department helps students seeking work experience prepare for the job search by providing workforce development training skills in a mandatory, one-credit seminar component. The seminar component is designed to meet state requirements for workforce preparation skills that include basic resume writing, mock interviewing, time management, Internet job search skills and other tangible job search techniques. The seminar component is required for those students participating in their first work experience, but may be taken separately or prior to the work experience. To earn academic credit for the work experience, each student must develop a written educational plan that includes realistic, obtainable, and measurable learning objectives. Guidance and supervision are provided regularly by faculty sponsors in cooperation with the employer.

For more information, contact the Coordinator for Service Learning and Cooperative Education at (847) 543-2058. See EWE Courses on page 183.

#### Prerequisites:

1. Nine credits toward the student's career or transfer program (12 credits in the specialty option if AAS in CIS).
2. CO-OP Coordinator and faculty sponsor approval.
3. A 2.5 or better grade point average.

Note: Academic credit is awarded for Educational Work Experience that is related to a student's field of study.

#### Dual Credit

Dual credit at the College of Lake County is designed to offer an opportunity for high school students to earn college credit prior to graduating from high school. Through formal agreements with individual high schools, College of Lake County courses that cover content not offered through a high school's Advanced Placement Program can be offered at district high schools. Students enrolled in the College of Lake County course must meet the college's academic proficiencies as identified in the college catalog. High schools should contact the Office of Educational Affairs to receive materials if they are interested in offering a College of Lake County course at their high school for dual credit or for a group of high school students from multiple institutions.

#### 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 Career Resource Center in the Job Center building on the Grayslake Campus for more information about service learning opportunities available at CLC.

#### 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 nation-wide day of volunteering, held annually on the last Saturday in October. Over a hundred students, faculty, staff and community members participate. Volunteer opportunities and agency contact information is available in the Career and Placement Services office in the Job Center.

#### International Studies

The College of Lake County provides students with a variety of courses as well as short-term international study tours which contribute to an understanding of the relationships between the cultural, economic, and political systems of other nations and our own. The college also participates in foreign study programs that give students an opportunity to reside and study in another country for an extended period.

### Resident Foreign Study Program

Studying abroad affords students a unique opportunity to integrate the distinctive resources available in other countries and to enhance and broaden their understanding of these cultures. In addition to course-related travel and activities, students may have the occasion to travel to other countries.

The College of Lake County is a member of the Illinois Consortium for International Studies and Programs (ICISP) which consists of Illinois community colleges and Illinois State University. The consortium has an affiliation with Canterbury Christ Church University College of Canterbury, England, and Salzburg College in Salzburg, Austria. These affiliations permit consortium members to provide their students with a resident foreign study program during 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 for the transfer degree. The College of Lake County also offers other residential international study opportunities as well as work-study and volunteer experiences through its membership in the Council for International Educational Exchange.

Requirements for admission to most foreign study programs include completion of 30 hours of college credit with a minimum GPA for 3.0 and two letters of reference. For more information, contact the ICISP Coordinator, Bob Kerr, A237, (847) 543-2533 or Admissions and Records Specialist, Juan Arroyo (847) 543-2733.

### Field Study

In addition to providing education in the classroom, lecture hall, and laboratory, CLC faculty members also direct field study. A variety of biology, geology, history and humanities courses make the Rocky Mountains, Europe, Asia, or Latin America their classrooms. The class schedule provides information about the specific field study or travel courses which 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 leadership roles in and outside of the classroom. Acceptance into the Honors Program is determined by the CLC Honors Advisory Committee (HAC). The HAC reviews the following criteria:

#### Required:

- Application form
- 500 word statement of interest
- High school and/or college transcripts (unofficial)
- ACT scores of 25 or combined SAT score of 1000
- A high school GPA of 3.5 (on a 4.0 scale)
- A college GPA of 3.5 (on a 4.0 scale)

Acceptance will be determined based on a candidate's ability to meet at least two of the above guidelines. Meeting these requirements, however, does not guarantee acceptance into the program.

For questions about honors coursework or program requirements, please contact the Assistant Vice President of Educational Affairs at (847) 543-2418.

### Telecourses

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. For more information about telecourses, call the Educational Technology Department at (847) 543-2074.

### Online Options

The college also allows students to take courses from the convenience of their own homes using the Internet. In addition to the many courses now offered on the Internet, the college also offers all the courses leading to the Associate in Applied Science degree in the Computer Information Systems Microcomputer Applications option and for the Microcomputers for Business certificate option. Also available online are many of the courses for the Associate in Arts degree with a business concentration and the Associate in Applied Science in Multimedia Communications.

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, online courses have proven to be effective alternatives to on-campus courses for many people. 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 and student support services available online.

The IVC can be accessed on the Internet at [www.ivc.illinois.edu](http://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](mailto:kdahl@clcillinois.edu).

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***ADMISSION, ADVISEMENT***

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***AND NEW STUDENT  
INFORMATION***

## 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 Application for Admission 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 277 for an Application for Admission form and specific requirements.

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

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 274 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:

2.1 High School Transcript showing successful completion of the following:

- **Four years of English** emphasizing written and oral communication and literature.
- **Three years of social science** emphasizing history and government.

- **Three years of mathematics** including introductory through advanced algebra, geometry, trigonometry, or fundamentals of computer programming.
- **Three years of science** including laboratory science.
- **Two years of electives** from any combination of foreign language, music, vocational education or art.

Up to three of the 15 required units of course work may be redistributed by deducting no more than one unit from each of the categories of social science, mathematics, science, and electives, and completing those units in one of the other categories.

- 2.2 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.
- 2.3 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 A.A., A.S., A.E.S., or A.F.A. degree in this catalog;   |
| Science:         | Any Lab Science course from the list required for an A.A., A.S., A.E.S. or A.F.A. degree in this catalog (see pages 51-66);                                   |
| Social Sciences: | Any social science course from the list required for an A.A., A.S., A.E.S., or A.F.A. degree in this catalog;   |
| Humanities:      | ENG 122-English Composition II or any humanities course from the list required for an A.A., A.S., A.E.S., or A.F.A. degree in this catalog (see pages 51-66). |

Please see the section on Advising on page 19 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 93-150 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 16 or 17 Years of Age

A student who is 16 or 17 years of age 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 Application for Admission form.
2. Completed CLC Secondary School Reference form signed by a school representative and a parent.

## For Students Who Are Younger Than 16 Years of Age

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 under sixteen years of age is required to submit the credentials outlined below to the Office of Admissions and Records:

1. Completed CLC Application for Admission form.
2. Completed CLC Secondary School Reference form.
3. One of the following forms of evidence demonstrating exceptionally high academic ability (not required if student enrolls for only continuing education activities):
  - a. Official transcript(s) of school record(s) showing
    - 1) Successful completion of the most advanced course offerings by the high school in the subject area in which the student wishes to enroll at CLC
    - or
    - 2) Successful completion of all courses offered by the high school in the subject area in which the student wishes to enroll at CLC.
  - b. Official scholastic aptitude and/or achievement test score reports ranking the student in the top 10 percent in the subject area in which the student wishes to enroll at CLC.
4. Recommendation from the high school department chairman in an area comparable to the intended course or program of study at CLC.
5. Recommendation from the dean at CLC who is responsible for the course or program of study in which the student wishes to enroll at CLC.

## For International Students

All international applicants who need an I-20 to apply for an F-1 student status (student visa) MUST complete the International Student Application and meet the following requirements:

You are eligible to apply for admissions to the college if you are at least 17 years of age, have completed the equivalent of an American secondary school education (12 years of formal education) and have submitted the appropriate diplomas.

1. International students must receive an F-1 Student Visa for admission to the United States to study at CLC.
2. They must be accepted as a student at the college, presenting the equivalent of a U.S. high school diploma (transcript translated into English by an approved accreditation bureau) with the requisite credits for admission to the College. This is possible even if the student needs to take English as a Second Language. However, until the student completes the necessary courses or passes the Academic Proficiency Test, the student is able to take only a limited number of courses in the Skills Enhancement Program or English as a Second Language.
3. The student must show financial responsibility by demonstrating that he or she has access to \$18,000 U.S. dollars in a bank account (amount subject to change) that can be used to support the student. The money does not have to be in the student's name. If there is a sponsor, the sponsor must sign an affidavit attesting that the sponsor is

- willing to use the money to support the student. Should the student be bringing dependents an additional \$5,500 per academic year for the spouse and an additional \$4,500 for each child must be available and certified.
4. The student must intend to return to his/her home country at the end of the period of study.
  5. At this point, CLC may issue an I-20 immigration form to the student. The student must take the I-20 form, financial forms, letter of acceptance to CLC, and evidence of intent to return to his or her home country to the U.S. Consulate Office in his or her home country. This office actually issues the F-1 visa.
  6. The student must be a full-time student, registering for at least 12 academic credit hours for each of the fall and spring semesters.
  7. The student must pay out-of-state tuition.
  8. Each student must carry the health/accident insurance policy approved by CLC for international students.
  9. International students may not work except under limited circumstances.
  10. Deadlines: July 1 for fall semester, November 1 for spring semester and April 1 for summer session.

For more information about the admissions requirements for international students or to request an International Student Application package, please contact the Admissions & Records Office-International by:

Telephone: (847) 543-2733  
Fax: (847) 543-3733  
E-mail: [jarroyo@clcillinois.edu](mailto:jarroyo@clcillinois.edu)

## Registration Steps For Credit Classes: New Students

### *Before you start ...*

Students thinking about enrolling at the College of Lake County for the first time may want to start with a campus tour. Call the Student Recruitment Office at (847) 543-2090 for an appointment. For information on financial aid, contact the Financial Aid Office, (847) 543-2062.

### *Step 1: Submit an Application for Admission & Required Credentials*

Submit a completed CLC Application for Admission to the Admissions and Records Office. International students, and students under 18 must fill out additional forms for admission. Also provide credentials as proof for meeting proficiency prerequisites. Degree and certificate seeking students that request an evaluation of prior college transcripts must do so through the Admissions and Records office.

### *Step 2: Meet Prerequisites*

Meeting prerequisites is necessary before enrolling in most college courses. You can meet the academic proficiency prerequisites by demonstrating English language proficiency and math proficiency. See page 274 for specifics. You may need to take placement tests for math, chemistry, computer information systems or other courses. Call the CLC Testing Center at (847) 543-2076 for information on testing times. Many courses require prior courses as prerequisites, and some have co-requisites (courses that must be taken simultaneously).

### *Step 3: Attend a New Student Orientation and Register for Classes*

All degree-seeking students should attend a New Student Orientation Session to learn about the college's programs, services, admission requirements and registration procedures. See the calendar published in the class schedule for dates and times, or call the Office of Student Recruitment at (847) 543-2090. Registration for orientation sessions is required. Students who are not seeking a degree are encouraged to attend an Advisement Information Meeting for information about programs, services, requirements and procedures. Dates and times for these meetings are also published in the class schedule, or call the Counseling Center at (847) 543-2060.

### *Step 4: Meet with a Counselor*

Meet with a counselor to help you with educational planning. If you are unable to meet both the English language and math proficiencies, you are required to meet with a counselor before you register. If you are a degree-seeking student and are unable to meet one of the proficiencies, you are required to meet with a counselor or advisor to select the most appropriate courses. Counselors are available 8 a.m. through 8:30 p.m., Monday through Thursday, and 8 a.m. through 4:30 p.m., Friday, in Room C110 at the Grayslake Campus (847-543-2060). Counselors are available by appointment at Lakeshore Campus (847-543-2186) and Southlake Educational Center (847-478-1833).

### *Step 5: Complete Registration*

Use the class schedule to select your classes. You may register on the web at [www.clcillinois.edu/selfserv.htm](http://www.clcillinois.edu/selfserv.htm) or by touch-tone telephone (847) 223-1111. If you need assistance to register, you may come to the Admissions and Records office in B101 at the Grayslake Campus, the Student Services office at the Lakeshore Campus or the main office at the Southlake Educational Center. See the current class schedule for registration dates and times, plus additional satellite registration sites.

### *Step 6: Pay Tuition and Fees*

Pay tuition and fees by the due date given when you register. Payment through student self-service is available. The college offers several payment options, and if you qualify, financial aid may be available. See pages 21-26 for tuition and fees and financial information.

## Academic Advisement and Counseling

Student success in college is linked with quality academic advising.

### Academic Advisement:

All continuing CLC students who have selected a program of study should meet with a faculty advisor.

All full-time faculty members are also academic advisors and are available when classes are in session during the fall and spring terms. For information on how to contact a faculty advisor, call the appropriate division office listed below. Division offices are located on the Grayslake Campus.

#### Biological and Health

Sciences .....(847) 543-2042 .....Room C140

Business .....(847) 543-2041 .....Room A143

#### Communication Arts,

Humanities and Fine Arts (847) 543-2040 .....Room B237

#### Engineering, Math and

Physical Sciences .....(847) 543-2044 .....Room B162

Social Sciences .....(847) 543-2047 .....Room A244

### Counseling:

Students meet with a counselor if they are

- **undecided** on a program of study
- **new** to CLC
- **deficient** in language or mathematics skills
- **returning** to CLC after two or more semesters of absence
- **seeking transfer** information for a specific institution
- **on academic restriction**
- **in need of more extensive counseling services**

(See page 28 for list of counseling services and locations.)

### Advising Prior to Registration

The following students must contact an appropriate advisor or counselor before registering:

- Degree or certificate seeking students prior to registering for their **19th** and **41st** transfer or career credit hour must see a faculty advisor
- Students on **academic restriction** must see a counselor.
- Students deficient in language or math competencies should see a counselor
- Conditionally admitted students who plan to transfer and have exceeded 40 career or transfer credits must see a faculty advisor (See Admission to A.A., A.S., A.E.S., or A.F.A. Degree Programs for more information on conditional admit on page 16.)

For information on referrals, see Academic Advising and Counseling, or call the Counseling Center at (847) 543-2060.

### Graduation Planning

Advisors help students who have decided on a program of study and have selected courses to meet all the graduation requirements for an A.A., A.S., A.E.S., A.F.A., or A.A.S. degree. Counselors help A.A. and A.S. students who are undecided on a major.

### Advising Responsibilities of Advisors

Academic advisors help students with long-term and short-term academic planning, assist students in developing a course schedule, provide information about programs of study, explain CLC graduation requirements and College policies, and refer students to other College staff and services.

### Advising Responsibilities of Students

Students are responsible for contacting an academic advisor and preparing for the advising session by being familiar with the information in the CLC catalog and graduation requirements, reviewing the course schedule each semester, having an idea of the courses they plan to take, and being ready to discuss their interests and/or goals. Students who are unclear about their educational goals should seek assistance from a counselor to develop those goals.

## Steps to Graduate

1. Meet with an advisor or counselor 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 semester is during the first four weeks of that semester, and the deadline for students completing their coursework in the spring or summer semester is the first four weeks of the spring semester.
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 fall graduates and spring/summer candidates.

## **FINANCIAL INFORMATION**



## 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 2004 are as follows:

In-District	
Tuition (per credit hour)	\$57.45
Comprehensive Fee (per credit hour)	\$ 5.30
Technology Fee (per credit hour)	\$ 1.25
Total Tuition and Fees	\$64.00

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.*

## 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" unless they are:

- Federal Job Corps workers stationed in the district
- Inmates of State or Federal correctional/rehabilitation institutions located in the district
- Students attending under the provisions of a charge-back or contractual agreement with another community college

- Students attending a post-secondary educational institution in the district who have not demonstrated through documentation a verifiable interest in establishing permanent residency
- Unemancipated students under eighteen who have at least one (1) parent, step-parent, or court-appointed guardian who meet the above criteria.

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 is not a legal resident of the State of Illinois, including international students and other non-immigrant aliens. A legal resident is a citizen, a legal permanent resident or one who can demonstrate evidence of intent to become a legal permanent resident.

## 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. Contact the Financial Aid Office at (847) 543-2062 for details.

## 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 Student Recruitment Office at (847) 543-2090.

## **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.

## **Fees**

### **Commencement**

A commencement fee, which includes cap and gown rental, 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.

### **Transcripts**

A fee of \$1.00 is charged for each official transcript of a student's complete academic record.

### **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**

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

### **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 current class schedule.

### **Approximate Costs for Full-Time Students**

Many students wonder about what they will have to spend to attend CLC for an entire year as a full-time student. To help answer that question, the College has developed two standardized budgets for the 2004-2005 school year. There may be minor variations in these figures due to tuition increases or changes in federal guidelines.

### **Approximate Dependent Student Budget**

(Based on 9 months)	
Tuition and Fees	\$2,048.00
(Based on 16 credit hours per semester)	
Books and Supplies	900.00
Room and Board	1,300.00
Personal Expenses	1,200.00
Transportation	\$1,000.00
	<u>\$6,448.00</u>

### **Approximate Independent Student Budget**

(Based on 9 months)	
Tuition and Fees	\$2,048.00
(Based on 16 credit hours per semester)	
Books and Supplies	900.00
Room and Board	3,000.00
Personal Expenses	1,500.00
Transportation	1,300.00
	<u>\$8,748.00</u>

## **Joint Agreements and Tuition Chargeback for CLC District 532 Residents**

Students who wish to pursue programs (certificates and associate degrees) not available at the College of Lake County may do so in one of two ways. First, CLC has joint agreements with neighboring community colleges for a number of programs (certificates and associate degrees). Through joint agreements, residents of District #532 may attend another community college at the other school's in-district rates. A joint agreement is valid for one year and will need to be renewed upon the start of each academic year. All joint agreements are listed on pages 47-48 of this catalog.

A second option for students wishing to pursue programs not available at CLC is 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 associates degree or certificate and not for individual courses. Students who wish to apply for a joint agreement or a charge-back may do so by contacting the Office of the Assistant Vice President for Educational Affairs at (847) 543-2418.

## **Tuition Charge-back 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.

## **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.

If students decide that they are unable to complete a course, it is their responsibility to officially withdraw from (i.e. drop) the course by calling (847) 223-1111, using the Web at [www.clcillinois.edu/selfserv.htm](http://www.clcillinois.edu/selfserv.htm), or by going to either the Lakeshore Campus, Southlake Educational Center, or the Admissions and Records Office at the Grayslake Campus.

The College may administratively withdraw students who have never attended the class or have attended so sporadically that they would not be able to complete the course requirements.

## **Withdrawals and Grades**

If a student finds it necessary to withdraw from a course or courses, the date on which the notification is recorded by the Admissions and Records Office is the effective date of withdrawal. If the effective date occurs before the last day to withdraw and receive a refund (see "Withdrawals and Refunds"), the student's permanent record will not reflect enrollment in the course. If the effective date occurs after the date of withdrawal with full refund (15% point) but before the end of the 68 percent point between the start and end of the class, a grade of "W" will be recorded.

Students may withdraw after the 68 percent point between the start and end of the class only with the instructor's consent. Withdrawing without obtaining the instructor's consent will cause a grade of "F" to be assigned. If the student obtains the instructor's consent and is passing prior to completion of the class requirements, a grade of "W" will be reported on the final class list. If the student is not passing, a grade of "F" will be reported.

The withdrawal deadline date will be prorated for classes that are not a regular semester in length.

## **Withdrawals and Refunds**

Tuition and fee refunds will be issued to eligible students based upon the effective date of withdrawal, which is determined by the date a request for withdrawal is recorded by the Admissions and Records Office.

### ***Refund Schedule***

***Withdrawal on or before start of class=100 percent refund***

***Withdrawal before 15 percent of***

***class days pass=100 percent refund***

***Withdrawal after 15 percent of class days pass=no refund***

### ***One-day classes:***

***Withdrawal the day before class=100 percent refund***

***Withdrawal on or after 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 application submitted to the Dean of Business Services and Finance. An appeal of the Dean's decision may be directed to the Vice President for Administrative Affairs who will process the appeal or direct it to the appropriate Vice President.

### **Installment Payment Service Charge**

For individuals using the College's installment payment plan, a service charge of 1 percent of the outstanding balance per billing period will be assessed.

### Office of Financial Aid

Room B-114, (847) 543-2062  
School Code: 007694

#### Financial Aid at a Glance

(information provided by "The Student Guide; Financial Aid 2004-2005" from the U.S. Department of Education)

#### What is federal student aid?

Federal student aid is financial help for students enrolled in eligible programs to cover school expenses, including tuition and fees, room and board, books and supplies, and transportation. Most federal aid is need-based. The three most common types of aid are grants, loans and work-study.

Grants are a form of financial aid that does not have to be repaid. Federal Pell Grants for the 2004-05 school year will range from approximately \$400 to \$4,050. Federal Supplemental Educational Opportunity Grants (FSEOG) range from \$100 to \$4050. For Illinois residents, the Illinois Student Assistance Commission (ISAC) offers a tuition grant to eligible students. The maximum amount of the award is limited to a percentage of tuition and comprehensive fees.

There are financial aid programs designed specifically for veterans of the armed forces. For more information, please contact our office.

Loans are borrowed money that must be repaid with interest. Maximum loan amounts depend on the student's year in school. Currently, the Federal Family Education Loan is available to students attending the College of Lake County.

- Federal Family Education Loan (FFEL) Program: private lenders provide federally guaranteed funds. FFELs include Subsidized Stafford, Unsubsidized Stafford and Parent Loans for Undergraduate Students (PLUS).

#### Students must

- Be a U.S. citizen or eligible non-citizen with a valid Social Security Number;
- Have a high school diploma or a General Education Development (GED) certificate or pass an approved ability-to-benefit (ATB) test;
- Enroll in an eligible program as a regular student seeking a degree or certificate from CLC. (Note: all programs under 30 credit hours are considered to be ineligible for federal financial aid.);
- Register (or have registered) with the Selective Service if you are a male between the ages of 18 and 25;
- Meet the satisfactory academic progress standards set by the College;
- Certify that you will use federal aid only for educational purposes;
- Certify that you are not in default on a federal student loan and that you do not owe money on a federal grant;
- Certify that you have never been convicted of possessing or selling illegal drugs.

#### How do students apply for federal student aid?

- 1) **Complete the Free Application for Federal Student Aid (FAFSA) on the Web ([www.fasfa.ed.gov](http://www.fasfa.ed.gov)) or by completing a paper copy available at the Financial Aid office in B114.**
- 2) **Review your Student Aid Report (SAR).**

After you submit your FAFSA, the Department of Education will send you a SAR. The SAR confirms the information reported on your FAFSA and will tell you your Expected Family Contribution (EFC). The EFC is an index of need that our office will use to determine the amount of federal student aid for which you qualify.

- 3) **Contact the Office of Financial Aid.**

Talk with our office to make sure that your file is complete and you can be awarded. After a review of your SAR, we will prepare a letter outlining your aid eligibility.

#### Who can I contact if I have questions?

For more information about financial aid programs, contact the Office of Financial Aid.

#### Office Hours:

Grayslake: Monday-Thursday — 8 a.m. - 8 p.m.  
Friday — 8 a.m. - 4:30 p.m.

Room B-114  
(847) 543-2062  
(847) 543-3062 (fax)

#### Lakeshore: *(fall and spring hours only)*

Wednesday — 9 a.m.-1 p.m.  
Tuesday — 4 p.m. - 8 p.m.

*For summer hours at Lakeshore campus please call the office of Financial Aid at (847) 543-2062.*

### Financial Aid Procedures and Guidelines for 2004-05

#### Bookstore Vouchers

Students who have anticipated credit balances on their student account due to financial aid will be allowed to charge books in the CLC Bookstore. Vouchers must be used prior to the conclusion of the second week of the semester. Please contact the Office of Financial Aid for exact dates and to determine if you are eligible to charge your books.

#### Financial Aid Disbursements

The Office of Financial Aid will credit funds to your student account according to a disbursement schedule determined each semester. Please contact the Office of Financial Aid for an explanation of when your aid funds will be released.

**Important reminder:** The Business Office will issue refund checks to students based on credit balances approximately 10 days after financial aid funds have been credited to your student account.

### Ineligible Programs and Courses

An ineligible program is defined as any program of study (associate degree or career certificate) that is less than 30 credit hours in length. Programs with the prefixes ABE, ABR, ADE, ASE, CNA, DSR, DEV, EMT, ESL, GED, MLT, MST, PERSN, PRCED, PRTRN, VOCRS, and VST are ineligible for financial aid.

NUR 110 – Nurse Assisting is a 7 credit hour certificate program that is not covered by financial aid.

An ineligible course is defined as any course that does not apply to any associate degree or career certificate. Academic courses numbered between 001-109 are ineligible for financial aid.

Financial Aid is not authorized for audit courses.

### Withdrawing from Classes

If you completely withdraw (cease to be enrolled in any classes) from CLC prior to the first 60% of the semester being completed, a percentage of your financial aid will be returned to the appropriate federal and/or state agencies. Keep in mind that a complete withdrawal may require that you return any unearned financial aid that was previously disbursed to you; as it applies to the return of Title IV Regulations.

### Return of Title IV Funds

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 to 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 or she would be entitled to 25% of their Title IV funds (28 days attended/112 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.

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

### Satisfactory Academic Progress Standards for Financial Aid Recipients

As required and defined by the Department of Education, students receiving Title IV financial assistance (grants, loans and/or work study) must maintain satisfactory academic standing while enrolled in a program that leads to a degree or certificate. Satisfactory academic progress is measured in three ways:

#### Course Completion Rate, Time Frame Limitation and Grade Point Average

You must satisfy all three of these standards of progress to maintain financial aid eligibility. Failing to comply with this policy will result in the denial of your financial aid awards. All CLC students receiving Title IV assistance are subject to an annual review to ensure compliance with this policy. At a minimum, eligibility will be reviewed by the Office of Financial Aid at the conclusion of the Spring term each year, and may be reviewed more often.

#### Course Completion Rate Requirements

Cumulative Completion Rate Requirements:

- Students must successfully complete (receiving a letter grade of "D" or higher) at least 67% of all course credit hours attempted.
- Students successfully completing between 25-67% of all course credit hours attempted will be placed on probation status for the next enrollment period.
- Students failing to successfully complete at least 25% of all course credit hours attempted will be placed on immediate dismissal status for purposes of receiving financial aid.

**Note:** "All course credit hours attempted" include Withdrawals, grades of "Incomplete", courses that are repeated, and non-credit remedial coursework.

#### Time Frame Limitation

Students must complete their program in a timely fashion. Classes may be taken in a manner that is most convenient for the student. Students may enroll in courses during any of the terms of study offered by CLC. A full term of study is defined as 12 or more credit hours attempted. CLC has 3 terms: Fall, Spring and Summer.

## Financial Information

Explanation of the 150% Rule: Degree programs require the completion of 64 credit hours for graduation. Financial aid eligibility is extended until the student attempts 96 credit hours. After attempting 96 credit hours, the student is no longer eligible for any type of financial assistance. For programs less than 64 credit hours in length, the time frame limitation is pro-rated. For example, a 24 credit hour certificate program would require that the student complete their program prior to attempting 36 credit hours.

**Note:** "All course credit hours attempted" include Withdrawals, grades of "Incomplete", courses that are repeated, and non-credit remedial coursework.

### Grade Point Average Requirement

Financial aid recipients must maintain the following cumulative grade point averages. A definition of how grade point averages are calculated is found in the CLC Catalog.

Hours Attempted	Cumulative GPA 0.00-1.49	Cumulative GPA 1.50-1.99	Cumulative GPA 2.00-4.00
0-30 (Freshman)	Restriction	Caution	Good Standing
31 and above (Sophomore)	Restriction	Restriction	Good Standing

### Financial Aid Caution Status

A student will be placed on Financial Aid Probation for failing to meet the Course Completion Rate Requirements and Grade Point Average Requirements as defined by this policy. During the probationary period, the student will maintain their eligibility for financial aid. A student is allowed two (2) consecutive semesters of probationary status. If the student has not complied with the academic standards of this policy prior to the end of their second probationary semester, the student will be denied financial aid in subsequent semesters.

### Financial Aid Restriction Status

A student will be placed on Financial Aid Dismissal for failing to meet the Course Completion Rate Requirements, Time Frame Limitation and Grade Point Average Requirements as defined by this policy. During the dismissal period, the student will not be eligible for financial aid. Eligibility for financial aid will be regained once the student meets the conditions for satisfactory progress.

### Appeal Process

If the student improves their academic performance during the denial period but fails to meet the minimum standards defined by this policy to regain financial aid eligibility, the student may request the Director of Financial Aid to reconsider their Satisfactory Academic Progress status on the basis of their improvement. Only those appeals submitted on the basis of academic improvement during a period of enrollment not covered by financial aid will be considered. An Appeal Form can be obtained from the Office of Financial Aid. A student is allowed to submit a subsequent appeal to the Vice President of Student Development if the appeal is based on circumstances other than academic improvement (ie. sickness, personal affliction, etc.)

## 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 assistance. To learn more about the Foundation's scholarship program, pick up a scholarship booklet in the Financial Aid Office (B114) at the Grayslake Campus. Booklets are also available at the Lakeshore Campus and the Southlake Educational Center.

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 Complex is B148-B152 on the Grayslake Campus. For more information, call (847) 543-2488.

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## **STUDENT DEVELOPMENT**

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### Addressing Student Concerns

An overview of the ways student concerns may be addressed. The Guide for Addressing Student Concerns may be obtained from the Vice President of Student Development Office, Room B108. *This information is also posted throughout the college.*

### Child Care

CLC offers affordable child care at its nationally accredited Child Care Center on both the Grayslake and Lakeshore campuses. A highly qualified staff provides day and evening care for 2½ to 12 year olds in separate programs for preschool and school-aged children. Children are enrolled in advance for limited times based on their parents' class, study, and work schedules. Holiday child care is available for school-aged children on specified days. For more information on fees, times, and registration, call the Grayslake Campus at (847) 543-2053 or the Lakeshore Campus at (847) 543-2150.

### Counseling

The services of professional counselors are available at three locations:

**Counseling Center**, Room C 110, Grayslake Campus, 19351 W. Washington Street, Grayslake, IL 60030-1198  
Hours: Monday through Thursday - 8:00 am - 8:00 pm  
Friday 8:00 am - 4:00 pm  
For appointments, call (847) 543-2060.

**Lakeshore Campus**, Student Services Center, Room 211, 111 North Genesee Street, Waukegan, IL 60085  
For appointments, call (847) 623-8686.

**Southlake Educational Center**, 1120 South Milwaukee Avenue, Vernon Hills, IL 60061  
For appointments, call (847) 478-1833.

Services Available through the Counseling Centers

- **Pre-enrollment counseling** - Counselors assist students in determining the appropriateness of a program and an educational plan prior to registration.
- **Selecting a major** - Counselors work with undecided students to help them select a program and curriculum which meets their life and career goals.
- **Educational development** - Besides working with undecided students, counselors also help students who have not been successful in school and who have been placed on academic restriction. Restricted 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.

- **Career development** - Through assessment techniques and career information, students are helped to set and realize career-related goals. Methods may include individual or group counseling as well as credit or non-credit classes. See PDS 122 in the course section of this catalog.
- **Personal development** - Counselors assist with personal growth and life planning issues and with personal problems that interfere with progress in school by providing individual or group sessions or referrals to appropriate community agencies. See PDS 121 in the course section of this catalog.
- **Transfer planning and information** - Counselors can assist students with transfer planning. Printed Transfer Guides are available outside the Counseling Center (Grayslake) and Lakeshore Student Services Center (Waukegan) for public universities within Illinois and many private colleges. Admission information, including application forms and information on academic programs and transfer scholarships, is also available in the Counseling Center.
- **Information and referral** - Resource information is available in books and on computers in each of the counseling centers. Students may also confer with counselors concerning work, school, community agencies, and resources at the College to resolve personal, academic, and career concerns.
- **Testing** - A counselor can help students gain more knowledge about themselves and how they fit into the world of work through the use of assessment tests.
- **Credit Classes** - Several Personal Development seminars are offered by the counseling faculty. Please see the PDS listings in the course section of this catalog.

### Campus Safety

A truly safe campus can only be achieved through the cooperation of all students, staff, and faculty. For more information, contact the Campus Safety Office 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 Campuses, and the Southlake Educational Center.*

### Grayslake Campus

#### Crime Prevention

Because many crimes are preventable, CLC's Campus Safety Office 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:

- A twenty-four hour a day campus safety personnel escort service is available by request at the Grayslake campus.
- In-house campus phones located throughout the Grayslake campus provide access to the campus safety 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 and 7. Push the button to activate the system.

**Other Services**

The Campus Safety Office 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 regular operating hours while classes are in session there is a trained staff member on duty, and regular campus safety and security inspections are performed by campus safety personnel. Additionally, a Waukegan police officer is on duty during evening hours when classes are in session. These officers will escort students to their vehicles upon request.

**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. One hundred-fifty spaces, on levels two through four, are reserved for the College's use. Only vehicles displaying a valid College of Lake County 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, an electrically powered wheelchair 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 Campus Safety Office 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.

**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 Safety 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 Safety 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 Campus Safety Office (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.

**Health Center**

The Health Center provides physical assessments of health problems and primary care for illnesses and injuries, making referrals when necessary. Health education programs and screening services are offered in cooperation with other College departments and community agencies. Information on HIV infection and other communicable diseases is available. Required immunizations for health career and transfer students are available by appointment. Confidential care is assured. Medical parking for temporary disabilities is authorized through the Health Center. Low-cost health insurance is offered to all full-time and part-time students and their dependents. Information and brochures are available in the Health Center and Activities Office. The Health Center is located in A149 across the hall from the Campus Safety Office on the Grayslake campus. Hours are Monday through Thursday, 8:00 a.m.-10:00 p.m. (when class is in session), and Friday 8:00 a.m.-4:30 p.m. Closed Saturday and Sunday. For appointments, call (847) 543-2064.

**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 thirteen 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 Skyway Community College Conference. The College is noted for its excellence and integrity in athletics. The CLC intramural and recreational programs provide a variety of activities for students, faculty, and staff. For more information, contact the Office of Athletics and Physical Activities at (847) 543-2046.

### Career/Job Search Assistance

The Career Center 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.

Employment opportunities received by the Career and Placement Services office are entered into the college central network database. Job seekers may visit the website at <http://www.collegecentral.com/clcillinois> to register and view openings.

The Career Center sponsors annual job fairs in the spring and summer, and offers on-campus recruiting throughout the year. County, state, and national labor market information is available. Individuals who wish to use any of these services should go to the Career Center in room E101 in person, or call (847) 543-2059.

### 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

The Community College District #532, College of Lake County, recognizes that students are both citizens and members of the academic community. As an individual citizen, each student has freedom of speech, assembly, association, and press, and the right of petition and due process as guaranteed by the state and federal constitutions. As members of the academic community, students have the right and the responsibility for participating in the formulation and review of all College regulations and policies directly affecting them.

Upon enrolling in the College, each student assumes an obligation to conduct himself or herself in a manner compatible with the College's function as an educational institution. If this obligation is neglected or ignored by the student, the College must, in the interest of fulfilling its function and meeting its obligations, take appropriate disciplinary action.

A student may be subject to disciplinary action whenever he or she commits or attempts to commit any act of misconduct, whether it be on the College campus, during class, at an activity, function, or event sponsored or supervised by the College, or any time there is a direct relationship between

such act and the College. An act of misconduct includes, but is not limited to:

1. Academic dishonesty such as cheating, plagiarism, or knowingly furnishing false information to the College
2. Forgery, alteration, or any other misuse of College documents and records, including identification cards
3. Conduct which interferes significantly with the College's teaching, research, administration, or other responsibilities
4. Conduct that endangers the health, safety, or well-being of members of the College community or visitors to the campus, including but not limited to unauthorized and/or illegal possession, use, or distribution of controlled substances, look-alike drugs, or alcohol, as well as unauthorized or illegal use or possession of firearms or any other weapon
5. Violation of specific rules and regulations of the College disseminated to students including those regarding the college campus parking lots, equipment and facilities
6. Failure to comply with directions of College officials acting within the scope of their duties
7. Any conduct which constitutes a violation of a federal or state law or regulation or local ordinance

Students, as citizens, remain subject to federal, state, and local laws; the College Judicial Board is not intended to replace or modify existing law. The College and its students recognize that violation of these laws may lead to prosecution by outside agencies in addition to disciplinary action by the College.

#### Sanctions

##### A. *Reprimand*

A reprimand is an official statement to the student that he or she has been found guilty of misconduct as defined in the preamble of the College of Lake County Student Rights and Responsibilities.

##### B. *Restitution for Damages*

The student may be directed to pay for damages caused by his or her action. Failure to pay damages could result in additional sanctions being applied.

##### C. *Behavioral Contract*

A behavioral contract is a contract under which the student agrees to modify his or her behavior. If the student fails to fulfill the terms of the contract, the Vice President for Student Development could suspend the student and/or apply additional sanctions.

##### D. *Probation*

Disciplinary probation is a warning regarding a student's behavior. The following privileges could be withdrawn:

1. The holding of an office in a campus organization
2. The attending of non-academic activities at the College
3. The representation of the College at any inter-collegiate events

Any subsequent violation of conduct expectations as described in the preamble of the College of Lake County Student Rights and Responsibilities during the probationary period will be evaluated within the context of the student's probationary status. This probation shall be imposed for a specified period and the student shall be automatically removed from probation when the imposed period expires.

### E. Suspension

Suspension denies a student the right to participate in any academic or other activities of the College or to be on College premises for a specified period of time, not to exceed one semester.

### F. Expulsion

Expulsion denies a student the right to participate in any academic or other activities of the College or to be on College premises for a period of time of one or more semesters, varying from one semester to four academic school years, with any and all other conditions as determined by the College. Students expelled within a semester or summer term will be administratively withdrawn from classes.

Reinstatement is contingent upon the assessment by College personnel of the individual's written request for reinstatement and a review of the initial violation causing expulsion, as well as upon the individual's agreement to adhere to the behavioral expectations clearly delineated in the preamble of the *College of Lake County Student Rights and Responsibilities*, and his or her acknowledgment of the fact that any violation would result in indefinite expulsion.

Copies of the *Student Rights and Responsibilities* policy, including due process procedures, may be obtained either at the Student Activities Office, C101, or at the Vice President for Student Development Office, B108.

### Restriction

Students may be restricted (i.e. barred) from adding or dropping courses and/or receiving grade reports and transcripts for the following general reasons:

- **Financial/Materials:** A properly authorized agency of the College may restrict a student who has failed to meet financial obligations or return materials to the College.
- **Judicial:** The Vice President for Student Development may restrict a student who is under disciplinary review, or has been suspended or expelled, or contact a student regarding pending judicial or administrative proceeding against the student.

- **Condition of Registration:** The Admissions and Records Office may restrict a student who has not fulfilled a duly established condition of registration.

### 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. The College of Lake County official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College of Lake County official to whom the request was submitted, that official will direct the student to the official to whom the request should be addressed.
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. Additional information regarding the hearing procedures will be provided to the student when he or she is notified of the right to a hearing.
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. One case in which disclosure without consent is permitted is that of disclosure to school officials with legitimate educational interests. 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. 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. (NOTE: FERPA requires an institution to make a reasonable attempt to notify the student of the records request unless the

## Student Development

*institution states in its annual notification that it intends to forward records on request.)*

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

Any information that is NOT a part of directory information must be requested by the student in writing through the Admissions and Records Office.

### 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

1. A student should discuss any academic concern and, if possible, resolve the matter with his or her instructor within one calendar year of the initial concern.
2. If the concern is not resolved, the student should meet with the appropriate Dean.
3. The Academic Dean informally reviews the concern and, when appropriate, involves other staff members such as the Vice President for Student Development, counselors, the student's other instructors, the Learning Assistance Center staff, and/or other Deans.

The Dean makes personal notes but no formal record.

The Academic Dean renders a decision, including the rationale for the decision.

4. If a student wishes to appeal the Dean's disposition, a formal process is instituted by the student's completing a statement indicating the concern, the desired outcome, and the rationale. The statement is submitted to the Dean.

The Dean asks the instructor to write a statement of his or her position, including supporting rationale. The Dean then develops his or her analysis and recommendation and provides the student with his or her written decision.

5. If the student wishes to further appeal, the concern is then submitted to the Executive Vice President for Educational Affairs. The Dean sends his or her statement and the instructor's statement to the Executive Vice President for Educational Affairs who analyzes the situation and develops his or her recommendation.

6. If the matter is not resolved, the President will address the issue, reviewing all materials and, if appropriate, conducting additional personal conferences. If the issue is not resolved, the student has the option to have the President present the concern to the Board of Trustees.

## 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, 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.

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

The entire main campus is smoke-free except for the designated smoking areas in Lancers Cafeteria and the Building 1 Annex. Lakeshore Campus is smoke-free, except for a designated area in the lower level. Southlake Educational Center is entirely smoke-free.

## Services for Students with Disabilities

CLC's Office for Students with Disabilities, located in the LAC of the Grayslake campus, provides information, guidance, and support to students through a variety of services and state-of-the-art technology and equipment. The Adaptive Technology Lab in room L113 features a broad range of software, hardware, and auxiliary aids that promote accessibility both in the department and throughout the school. Other commonly utilized services include sign language interpreters, note takers, adaptive furniture, tape recorders, three-wheel scooters, magnification devices, and testing accommodations.

Students must request service with a trained staff member each semester before accommodations are made, and all requests for services must be supported by appropriate documentation of disability. If documentation is very old or incomplete, CLC reserves the right to request further documentation before granting specific requests. After services have been approved, students complete an Instructor Notification Form, stating their particular accommodations. The student is responsible for giving the form to their instructor and discussing the accommodations they will need. Additional information regarding documentation and services may be obtained by calling (847) 543-2474 or

## Student Development

(847) 223-0134 (TTY). Students requiring accommodations should give our office timely notice of their needs so that reasonable accommodations can be assured. All 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 Act of 1973 and the Americans with Disabilities Act of 1990. Compliance concerns should be indicated to the Director of the Office for Students with Disabilities and then directed to the Assistant Director of Human Resources/Affirmative Action Officer, B146, (847) 543-2216 and/or the Vice President for Student Development, B108, (847) 543-2048.

## 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 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) 543-2287.

### 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 Director of Student Activities, C101, (847) 543-2287 for assistance in sorting out options and identifying chairpersons.

## Student Body Profile

The College of Lake County student body reflects the diversity of the Lake County community. Over 15,825 students attended the college in the fall of 2003. These students represent a wide range of age groups, gender, racial and ethnic backgrounds.

In 2003, 20 percent of students graduating from Lake County public high schools in the spring enrolled at the College of Lake County in the fall. Students in the eighteen to twenty-four year age group made up forty-eight percent of the student body. Students aged twenty-five to thirty-four comprised the second largest segment or twenty-three percent of the total. The average age of the student body was twenty-nine years old. Minorities comprised 34 percent of the student body. Hispanic students accounted for the largest single minority group (19%).

The College offers programs and schedules which provide a great deal of flexibility for students. The majority of students (74%) attended part-time. Evening students outnumbered day students 52 percent to 41 percent. Seven percent of students attended classes primarily on the weekends. College studies indicate that students who continue their education after graduating from CLC are well prepared for their classes. In fact, when CLC students transfer to a four-year school, they do as well or better than their fellow students. Among the students who entered the labor market after completing an AAS degree or certificate program, 79 percent found work in fields related to their area of study, and 85 percent reported they were satisfied with their jobs.

## 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 and Junior 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.

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## ***ACADEMIC INFORMATION***

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## ***AND REGULATIONS***

## 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 both the Grayslake and Lakeshore campuses.

### Testing Center

The Testing Center is a centralized testing service where students can complete the GED, ACT, CLEP, DANTES, Academic Proficiency Test (APT), telecourse 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, or call (847) 543-2120 or (847) 543-2121 for the Lakeshore 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 Campus and at the Lakeshore Campus.

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, is available in the LAC to CLC students who need additional help with their courses. Appointments may be scheduled with qualified tutors in most subject areas. Drop-in tutoring is available in writing, mathematics, and chemistry. For more information, call (847) 543-2076 or (847) 543-2457.

### 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. Students requesting accommodations must complete a Request for Services Form before accommodations are made. 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 33.

## 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 both the Grayslake and Lakeshore 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 - 10
- Continuing Education/Economic Development - 2
- Communication Arts, Humanities & Fine Arts- 4
- Engineering, Math, and Physical Sciences - 8
- Learning Resource Center - 4
- Lakeshore Campus - 4
- Social Science - 1
- Southlake Educational Center - 3

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 PC, Macintosh, 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 Educational Technology Department at (847) 543-2074.

## 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 12 semester hours of transfer or career courses during a semester are recognized by placement on the **College Honor List** for that semester.

Students who have earned a grade point average of 3.0 (B) or higher while enrolled in 6 to 11.50 semester hours of transfer or career courses during a semester are designated as **Special Commendation Recipients**.

### 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 - 4.0

## Academic Standards

To help guide and measure students' academic success, the College has developed Academic Standards. *Note: The Academic Standards policy is currently under review. Students will be notified of any changes.*

### 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. (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 students must complete to remain in good standing.

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

*NOTE: Calculation of courses attempted for sixteen-week courses is computed after the end of the fourth week for each credit course in which a student is enrolled. A comparable ratio applies for courses of other lengths.*

### 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:

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

### 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 two successive semesters are prohibited from taking courses the following fall or spring semester (summer excluded), except for Adult Education, Continuing Education, and Business and Industry Center courses.
2. Students have the right to appeal their suspension to the Academic Standards Appeals Board.

### 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 Vice President for Student Development.

## 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 Academic Standards Appeals Board.

### 2. Role of the Appeal Board

The Appeals Board reviews requests for re-enrollment on a case by case basis. The Board may determine whether a meeting with a student submitting an appeal is warranted. The Board is composed of an administrator, a representative from the faculty senate, and a representative from the student senate.

### 3. Grounds for Appeal

Students who choose to appeal their suspension must submit documentation to support the extenuating circumstances which resulted in failure to meet the grade point average requirement under Academic Standards Policy.

Extenuating circumstances may include but are not limited to the following areas:

- Death in family
- Prolonged hospitalization or serious illness
- Significant change in lifestyle made to adjust to the demands of attending college (i.e., cut down from two jobs to one)
- Personal crisis (i.e., divorce, illness of family members, etc.)
- Other extenuating circumstances

### 4. 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 Center 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 the Counseling Center or Lakeshore Student Services Center.
- c. The Academic Suspension Appeal Form will be forwarded to the Vice President for Student Development Office to schedule an appeal review. An Appeal Board hearing will be scheduled within five (5) working days of the receipt of the appeal form. The students may be asked to meet with the Appeals Board if the Board deems it necessary.
- d. The decision of the Appeal Board may be appealed to the Vice President for Student Development within five (5) working days of the Board'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 will be designated as 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.

### 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 automated registration system; 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 withdraw/refund schedule (Policy 421). See page 23 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 CLC 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.
- 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), DANTES, 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:

- Counseling Center, Room C110, (847) 543-2060.
- Learning Assistance Center, Testing Center, first floor of LRC, (847) 543-2076.
- Biological/Health Sciences Division, Room C140, (847) 543-2042.
- Business Division, Room A143, (847) 543-2041.
- Communication Arts, Humanities & Fine Arts Division, Room B237, (847) 543-2040.
- Engineering, Mathematics/Physical Science Division, Room B162, (847) 543-2044.
- 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 DANTES must ask the Educational Testing Service (ETS) to send an official transcript of their scores to the Admissions and Records Office at the College of Lake County.

The earning of credits-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 Entrance Examination Board, through their local high schools. AP test scores determine specific placement and/or college credit.

### College Level Examination Program (CLEP)

CLEP 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.

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 only through the Testing Center. The fee is \$65 per test (subject to change). Call (847) 543-2076 or (847) 543-2457 for information.

CLC is a military friendly test center. Members of the U.S. Armed Forces using CLC's CLEP services pay only a modest registration fee of \$15 because the exams themselves are funded by DANTES. Appropriate military identification is required for testing.

### DANTES Subject Standardized Tests

The DANTES Program includes tests in over 50 subjects. The series of tests assess learning in traditional academic, vocational/technical and business subjects. While DANTES tests have been used by United States military personnel since World War II, they are now available to civilian students seeking introductory college level credit for education acquired in nontraditional environments. The DANTES testing program is offered through the Educational Testing Service (ETS). A list of DANTES tests is located in the Counseling Center, the Learning Assistance Center, and the division offices. DANTES tests are usually offered on the second Tuesday evening of the month through the Testing Center, first floor of LRC, (847) 543-2076. Call for an appointment. The fee is \$65 per test with an additional charge if an examinee changes the testing date. 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) 543-2365.

### Challenge Exams (CH)

With the recommendation of an appropriate instructional staff member, students may "challenge" a course at CLC to demonstrate knowledge in a particular subject area. Credit will not be awarded by CLC for examinations unless the student is or has been enrolled in credit course work at the college or has been accepted into a certificate or degree program. The fee for each challenge exam is \$12 per credit hour with a minimum fee of \$36 per course. Students interested in the challenge examination process should consult the appropriate division office listed below:

- Biological/Health Sciences Division, Room C140, 543-2042
- Business Division, Room A143, 543-2041
- Communication Arts, Humanities & Fine Arts Division, Room B237, 543-2040
- Engineering, Mathematics & Physical Sciences Division, Room B162, 543-2044
- Social Science Division, Room A244, 543-2047
- Cooperative Education, Job Center of Lake County, Room E101, 543-2058

## 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.

## College Graduate Guarantees

To assure the quality of its transfer and career degree programs, the college guarantees successful transfer of courses for graduates of the Associate in Arts and Associate in Science degree programs. It also guarantees job competencies for graduates of the Associate in Applied Science programs according to procedures published annually in the college catalog.

### Guarantee of Transfer Credit

The College of Lake County guarantees to its Associate in Arts, Associate in Science, Associate in Engineering Science, and Associate in Fine Arts graduates the ability to transfer course credits to Illinois public colleges and universities which 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 Educational Affairs 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.

**Guarantee for Job Competency**

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 credit 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) 543-2418.

**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 Average	A	Excellent 4 Grade Points
	B	Good 3 Grade Points
	C	Average 2 Grade Points
	D	Below Average 1 Grade Point
	F	Failure 0 Grade Points
Not Calculated in Grade Point Average	I	Incomplete
	N	Requirements Not Fulfilled
	O	No Grade Received
	P	Satisfactory
	R	Repeated
	W	Withdrew
	X	Audit

The P and N are used to grade non-credit Continuing Education courses, English modules, and Academic ESL classes. Adult Education, Continuing Education, and Basic Skills courses are not computed in a student's grade point average. (Basic Skills courses include: ENG 108, 109; MTH 101, 102, 104, 108, 109).

NOTE: Although CLC does not compute the grades of basic skills 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.

### 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.

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 Admission 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.

### 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 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 U.S. 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.

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**PROGRAMS OF INSTRUCTION**

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**AND GRADUATION  
REQUIREMENTS**

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## Associate Transfer Programs

CLC's associate transfer programs allows 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. Only fifty-two percent of those who transferred without a degree had graduated or were still enrolled with an average GPA of 2.58. The Illinois Community College Board released the study in 1986.

The College of Lake County successfully prepares students for higher level courses. Students enjoy their programs at CLC and successfully transfer their credits to four-year schools. This is especially true for students who earn an Associate Transfer Degree. CLC provides the Associate in Arts, the Associate in Science, the Associate in Engineering Science, and the Associate in Fine Arts degrees to individuals interested in pursuing a baccalaureate degree at a senior college or university. The degree the student chooses to pursue should be based on the student's proposed major at the 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.

### 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 statewide agreement that allows transfer of the completed Illinois General Education Core Curriculum between participating institutions. The 60 credits needed for the Associate in Arts and 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.

Below is a list of CLC courses that share an IAI number. Each of the following IAI numbers may only be used one time in the core. You may take a second course with a matching IAI number as an ELECTIVE.

- **F2 900:** ART 121; HUM 125
- **F2 902:** ART 241; ART 242
- **F2 905:** HUM 123, 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
- **M1 900:** MTH 145, MTH 146, MTH 224, MTH 246
- **P1 902L:** CHM 120, CHM 121
- **S4 900N:** GEG 122, GEG 123

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](http://www.iTransfer.org).

#### *How does the IAI General Education Core Curriculum (GECC) fit an Associate degree?*

For students who are working on an AA 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.

#### *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/AS degree) to any participating Illinois college/university. General education requirements will be considered met.

#### *Won't general education courses transfer anyway?*

Most CLC courses will meet the requirements at the four-year college or university, however, many of the colleges and universities evaluate your 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 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.

*Continued on following page.*

*Continued from previous page.*

### **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. The credit evaluators will review transcripts to verify that all necessary courses have been taken and will then indicate on your 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 plan CLC courses to fit the IAI, go to the IAI website at [www.itransfer.org](http://www.itransfer.org), select "Gen. Ed" on the homepage, then select the link for the "Student Planning Worksheet."

The IAI covers courses in certain majors; some elective courses may also be designated as IAI Major courses. To learn more:

- contact the advisor for a specific major
- contact a counselor
- visit the IAI website and link to Majors

### **Transfer Courses of Study**

For those students who have decided upon a major which they will pursue at the senior institution, courses of study relating to a variety of Baccalaureate majors can be found beginning on page 69. These listings are provided as a guide for students.

## **Career Programs**

The College of Lake County offers the Associate in Applied Science degree and career certificates for students desiring to pursue employment in a specialized field. Obtaining this degree or certificate depends on the successful completion of requirements for a specific career program. College of Lake County career programs and their requirements are listed on pages 93-150.

### **CLC Career Programs**

#### **Business Operations**

- Accounting
- Administrative Office Systems
- Computer Information Systems
- Food Service-Culinary Arts
- Food Service-Food Service Management
- Information Processing Specialist
- Microcomputers for Business
- Professional Cook
- Web Programming

#### **Business, Sales, and Management**

- Business Management, Supervision
- Business Management, Marketing
- Small Business Management

#### **Creative Communications**

- Internet Communications
- Multimedia Communications
- Multimedia Presentations
- Professional Technical Communication
- Technical Communication
- Web Development

#### **Health Sciences**

- Certified Nurse Assisting
- Dental Hygiene
- Health Information Technology
- Medical Billing Specialist
- Medical Imaging (Radiography)
- Medical Transcription
- Nursing (Registered)
- Phlebotomy Technician
- Surgical Technology

#### **Natural Sciences**

- Chemical Technology
- Horticulture

#### **Social and Personal Services**

- Criminal Justice
- Early Childhood Education
- Emergency and Disaster Management
- Human Services Program - Adult
- Human Services Program - Exceptional Child
- Human Services Program - Alcohol, Substance Abuse and Addictive Disorders
- Library Technical Assistant

#### **Trades, Crafts, and Industries**

- Automotive Collision Repair
- Automotive Technology
- Basic Machining
- Building Construction Technology
- Computerized Numerical Control Programming
- Electrical/Electronic Maintenance
- Electrician Apprenticeship
- Industrial Maintenance and Repair
- Machine Tool Trades
- PC Technician
- Refrigeration and Air Conditioning
- Tool and Mold Maker
- Welding

#### **Technologies**

- Architectural Technology
- CAD-Drafting Technology
- Civil Technology
- Cisco Networking
- Drafting
- Electronics Engineering Technology
- Electronic Information Technology
- Fire Science Technology
- Mechanical Engineering Technology

## Programs of Instruction and Graduation Requirements

### Joint Agreement Programs

Students interested in joint agreement programs should contact the CLC Office of the Assistant Vice President, Educational Affairs, (847) 543-2418, for program information and authorization to register at the appropriate school.

*Classes in these programs are held at the sponsoring institution, not at CLC.*

#### College of Dupage (630) 942-2800

Glen Ellyn, Illinois  
Travel and Tourism (Certificate)

#### Elgin Community College (847) 697-1000

Elgin, Illinois  
Dental Assisting (Certificate)  
Personal Trainer (Certificate)  
Thermoplastics Injection Molding (Certificate)  
Truck Driving (Certificate)  
Any GS or Adult Education Course

#### Gateway Technical College (262) 564-2200

Kenosha, Wisconsin  
Aeronautics-Pilot Training (AAS)  
Air Frame & Power Plant Mechanic (DIP)  
Automated Manufacturing Systems Technician (AAS)  
Barber/Cosmetologist (DIP)  
Dental Assistant (DIP)  
Electromechanical Technology (AAS)  
Fluid Power Maintenance (AAS & DIP)  
Fluid Power Technology (AAS & DIP)  
Graphic Technologies – Designer (AAS)  
Health Unit Coordinator (DIP)  
Hotel/Hospitality Management (AAS)  
Interior Design (AAS)  
Interpreter Training (AAS)  
Office Systems Technology – Legal Secretary (AAS)  
Materials Management (AAS)  
Medical Assistant (DIP)  
Physical Therapist Assistant (AAS)  
Plastics Manufacturing (AAS)  
Practical Nursing (Certificate)  
Quality Assurance Technician (AAS)  
Radio Broadcasting Technician (AAS)  
Surgical Technician (DIP)

#### William Rainey Harper College (847) 925-6000

Palatine, Illinois  
Bread & Pastry Arts (Certificate)  
Building Codes & Enforcement (Certificate)  
\*Cardiac Technology (AAS)  
Cert. Professional Secretary (Certificate)  
Dietetic Technician (AAS)  
Fashion Design (AAS & Certificate)  
Fashion Merchandising (AAS)  
Financial Institute Management (AAS)  
Financial Management (Certificate)  
Financial Services:  
Commercial Credit Management Specialist (AAS)  
Finance Specialty (AAS)

Real Estate Brokers License Prep.  
Real Estate Specialty (AAS)  
Industrial & Retail Security (AAS)  
Interior Design (AAS)  
Law Office Administrative Assistant (AAS & Certificate)  
Materials/Logistics Management (AAS & Certificate)  
Medical Office Assistant (AAS)  
Operating Room Nurse (Course LLH067)  
Paralegal Studies (AAS & Certificate)  
Sign Language Interpreting (Certificate)

#### McHenry County College (815) 455-3700

Crystal Lake, Illinois  
Developmental Disability Aide (Certificate)  
\*\* Emergency Medical Technician – Paramedic (AAS)  
Early Childhood Education  
(12 hr. Certificate & 32 hr. Certificate)  
Entrepreneurship (Certificate)  
Firefighter II (Certificate)  
Fitness Instructor Technology (Certificate)  
Manufacturing Management (AAS)  
Manufacturing Supervision (Certificate)  
Real Estate (AAS)  
Real Estate Appraisal (Certificate)  
Any GS or Adult Education Course

#### Oakton Community College (847) 635-1600

Des Plaines, Illinois  
Architecture Courses (not offered at CLC)  
Cert. Novell Administration (Certificate)  
Cert. Novell Engineering (Certificate)  
Desktop Design (AAS)  
Financial Services (AAS & Certificate)  
Graphic Design (AAS)  
Medical Laboratory Technology  
\* Physical Therapist Assistant (AAS)  
Real Estate Appraisal (Certificate)  
Real Estate (AAS)

#### Lincoln Land Community College (217) 786-2200

Springfield, Illinois  
Air Frame and Power Plant Mechanics (AAS)

#### Triton College (708) 456-0300

River Grove, Illinois  
Respiratory Care (AAS)

- \* Students must show acceptance into the program *before* the joint agreement will be issued.  
\*\* 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.

## Programs of Instruction and Graduation Requirements

### Residents of other communities

The following programs (certificates and associate degree) 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.

#### *Elgin Community College residents:*

- Architectural Technology (AAS and Certificate)
- Building Construction Technology (AAS and Certificate)
- Civil Technology (AAS and Certificate)
- Computed Tomography (Certificate)
- \* Health Information Technology (AAS)
- Library Technical Assistant (AAS and Certificate)
- Magnetic Resonance Imaging (Certificate)
- \* Medical Imaging (AAS)

#### *Gateway Technical College residents:*

- Automotive Collision Repair (Certificate)
- Chemical Technology (AAS and Certificate)
- Civil Technology-Environmental Option (AAS)
- Computed Tomography (Certificate)
- Electrician Apprenticeship (AAS)
- Human Services ASAAD (AAS)
- Machine Tool Trades (AAS)
- Magnetic Resonance Imaging (Certificate)
- \* Medical Billing Specialist (Certificate)
- \* Medical Imaging (AAS)
- Tool & Moldmaker (Certificate)

#### *McHenry County College residents:*

- Architectural Technology (AAS and Certificate)
- Automotive Collision Repair (Certificate)
- Building Construction Technology (AAS and Certificate)
- Chemical Technology (AAS and Certificate)
- Civil Technology (AAS and Certificate)
- CNC Programming (AAS and Certificate)
- Computed Tomography (Certificate)
- \* Dental Hygiene (AAS)
- EKG Interpretation (Course VALH 7)
- Electrical/Electronic Maintenance (Certificate)
- Electrician Apprenticeship (AAS)
- Emergency Medical Technician-Paramedics (AAS)
- Fire Science (AAS)
- Food Service Management (AAS)
- 12 Lead ECG Interpretation (Course VALH 9)
- \* Health Information Technology (AAS)
- Human Services and ASAAD Option (AAS and Certificate)
- Industrial Maintenance and Repair (AAS and Certificate)
- Library Technical Assistant (AAS and Certificate)
- Machine Tool Trades (AAS and Certificate)
- \* Magnetic Resonance Imaging (Certificate)
- \* Medical Billing Specialist (Certificate)
- \* Medical Imaging (AAS)
- \* Nursing (AAS)

- \* Phlebotomy Technician (Certificate)
- Refrigeration/Air Conditioning (AAS and Certificates)
- Surgical Technology (Certificate)
- Technical Communication (AAS and Certificate)
- Welding (Certificates)

#### *Oakton Community College residents:*

- Architecture courses (Not offered at Oakton)
- Automotive Collision Repair (Certificate)
- Computed Tomography (Certificate)
- Food Service/Culinary Arts (Certificate)
- Horticulture (AAS and Certificates)
- Human Services ASAAD Option (AAS)
- Library Technical Assistant (AAS and Certificate)
- Magnetic Resonance Imaging (Certificate)
- Surgical Technology (Certificate)
- Welding (Certificates)

#### *William Rainey Harper College residents:*

- Automotive Collision Repair (Certificate)
- Automotive Technology (AAS and Certificates)
- Building Construction Technology (AAS and Certificate)
- Chemical Technology (AAS and Certificates)
- Civil Technology (AAS and Certificate)
- Computed Tomography (Certificate)
- \* Health Information Technology (AAS)
- Human Services (AAS and Certificates)
- Industrial Maintenance and Repair (AAS and Certificate)
- Library Technical Assistant (AAS and Certificate)
- Magnetic Resonance Imaging (Certificate)
- \* Medical Imaging (AAS)
- Rehabilitation Nursing (Course VALH 8)
- Technical Communication (AAS and Certificate)
- Tool & Moldmaker (Certificate)
- Welding (Certificates) WLD 170 not included

#### *Triton College residents:*

- Phlebotomy Technician (Certificate)

\* Students must show acceptance into the program *before* the joint agreement will be issued.

## Graduation Requirements for Associate in Arts, Associate in Science, Associate in Engineering Science, and Associate in Fine Arts Degrees

### Petition for Graduation

All students who intend to receive a degree or certificate must complete a Petition for Graduation. Students must meet the general requirements for associate degrees and must successfully complete the specific General Education Requirements as defined by CLC's catalog at the time they are first enrolled, or at the time they petition for graduation.

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 covering the semester in which they re-enroll.

### General Requirements for Associate Degrees

1. The satisfactory completion of the maximum number of credit hours for the each respective degree (A.A., A.S., A.E.S. and A.F.A.).
2. Completion of at least 15 of the last 30 semester hours of instruction while in attendance at the College of Lake County. (Does not include 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 completing 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. The maintenance of a C (2.00) average for all work at CLC used to compute the grade point average.
4. Compliance with the requirement regarding the Constitution Examination (Senate Bill 195 of the 68th General Assembly of the State of Illinois) by any one of the following means:
  - a. Passing the College of Lake County proficiency examination covering the Constitution of the United States and the State of Illinois and the proper use and display of the American flag.
  - b. Passing Political Science 121 or History 221 at CLC.
  - c. Presenting an official Illinois high school transcript which clearly gives evidence that this requirement was satisfied for high school graduation.
  - d. Completing the requirement at another institution of higher education in the State of Illinois.
5. The satisfactory completion of the General Education Requirements for the appropriate degree.

### Special Notations for Associate Degree Requirements

- A. General Education Requirements must be fulfilled with middle digit 2, 4, or 6 courses, e.g. ENG 121. 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. However, students should select these courses only after they have verified their transferability with their advisor or the transfer institution.
- B. One course in International/Multicultural Education must be taken from the following list.

<u>Humanities &amp; Fine Arts</u>		<u>Social &amp; Behavioral Science</u>	
ARA (Any course)	HUM 121	ANT 121	HST 124
ART 240	HUM 122	ANT 221	HST 126
ART 241	HUM 124	ANT 222	HST 127
ART 242	HUM 128	ANT 228	HST 240
CHI (Any course)	HUM 221	ECO 225	HST 241
ENG 128	HUM 223	GEG 122	PSC 221
ENG 129	HUM 226	GEG 123	PSC 222
ENG 228	ITL (Any course)	GEG 223	SSI 124
ENG 244	JPN (Any course)	HST 121	
ENG 246	PHI 123	HST 122	
ENG 247	PHI 125	HST 123	<u>Business</u>
ENG 263	PHI 126		BUS 270
ENG 264	PHI 129		
FRN (Any course)	PHI 221		
GER (Any course)	RUS (Any course)		
	SPA (Any course)		

The course taken to fulfill the International/Multicultural Education requirement will count toward the Humanities and Fine Arts, or Social and Behavioral Science general education requirement.

- C. Except for the International/Multicultural Education requirement, no course may be used to satisfy more than one general education requirement.
- D. No more than four credit hours earned in PDS 120 or PDS 121 may count as elective credit.
- E. The following courses cannot be used to satisfy degree requirements and do not count in the grade point average.
  - a. Courses with a middle digit of 0, (e.g. ENG 108, ENG 109, and MTH 101).
  - b. Adult Education courses with a department prefix of ABE, ADE, ESL, GED, or VST.
  - c. General Studies courses.
- F. Under special circumstances, exceptions will be made on an individual basis. Course substitution forms should be directed to the Assistant Vice President of Educational Affairs.

## **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.
- **Technology:** use technology appropriately and effectively.

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.

## Associate in Arts Degree

### Plan 13AB

Students may obtain an Associate in Arts degree from the College of Lake County by successfully completing the 60 credits outlined below and by meeting the graduation requirements listed on page 49.

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 covering the semester in which they re-enroll.

The College of Lake County is a participant in the Illinois Articulation Initiative (IAI). This is a program to ease the transfer for students from 2-year or 4-year colleges/universities to 4-year college/universities in Illinois. The 60 credits needed for the Associate in Arts degree contain the IAI core. For more information see pages 45-46. This initiative is limited to students who are first-time college students since May 1998. *The IAI course numbers are in bold (e.g. C1900); you must not select two courses with the same IAI course number.*

It is important to meet with an advisor to update your educational plan. Please check the courses you complete each term to assist you in this process.

Courses with the same IAI numbers are identified with an asterisk next to the course number. Only one course with the same IAI number may be used for the degree core.

### Communication - 9 credit hours

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

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

### Mathematics - 3 credit hours

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

### Humanities and Fine Arts - 9 credit hours

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

#### Humanities

- ARA 222\* Intermediate Modern Standard Arabic II (4) **H1 900**
- CHI 222\* Intermediate Chinese II (4) **H1 900**
- ENG 129\* Women In Literature (3) **H3 911D**
- ENG 223 Survey of Major American Writers (3) **H3 914**
- ENG 225 Major Trends and Authors of English Literature (3) **H3 912**
- ENG 226 Modern English Literature (3) **H3 913**
- ENG 227 Introduction to Shakespeare (3) **H3 905**
- ENG 228 World Literature (3) **H3 906**
- ENG 229 20th Century American Literature (3) **H3 915**
- ENG 241 Introduction to Poetry (3) **H3 903**
- ENG 243 Introduction to Fiction (3) **H3 901**
- ENG 244 Mythology and Fairy Tales (3) **H9 901**
- ENG 246 Latin American Writers (3) **H3 908N**
- ENG 247\* International Women Writers (3) **H3 911D**
- FRN 222\* Intermediate French II (4) **H1 900**
- FRN 223\* French Civilization I (3) **H1 900**
- FRN 224\* French Civilization II (3) **H1 900**
- GER 222\* Intermediate German II (4) **H1 900**
- GER 223\* German Civilization I (3) **H1 900**
- GER 224\* German Civilization II (3) **H1 900**
- HUM 121 Introduction to Humanities I (3) **HF 902**
- HUM 122 Introduction to Humanities II (3) **HF 903**
- HUM 127\* Critical Thinking (3) **H4 906**
- HUM 128 Introduction to Mid-Eastern Civilizations (3) **H2 903 N**
- HUM 221 American Decades (3) **HF 906 D**
- HUM 226 Women and the Arts (3) **HF 907D**
- ITL 222\* Intermediate Italian II (4) **H1 900**
- ITL 223\* Italian Civilization I (4) **H1 900**

*Humanities continued on next page.*

## Programs of Instruction and Graduation Requirements

### Associate in Arts Degree continued

- ITL 224\* Italian Civilization II (4) **H1 900**
- JPN 222\* Intermediate Japanese II (4) **H1 900**
- PHI 121 Introduction to Philosophy (3) **H4 900**
- PHI 122\* Logic (3) **H4 906**
- PHI 123 Philosophy of Religion (3) **H4 905**
- PHI 125 Introduction to Ethics (3) **H4 904**
- PHI 126 World Religions (3) **H4 904N**
- PHI 221 Asian Philosophy (3) **H4 903N**
- RUS 222\* Intermediate Russian II (4) **H1 900**
- SPA 222\* Intermediate Spanish II (4) **H1 900**
- SPA 223\* Spanish Civilization I (3) **H1 900**
- SPA 224\* Spanish Civilization II (3) **H1 900**

\* The following Humanities courses have duplicate IAI numbers. Only one course with the same IAI number may be applied to the degree core. **H1 900** – ARA 222, CHI 222, FRN 222, FRN 223, FRN 224, GER 222, GER 223, GER 224, ITL 222, ITL 223, ITL 224, JPN 222, RUS 222, SPA 222, SPA 223, SPA 224; **H3 911 D** – ENG 129, ENG 247; **H4 906** – HUM 127, PHI 122

### Fine Arts

- ART 121\* Introduction to Art (3) **F2 900**
- ART 240 History of Art I (3) **F2 901**
- ART 241\* History of Art II (3) **F2 902**
- ART 242\* History of Art III (3) **F2 902**
- ART 260 History of Photography (3) **F2 904**
- HUM 121 Introduction to Humanities I (3) **HF 902**
- HUM 122 Introduction to Humanities II (3) **HF 903**
- HUM 123\* Introduction to Film (3) **F2 905**
- HUM 125\* Introduction to Fine Arts I (3) **F2 900**
- HUM 126 Introduction to the Performing Arts (3) **F9 900**
- HUM 221 American Decades (3) **HF 906 D**
- HUM 222\* Film and Society (3) **F2 905**
- HUM 223\* Introduction to International Film (3) **F2 905**
- HUM 225 The Art of Dance (3) **F1 906**
- HUM 226 Women and the Arts (3) **HF 907 D**
- MUS 124 Introduction to Music (3) **F1 900**
- MUS 224 Music Literature (3) **F1 902**
- THE 121 Introduction to Theater I (3) **F1 907**

\* The following Fine Arts courses have duplicate IAI numbers. Only one course with the same IAI number may be applied to the degree core. **F2 900** – ART 121, HUM 125; **F2 902** – ART 241, ART 242; **F2 905** – HUM 123, HUM 222, HUM 223

### Physical and Life Sciences -7 credit hours

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

### Physical Science

- AST 121 (LAB) Introduction to Astronomy (4) **P1 906L**
- CHM 120 (LAB) Chemical Concepts (4) **P1 902L**
- CHM 121 (LAB) General Chemistry I (5) **P1 902L**
- GEG 121 Physical Geography (3) **P1 909**
- GEO 120 (LAB) Earth Science (4) **P1 905L**
- GEO 121 (LAB) Physical Geology (4) **P1 907L**
- GEO 124 Oceanography (3) **P1 905**
- GEO 224 Environmental Geology (3) **P1 908**
- PHY 120 (LAB) Practical Aspects of Physics (4) **P1 901L**
- PHY 121 (LAB) General Physics I (5) **P1 900L**
- PHY 123 (LAB) Physics for Science and Engineers (5) **P2 900L**

### Life Science

- BIO 120 (LAB) Environmental Biology (4) **L1 905L**
- BIO 121 (LAB) General Biology I (4) **L1 900L**
- BIO 127 Introduction to Evolution (3) **L1 907**
- BIO 140 Environmental Issues (3) **L1 905**

### Social and Behavioral Sciences - 9 credit hours

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

- ANT 121 Introduction to Anthropology (3) **S1 900N**
- ANT 221 Cultural Anthropology (3) **S1 901N**
- ANT 222 Introduction to Physical Anthropology (3) **S1 902**
- ANT 224 Introduction to Archaeology (3) **S1 903**
- ANT 228 Cross-Cultural Relationships (3) **S1 904D**
- ECO 221 Principles of Macroeconomics (3) **S3 901**
- ECO 222 Principles of Microeconomics (3) **S3 902**
- GEG 122\* Cultural Geography (3) **S4 900N**
- GEG 123\* World Regional Geography (3) **S4 900N**
- HST 121 History of Western Civilization I (3) **S2 902**
- HST 122 History of Western Civilization II (3) **S2 903**
- HST 126 History of Contemporary Non-Western Civilization (3) **S2 905N**
- HST 127 History of Chinese Culture and Society (3) **S2 914N**
- HST 221 United States History to 1876 (3) **S2 900**
- HST 222 United States History 1876 to Present (3) **S2 901**
- PSC 121 American National Politics (3) **S5 900**
- PSC 122 State and Local Politics (3) **S5 902**
- PSC 221 Comparative Political Systems (3) **S5 905**
- PSC 222 International Relationships (3) **S5 904N**
- PSY 121 Introduction to Psychology (3) **S6 900**

*Social and behavioral sciences continued on next page.*

**Associate in Arts Degree continued**

**Notes:**

- PSY 222 Child Growth and Development (3) **S6 903**
- PSY 225 Social Psychology (3) **S8 900**
- PSY 226 Adolescent Psychology (3) **S6 904**
- SOC 121 Introduction to Sociology (3) **S7 900**
- SOC 222 Social Problems (3) **S7 901**
- SOC 224 Sociology of the Family (3) **S7 902**
- SOC 225 Class, Race and Gender (3) **S7 904D**

\* The following Social and Behavioral Science courses have duplicated IAI numbers. Only one course with the same IAI number may be applied to the degree core.  
**S4 900N** – GEG 122, GEG 123

**Additional College AA Degree Requirements**

- Include one course in International/Multicultural Education which must be taken from the list on page 66.

**General Elective hours - 23 credit hours**

- Choose elective courses with an *even middle digit* that relate to your intended major. Students should choose electives only after consulting with an advisor.
- **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. However, students should select these courses only after they have verified their transferability with their advisor or the transfer institution.

**Total Degree Requirements: 60 credit hours**

*Please review lists of recommended courses for individual programs of study as listed on pages 69-91 in this catalog.*

**Other Graduation Requirements:**

- Constitution Requirements (recommended methods: Illinois high school transcript showing a graduation date of 1953 or later, proficiency exam, or successful completion of PSC 121 or HST 221 at CLC)
- Cumulative CLC GPA of 2.00 or higher
- Minimum of 15 of last 30 hours at CLC
- Petition to Graduate (available in Admissions and Records)

## Associate in Science Degree

### Plan 11AB

Students can obtain an Associate in Science degree from the College of Lake County by successfully completing the 60 credits outlined below and by meeting the graduation requirements listed on page 49.

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 covering the semester in which they re-enroll.

The College of Lake County is a participant in the Illinois Articulation Initiative (IAI). This is a program to ease the transfer for students from 2-year or 4-year colleges/universities to 4-year college/universities in Illinois. The 60 credits needed for the Associate in Science degree contain the IAI core. For more information see pages 45-46. This initiative is limited to students who are first-time college students since May 1998. *The IAI course numbers are in bold (e.g. C1900); you must not select two courses with the same IAI course number.*

It is important to meet with an advisor to update your educational plan. Please check the courses you complete each term to assist you in this process.

### Communication - 9 credit hours

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

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

### Mathematics - 8 credit hours

3 credits **MUST** be selected from the courses with an IAI number (shown in bold) in order to meet CLC graduation requirements. This will also meet the IAI general education core. Duplication of an IAI number is acceptable in Mathematics courses.

- MTH 122 College Algebra (4)
- MTH 123 Trigonometry (3)
- MTH 127 Finite Mathematics I (3) **M1 906**
- MTH 141 Quantitative Literacy (3) **M1 901**
- MTH 144 Precalculus (5)
- MTH 145 Calculus and Analytic Geometry I (5) **M1 900**
- MTH 146 Calculus and Analytic Geometry II (4) **M1 900**
- MTH 221 Math for Elementary Teaching II (3) **M1 903**
- MTH 222 Elementary Statistics (4) **M1 902**
- MTH 224 Calculus for Business and Social Science (4) **M1 900**
- MTH 227 Ordinary Differential Equations (3)
- MTH 244 Discrete Mathematics (3) **M1 905**
- MTH 246 Calculus and Analytic Geometry III (4) **M1 900**

### Humanities and Fine Arts - 9 credit hours

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

#### Humanities

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

*Humanities continued on next page.*

## Programs of Instruction and Graduation Requirements

### Associate in Science Degree continued

- HUM 121 Introduction to Humanities I (3) **HF 902**
- HUM 122 Introduction to Humanities II (3) **HF 903**
- HUM 127\* Critical Thinking (3) **H4 906**
- HUM 128 Introduction to Mid-Eastern Civilizations (3) **H2 903 N**
- HUM 221 American Decades (3) **HF 906 D**
- HUM 226 Women and the Arts (3) **HF 907D**
- ITL 222\* Intermediate Italian II (4) **H1 900**
- ITL 223\* Italian Civilization I (4) **H1 900**
- ITL 224\* Italian Civilization II (4) **H1 900**
- JPN 222\* Intermediate Japanese II (4) **H1 900**
- PHI 121 Introduction to Philosophy (3) **H4 900**
- PHI 122\* Logic (3) **H4 906**
- PHI 123 Philosophy of Religion (3) **H4 905**
- PHI 125 Introduction to Ethics (3) **H4 904**
- PHI 126 World Religion (3) **H5 904N**
- PHI 221 Asian Philosophy (3) **H4 903N**
- RUS 222\* Intermediate Russian II (4) **H1 900**
- SPA 222\* Intermediate Spanish II (4) **H1 900**
- SPA 223\* Spanish Civilization I (3) **H1 900**
- SPA 224\* Spanish Civilization II (3) **H1 900**

\* The following Humanities courses have duplicate IAI numbers. Only one course with the same IAI number may be applied to the degree core. **H1 900** – ARA 222, CHI 222, FRN 222, FRN 223, FRN 224, GER 222, GER 223, GER 224, ITL 222, ITL 223, ITL 224, JPN 222, RUS 222, SPA 222, SPA 223, SPA 224; **H3 911 D** – ENG 129, ENG 247; **H4 906** – HUM 127, PHI 122

### Fine Arts

- ART 121\* Introduction to Art (3) **F2 900**
- ART 240 History of Art I (3) **F2 901**
- ART 241\* History of Art II (3) **F2 902**
- ART 242\* History of Art III (3) **F2 902**
- ART 260 History of Photography (3) **F2 904**
- HUM 121 Introduction to Humanities I (3) **HF 902**
- HUM 122 Introduction to Humanities II (3) **HF 903**
- HUM 123\* Introduction to Film (3) **F2 905**
- HUM 125\* Introduction to Fine Arts I (3) **F2 900**
- HUM 126 Introduction to the Performing Arts (3) **F9 900**
- HUM 221 American Decades (3) **HF 906 D**
- HUM 222\* Film and Society (3) **F2 905**
- HUM 223 Introduction to International Film (3) **F2 905**
- HUM 225 The Art of Dance (3) **F1 906**
- HUM 226 Women and the Arts (3) **HF 907 D**
- MUS 124 Introduction to Music (3) **F1 900**
- MUS 224 Music Literature (3) **F1 902**
- THE 121 Introduction to Theater I (3) **F1 907**

\* The following Fine Arts courses have duplicate IAI numbers. Only one course with the same IAI number may be applied to the degree core. **F2 900** – ART 121, HUM 125; **F2 902** – ART 241, ART 242; **F2 905** – HUM 123, 222, HUM 223

### Physical and Life Sciences - 8 credit hours

8 credit hrs. One course must be selected from Physical Science and one course from Life Science. Both courses must be Laboratory courses (LAB)

#### Physical Science

- AST 121 (LAB) Introduction to Astronomy (4) **P1 906L**
- CHM 120 (LAB) Chemical Concepts (4) **P1 902L**
- CHM 121 (LAB) General Chemistry I (5) **P1 902L**
- GEG 121 Physical Geography (3) **P1 909**
- GEO 120 (LAB) Earth Science (4) **P1 905 L**
- GEO 121 (LAB) Physical Geology (4) **P1 907L**
- GEO 124 Oceanography (3) **P1 905**
- GEO 224 Environmental Geology (3) **P1 908**
- PHY 120 (LAB) Practical Aspects of Physics (4) **P1 901L**
- PHY 121 (LAB) General Physics I (5) **P1 900L**
- PHY 123 (LAB) Physics for Science and Engineering I (5) **P2 900L**

#### Life Science

- BIO 120 (LAB) Environmental Biology (4) **L1 905L**
- BIO 121 (LAB) General Biology I (4) **L1 900L**
- BIO 127 Introduction to Evolution (3) **L1 907**
- BIO 140 Environmental Issues (3) **L1 905**

### Social and Behavioral Sciences - 9 credit hours

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

- ANT 121 Introduction to Anthropology (3) **S1 900N**
- ANT 221 Cultural Anthropology (3) **S1 901N**
- ANT 222 Introduction to Physical Anthropology (3) **S1 902**
- ANT 224 Introduction to Archaeology (3) **S1 903**
- ANT 228 Cross-Cultural Relationships (3) **S1 904D**
- ECO 221 Principles of Macroeconomics (3) **S3 901**
- ECO 222 Principles of Microeconomics (3) **S3 902**
- GEG 122\* Cultural Geography (3) **S4 900N**
- GEG 123\* World Regional Geography (3) **S4 900N**
- HST 121 History of Western Civilization I (3) **S2 902**
- HST 122 History of Western Civilization II (3) **S2 903**
- HST 126 History of Contemporary Non-Western Civilization (3) **S2 905N**
- HST 127 History of Chinese Culture and Society (3) **S2 914N**
- HST 221 United States History to 1876 (3) **S2 900**
- HST 222 United States History 1876 to Present (3) **S2 901**
- PSC 121 American National Politics (3) **S5 900**
- PSC 122 State and Local Politics (3) **S5 902**

*Social and behavioral sciences continued on next page.*

### Associate in Science Degree continued

### Notes:

- PSC 221 Comparative Political Systems (3) **S5 905**
- PSC 222 International Relationships (3) **S5 904N**
- PSY 121 Introduction to Psychology (3) **S6 900**
- PSY 222 Child Growth and Development (3) **S6 903**
- PSY 225 Social Psychology (3) **S8 900**
- PSY 226 Adolescent Psychology (3) **S6 904**
- SOC 121 Introduction to Sociology (3) **S7 900**
- SOC 222 Social Problems (3) **S7 901**
- SOC 224 Sociology of the Family (3) **S7 902**
- SOC 225 Class, Race and Gender (3) **S7 904D**

\* The following Social and Behavioral Science courses have duplicated IAI numbers. Only one course with the same IAI number may be applied to the degree core: **S4 900N** – GEG 122, GEG 123

### Additional College AS Degree Requirements

- Include one course in International/Multicultural Education which must be taken from the list on page 66.

### General Elective hours - 17 credit hours

- Choose elective courses with an *even middle digit* that relate to your intended major. Students should choose electives only after consulting with an advisor.
- **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. However, students should select these courses only after they have verified their transferability with their advisor or the transfer institution.

### Total Degree Requirements: 60 credit hours

*Please review lists of recommended courses for individual programs of study as listed on pages 69-91 in this catalog.*

### Other Graduation Requirements:

- Constitution Requirements (recommended methods: Illinois high school transcript showing a graduation date of 1953 or later, proficiency exam, or successful completion of PSC 121 or HST 221 at CLC)
- Cumulative CLC GPA of 2.00 or higher
- Minimum of 15 of last 30 hours at CLC
- Petition to Graduate (available in Admissions and Records)

## Associate in Engineering Science Degree Plan 12AB

Students may obtain an Associate in Engineering Science degree from the College of Lake County by successfully completing the 62-65 credits outlined below and by meeting the graduation requirements listed on page 49.

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 covering the semester in which they re-enroll.

The College of Lake County is a participant in the Illinois Articulation Initiative (IAI). This is a program to ease the transfer for students from 2-year or 4-year colleges/universities to 4-year college/universities in Illinois. The credits needed for the Associate in Engineering Science contain a portion of the IAI core. Please see pages 45-46 for more information. This initiative is limited to students who are first-time college students since May 1998. **The IAI course numbers are in bold (e.g. C1900).**

It is important to meet with an advisor to update your educational plan. Please check the courses you complete each term to assist you in this process.

For more information on this course of study students may contact the following faculty member.

Name	Office	Phone Number	E-mail Address
Rob Twardock	A220a	(847) 543-2903	<a href="mailto:rtwardock@clcollinois.edu">rtwardock@clcollinois.edu</a>

### Communication - 6 credit hours

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

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

### Mathematics - 16 credit hours

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

### Humanities and Fine Arts - 6 hours

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

#### Humanities - 3 hours

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

*Associate in Engineering Science Degree continues on next page.*

## Programs of Instruction and Graduation Requirements

### Associate in Engineering Science Degree continued

#### Fine Arts - 3 hours

- ART 121 Introduction to Art (3) **F2 900**
- ART 240 History of Art I (3) **F2 901**
- ART 241\* History of Art II (3) **F2 902**
- ART 242\* History of Art III (3) **F2 902**
- ART 260 History of Photography (3) **F2 904**
- HUM 121 Introduction to Humanities I (3) **HF 902**
- HUM 122 Introduction to Humanities II (3) **HF 903**
- HUM 123 Introduction to Film (3) **F2 905**
- HUM 125\* Introduction to Fine Arts I (3) **F2 900**
- HUM 126 Introduction to the Performing Arts (3) **F9 900**
- HUM 221 American Decades (3) **HF 906 D**
- HUM 223 Introduction to International Film (3) **F2 905**
- HUM 225\* The Art of Dance (3) **F1 906**
- HUM 226 Women and the Arts (3) **HF 907 D**
- MUS 124\* Introduction to Music (3) **F1 900**
- MUS 224\* Music Literature (3) **F1 902**
- MUS 140\* 20th Century Music (3) **F1 902**
- THE 121 Introduction to Theater I (3) **F1 907**

#### Science - 15 credit hours

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

#### Social and Behavioral Sciences - 6 credit hours

- Select from two different disciplines i.e. have different prefixes

- ANT 121\* Introduction to Anthropology (3) **S1 900N**
- ANT 221\* Cultural Anthropology (3) **S1 901N**
- ANT 222 Introduction to Physical Anthropology (3) **S1 902**
- ANT 224 Introduction to Archaeology (3) **S1 903**
- ANT 228 Cross-Cultural Relationships (3) **S1 904D**
- ECO 221\* Principles of Macroeconomics (3) **S3 901**
- ECO 222\* Principles of Microeconomics (3) **S3 902**
- GEG 122 Cultural Geography (3) **S4 900 N**
- GEG 123 World Regional Geography (3) **S4 900N**
- HST 121\* History of Western Civilization I (3) **S2 902**
- HST 122\* History of Western Civilization II (3) **S2 903**
- HST 126 History of Contemporary Non-Western Civilization (3) **S2 905N**
- HST 127\* History of Chinese Culture and Society (3) **S2 914N**
- HST 221\* United States History to 1876 (3) **S2 900**
- HST 222\* United States History 1876 to Present (3) **S2 901**
- PSC 121\* American National Politics (3) **S5 900**
- PSC 122 State and Local Politics (3) **S5 902**
- PSC 221\* Comparative Political Systems (3) **S5 905**
- PSC 222 International Relationships (3) **S5 904N**
- PSY 121\* Introduction to Psychology (3) **S6 900**
- PSY 222\* Child Growth and Development (3) **S6 903**

- PSY 225\* Social Psychology (3) **S8 900**
- PSY 226 Adolescent Psychology (3) **S6 904**
- SOC 121\* Introduction to Sociology (3) **S7 900**
- SOC 222 Social Problems (3) **S7 901**
- SOC 224\* Sociology of the Family (3) **S7 902**
- SOC 225 Class, Race and Gender (3) **S7 904D**

#### Computer Science - 3 credit hours

- MCS 140 Computer Programming I (3) *or*
- MCS 142 Computer Programming II (3)

#### Engineering - 7 credit hours

- EGR 121 Engineering Graphics (3)
- EGR 221 Statics and Dynamics (5)
- EGR 222 Engineering Mechanics of Materials (3)
- EGR 260 Introduction to Circuit Analysis (4)

#### *Notes:*

- \* Students planning to transfer to UIC or UIUC are recommended to select from these courses.

#### Additional College AES Degree

##### Requirements - 0-3 credit hours

Include one course in International/Multicultural Education which must be taken from the list on page 66. The course may overlap with a selection from the Humanities/Fine Arts or from the Social Behavioral Sciences area. If a course is not selected to meet both areas, one course from the list on page 66 must be selected.

##### Electives - 3-4 credit hours

Electives should be selected to meet the requirements for the transfer institution and the specific engineering major desired. Select from: any EGR course, MCS 140 or 142, MTH 225, MTH 244, PHY 221, CHM 123, or CHM 222.

##### Total Degree Requirements: 62-65 credit hours

##### Other Graduation Requirements:

- Constitution Requirements (recommended methods: Illinois high school transcript showing a graduation date of 1953 or later, proficiency exam, or successful completion of PSC 121 or HST 221 at CLC)
- Cumulative CLC GPA of 2.00 or higher
- Minimum of 15 of last 30 hours at CLC
- Petition to Graduate (available in Admissions and Records)

## Associate in Fine Arts Degree in Art

### Plan 14AA

Students may obtain an Associate in Fine Arts degree in Art by successfully completing 61-63 credits outlined below and by meeting the graduation requirements listed on page 49.

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 covering the semester in which they re-enroll.

This new degree meets the needs of students who plan to earn the professional Bachelor of Fine Arts degree (B.F.A.). Specifically the Associate in Fine Arts (A.F.A.) in art allows students to complete a greater number of their studio art requirements at the College of Lake County and thus facilitates the transfer process for students planning to enroll in a B.F.A. program at an Illinois college or university. Since completion of the A.F.A. degree does not fulfill the requirements of the Illinois General Education Core Curriculum, students will need to complete the general education requirements of the institution to which they transfer. Additionally, required art courses may not be able to be used to meet general education requirements at CLC and/or at some Illinois institutions.

It is important to meet with an advisor to update your educational plan. Please check the courses you complete each term to assist you in this process.

### Communication - 9 credit hours

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

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

### Mathematics - 3-4 credit hours

- MTH 127 Finite Mathematics I (3) **M1 906**
- MTH 141 Quantitative Literacy (3) **M1 901**
- MTH 145 Calculus and Analytic Geometry I (5) **M1 900**
- MTH 146 Calculus and Analytic Geometry II (4) **M1 900**
- MTH 221 Mathematics for Elementary Teaching II (3) **M1 903**

- MTH 222 Elementary Statistics (4) **M1 902**
- MTH 224 Calculus for Business and Social Science (4) **M1 900**
- MTH 244 Discrete Mathematics (3) **M1 905**
- MTH 246 Calculus and Analytic Geometry III (4) **M1 900**

### Humanities and Fine Arts - 6 credit hours

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

#### Humanities

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

*Associate in Fine Arts Degree in Art  
continues on next page.*

## Programs of Instruction and Graduation Requirements

### Associate in Fine Arts Degree in Art continued

#### Fine Arts

- HUM 121 Introduction to Humanities I (3) **HF 902**
- HUM 122 Introduction to Humanities II (3) **HF 903**
- HUM 123 Introduction to Film (3) **F2 905**
- HUM 125 Introduction to Fine Arts I (3) **F2 900**
- HUM 126 Introduction to the Performing Arts (3) **F9 900**
- HUM 221 American Decades (3) **HF 906 D**
- HUM 222 Film and Society (3) **F2 905**
- HUM 223 Introduction to International Film (3) **F2 905**
- HUM 225 The Art of Dance (3) **F1 906**
- HUM 226 Women and the Arts (3) **HF 907 D**
- MUS 124 Introduction to Music (3) **F1 900**
- MUS 140 20th Century Music (3) **F1 902**
- MUS 224 Music Literature (3) **F1 902**
- THE 121 Introduction to Theater I (3) **F1 907**

#### Physical and Life Sciences -7-8 credit hours

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

#### Physical Science

- AST 121 (LAB) Introduction to Astronomy (4) **P1 906L**
- CHM 120 (LAB) Chemical Concepts (4) **P1 902L**
- CHM 121 (LAB) General Chemistry I (5) **P1 902L**
- GEG 121 Physical Geography (3) **P1 909**
- GEO 120 (LAB) Earth Science (4) **P1 905L**
- GEO 121 (LAB) Physical Geology (4) **P1 907L**
- GEO 124 Oceanography (3) **P1 905**
- GEO 224 Environmental Geology (3) **P1 908**
- PHY 120 (LAB) Practical Aspects of Physics (4) **P1 901L**
- PHY 121 (LAB) General Physics I (5) **P1 900L**
- PHY 123 (LAB) Physics for Science and Engineers (5) **P2 900L**

#### Life Science

- BIO 120 (LAB) Environmental Biology (4) **L1 905L**
- BIO 121 (LAB) General Biology I (4) **L1 900L**
- BIO 127 Introduction to Evolution (3) **L1 907**
- BIO 140 Environmental Issues (3) **L1 905**

#### Social and Behavioral Sciences - 6 credit hours

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

- ANT 121 Introduction to Anthropology (3) **S1 900N**
- ANT 221 Cultural Anthropology (3) **S1 901N**
- ANT 222 Introduction to Physical Anthropology (3) **S1 902**
- ANT 224 Introduction to Archaeology (3) **S1 903**
- ANT 228 Cross-Cultural Relationships (3) **S1 904D**
- ECO 221 Principles of Macroeconomics (3) **S3 901**
- ECO 222 Principles of Microeconomics (3) **S3 902**
- GEG 122 Cultural Geography (3) **S4 900 N**
- GEG 123 World Regional Geography (3) **S4 900N**
- HST 121 History of Western Civilization I (3) **S2 902**
- HST 122 History of Western Civilization II (3) **S2 903**
- HST 126 History of Contemporary Non-Western Civilization (3) **S2 914 N**
- HST 127 History of Chinese Culture and Society (3) **S2 909N**
- HST 221 United States History to 1876 (3) **S2 900**
- HST 222 United States History 1876 to Present (3) **S2 901**
- PSC 121 American National Politics (3) **S5 900**
- PSC 122 State and Local Politics (3) **S5 902**
- PSC 221 Comparative Political Systems (3) **S5 905**
- PSC 222 International Relationships (3) **S5 904N**
- PSY 121 Introduction to Psychology (3) **S6 900**
- PSY 222 Child Growth and Development (3) **S6 903**
- PSY 225 Social Psychology (3) **S8 900**
- PSY 226 Adolescent Psychology (3) **S6 904**
- SOC 121 Introduction to Sociology (3) **S7 900**
- SOC 222 Social Problems (3) **S7 901**
- SOC 224 Sociology of the Family (3) **S7 902**
- SOC 225 Class, Race and Gender (3) **S7 904D**

#### Additional College AFA Degree Requirements

Includes one course in International/Multicultural Education taken from the list on page 66.

#### Art - 21 credit hours

- ART 122 Basic Color and Design (3)
- ART 124 Basic Drawing (3)
- ART 127 Intermediate Drawing (3)
- ART 221 Advanced Design (3)
- ART 225 Figure Drawing (3)
- ART 240 History of Art I (3) **F2 901**
- ART 241 History of Art II (3) **F2 902**

Associate in Fine Arts Degree in Art  
continues on next page.

### *Associate in Fine Arts Degree in Art continued*

#### **Elective Studio - 9-11 credit hours**

- ART 222 Computer Art (3)
- ART 223 Introduction to Sculpture (3)
- ART 224 Beginning Painting (3)
- ART 226 Introduction to Ceramics (3)
- ART 243 Introduction to Printmaking I (3)

#### **Total Degree Requirements: 61-63 credit hours**

*Please review lists of recommended courses for individual programs of study as listed on pages 69-91 in this catalog.*

#### **Other Graduation Requirements:**

- Constitution Requirements (recommended methods:  
Illinois high school transcript showing a graduation date of 1953 or later, proficiency exam, or successful completion of PSC 121 or HST 221 at CLC)
- Cumulative CLC GPA of 2.00 or higher
- Minimum of 15 of last 30 hours at CLC
- Petition to Graduate (available in Admissions and Records)

### **Notes:**

## **Associate in Fine Arts Degree in Music Education**

### **Plan 15AA**

Students can obtain an Associate in Fine Arts degree in Music Education by successfully completing the 62 credits outlined below and by meeting the graduation requirements listed on page 49.

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 covering the semester in which they re-enroll.

The AFA degree in Music Education is intended for students who plan to major in music for their baccalaureate degree and incorporate instrumental or vocal performance into their career choice. Completion of the AFA degree does not fulfill the requirements of the Illinois General Education Core Curriculum. Therefore, students will need to fulfill the general education requirements of the school to which they transfer. Students may be required to demonstrate skill level through auditions and placement testing at the school to which they transfer. A bachelor's degree may also require competency in a foreign language at some colleges and universities.

It is important to meet with an advisor to update your educational plan. Please check the courses you complete each term to assist you in this process.

#### **Communication - 9 credit hours**

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

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

#### **Mathematics - 3 credit hours**

- MTH 127 Finite Mathematics I (3) **M1 906**
- MTH 141 Quantitative Literacy (3) **M1 901**
- MTH 145 Calculus and Analytic Geometry I (5) **M1 900**
- MTH 146 Calculus and Analytic Geometry II (4) **M1 900**
- MTH 221 Mathematics for Elementary Teaching II (3) **M1 903**
- MTH 222 Elementary Statistics (4) **M1 902**

*Associate in Fine Arts Degree in Music Education continues on next page.*

## Programs of Instruction and Graduation Requirements

### Associate in Fine Arts Degree in Music Education continued

- MTH 224 Calculus for Business and Social Science (4) **M1 900**
- MTH 244 Discrete Mathematics (3) **M1 905**
- MTH 246 Calculus and Analytic Geometry III (4) **M1 900**

### Physical and Life Sciences -7 credit hours

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

#### Physical Science

- AST 121 (LAB) Introduction to Astronomy (4) **P1 906L**
- CHM 120 (LAB) Chemical Concepts (4) **P1 902L**
- CHM 121 (LAB) General Chemistry I (5) **P1 902L**
- GEG 121 Physical Geography (3) **P1 909**
- GEO 120 (LAB) Earth Science (4) **P1 905 L**
- GEO 121 (LAB) Physical Geology (4) **P1 907L**
- GEO 124 Oceanography (3) **P1 905**
- GEO 224 Environmental Geology (3) **P1 908**
- PHY 120 (LAB) Practical Aspects of Physics (4) **P1 901L**
- PHY 121 (LAB) General Physics I (5) **P1 900L**
- PHY 123 (LAB) Physics for Science and Engineers (5) **P2 900L**

#### Life Science

- BIO 120 (LAB) Environmental Biology (4) **L1 905L**
- BIO 121 (LAB) General Biology I (4) **L1 900L**
- BIO 127 Introduction to Evolution (3) **L1 907**
- BIO 140 Environmental Issues (3) **L1 905**

### Social and Behavioral Sciences - 6 credit hours

- HST 221 United States History to 1876 (3) **S2 900**
- HST 222 United States History 1876 to Present (3) **S2 901**
- PSC 121 American National Politics (3) **S5 900**

### Health/Physical Development - 2 credit hours

- PED 140 Contemporary Health Issues (2)
- PED 141 Theory and Practice of Fitness (2)

### Additional College AFA Degree Requirements

#### Core Music - 19 credit hours

- MUS 128 Theory of Music I (4)
- MUS 129 Theory of Music II (4)
- MUS 224 Music Literature (3) **F1 902**
- MUS 228 Theory of Music III (4)
- MUS 229 Theory of Music IV (4)

### Electives - 16 credit hours

#### Choose 4 credit hours from below — Keyboard Skills

- MUS 143\* Applied Music -Piano I (1-2)
- MUS 144\* Applied Music - Jazz Piano I (1-2)
- MUS 145 Piano Class I (1)
- MUS 146 Piano Class II (1)
- MUS 245 Piano Class III (1)
- MUS 246 Piano Class IV (1)

#### Choose 4 credit hours from below

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

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

- MUS 141\* Applied Music Voice I (1-2) and
- MUS 241\* Applied Music Voice II (1-2) or
- MUS 143\* Applied Music Piano I (1.2) and
- MUS 243\* Applied Music Piano II (1-2) or
- MUS 144\* Applied Music Jazz Piano I (1-2) and
- MUS 244\* Applied Music Jazz Piano II (1-2) or
- MUS 160-188\* Applied Music Instrumental I (1-2) and
- MUS 260-288\* Applied Music Instrumental II (1-2)

\*Repeatable up to four credit hours

### Additional College AFA Degree Requirements

Includes one course in International/Multicultural Education taken from the list on page 66.

### Total Degree Requirements: 62 credit hours

### Other Graduation Requirements:

- Constitution Requirements (recommended methods: Illinois high school transcript showing a graduation date of 1953 or later, proficiency exam, or successful completion of PSC 121 or HST 221 at CLC)
- Cumulative CLC GPA of 2.00 or higher
- Minimum of 15 of last 30 hours at CLC
- Petition to Graduate (available in Admissions and Records)

### Notes:

## Associate in Fine Arts Degree in Music Performance Plan 16AA

Students may obtain an Associate in Fine Arts degree in Music Performance by successfully completing the 63 to 67 credits outlined below and by meeting the graduation requirements listed on page 49.

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 covering the semester in which they re-enroll.

The AFA degree in Music Performance is intended for students who plan to major in music for their baccalaureate degree and who incorporate instrumental or vocal performance into their career choice. Completion of the AFA degree does not fulfill the requirements of the Illinois General Education Core Curriculum. Students must fulfill the general education requirements of the school to which they transfer. Students may be required to demonstrate skill level through auditions and placement tests at the school to which they transfer. A bachelor's degree may also require competency in a foreign language at some colleges and universities.

It is important to meet with an advisor to update your educational plan. Please check the courses you complete each term to assist you in this process.

### Communication - 9 credit hours

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

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

### Mathematics - 3-4 credit hours

- MTH 127 Finite Mathematics I (3) **M1 906**
- MTH 141 Quantitative Literacy (3) **M1 901**
- MTH 145 Calculus and Analytic Geometry I (5) **M1 900**
- MTH 146 Calculus and Analytic Geometry II (4) **M1 900**
- MTH 221 Mathematics for Elementary Teaching II (3) **M1 903**
- MTH 222 Elementary Statistics (4) **M1 902**
- MTH 224 Calculus for Business and Social Science (4) **M1 900**

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

### Humanities and Fine Arts - 6-7 credit hours

- At least one course must be selected from the Humanities section and one course from the Fine Arts section.
- See also International/Multicultural Education requirement on page 66.

#### Humanities

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

*Associate in Fine Arts Degree in Music Performance continues on next page.*

## Programs of Instruction and Graduation Requirements

### Associate in Fine Arts Degree in Music Performance continued

#### Fine Arts

- ART 121 Introduction to Art (3) **F2 900**
- ART 240 History of Art I (3) **F2 901**
- ART 241 History of Art II (3) **F2 902**
- ART 242 History of Art III (3) **F2 902**
- ART 260 History of Photography (3) **F2 904**
- HUM 121 Introduction to Humanities I (3) **HF 902**
- HUM 122 Introduction to Humanities II (3) **HF 903**
- HUM 123 Introduction to Film (3) **F2 905**
- HUM 125 Introduction to Fine Arts I (3) **F2 900**
- HUM 126 Introduction to the Performing Arts (3) **F9 900**
- HUM 221 American Decades (3) **HF 906 D**
- HUM 222 Film and Society (3) **F2 905**
- HUM 223 Introduction to International Film (3) **F2 905**
- HUM 225 The Art of Dance (3) **F1 906**
- HUM 226 Women and the Arts (3) **HF 907 D**
- THE 121 Introduction to Theater I (3) **F1 907**

#### Physical and Life Sciences -7-8 credit hours

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

#### Physical Science

- AST 121 (LAB) Introduction to Astronomy (4) **P1 906L**
- CHM 120 (LAB) Chemical Concepts (4) **P1 902L**
- CHM 121 (LAB) General Chemistry I (5) **P1 902L**
- GEG 121 Physical Geography (3) **P1 909**
- GEO 120 (LAB) Earth Science (4) **P1 905L**
- GEO 121 (LAB) Physical Geology (4) **P1 907L**
- GEO 124 Oceanography (3) **P1 905**
- GEO 224 Environmental Geology (3) **P1 908**
- PHY 120 (LAB) Practical Aspects of Physics (4) **P1 901L**
- PHY 121 (LAB) General Physics I (5) **P1 900L**
- PHY 123 (LAB) Physics for Science and Engineers (5) **P2 900L**

#### Life Science

- BIO 120 (LAB) Environmental Biology (4) **L1 905L**
- BIO 121 (LAB) General Biology I (4) **L1 900L**
- BIO 127 Introduction to Evolution (3) **L1 907**
- BIO 140 Environmental Issues (3) **L1 905**

#### Social and Behavioral Sciences - 3 credit hours

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

#### Additional College AFA Degree Requirements

Includes one course in International/Multicultural Education taken from the list on page 66.

#### Core Music - 19 credit hours

- MUS 128 Theory of Music I (4)
- MUS 129 Theory of Music II (4)
- MUS 224 Music Literature (3) **F1 902**
- MUS 228 Theory of Music III (4)
- MUS 229 Theory of Music IV (4)

Associate in Fine Arts Degree in Music Performance  
continues on next page.

*Associate in Fine Arts Degree in Music Performance  
continued*

**Notes:**

**Electives - 16 credit hours**

**Choose 4 credit hours from below — Keyboard Skills**

- MUS 143\* Applied Music - Piano I (1-2)
- MUS 144\* Applied Music - Jazz Piano I (1-2)
- MUS 145 Piano Class I (1)
- MUS 146 Piano Class II (1)
- MUS 245 Piano Class III (1)
- MUS 246 Piano Class IV (1)

**Choose 4 credit hours from below**

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

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

- MUS 141\* Applied Music Voice I (1-2) and
- MUS 241\* Applied Music Voice II (1-2) or
  
- MUS 143\* Applied Music Piano I (1.2) and
- MUS 243\* Applied Music Piano II (1-2) or
  
- MUS 144\* Applied Music Jazz Piano I (1-2) and
- MUS 244\* Applied Music Jazz Piano II (1-2) or
  
- MUS 160-188\* Applied Music Instrumental I (1-2) and
- MUS 260-288\* Applied Music Instrumental II (1-2)

\*Repeatable up to four credit hours

**Total Degree Requirements: 63-67 credit hours**

**Other Graduation Requirements:**

- Constitution Requirements (recommended methods:  
Illinois high school transcript showing a graduation date of  
1953 or later, proficiency exam, or successful completion  
of PSC 121 or HST 221 at CLC)
- Cumulative CLC GPA of 2.00 or higher
- Minimum of 15 of last 30 hours at CLC
- Petition to Graduate (available in Admissions and Records)

**A.A., A.S., A.F.A., and A.E.S. Degrees  
International/Multicultural Education  
Requirement**

CLC offers curricula and programs that develop an appreciation for the diversity of world cultures and the importance of international and multicultural perspectives. Students are strongly encouraged to select a course(s) that exposes them to a culture(s) other than their own. One course must be taken from the following list

- ANT 121 Introduction to Anthropology (3)
- ANT 221 Cultural Anthropology (3)
- ANT 222 Introduction to Physical Anthropology (3)
- ANT 228 Cross-Cultural Relationships (3)
- ARA (ANY) Arabic Course (4)
- ART 240 History of Art I (3)
- ART 241 History of Art II (3)
- ART 242 History of Art III (3)
- BUS 270 Introduction to International Business (3)
- CHI (ANY) Chinese Course (4)
- CMM 127 Intercultural Communication (3)
- ECO 225 Comparative Economic Systems (3)
- ENG 128 Linguistics and Society (3)
- ENG 129 Women in Literature (3)
- ENG 228 World Literature (3)
- ENG 244 Mythology and Fairy Tales (3)
- ENG 246 Latin American Writers (3)
- ENG 247 International Women Writers (3)
- ENG 263 Early American Minority Writers (3)
- ENG 264 Modern American Minority Writers (3)
- FRN (ANY) French Course (3-4)
- GEG 122 Cultural Geography (3)
- GEG 123 World Regional Geography (3)
- GEG 223 Geography of Latin America (3)
- GER (ANY) German Course (3-4)
- HST 121 History of Western Civilization I (3)
- HST 122 History of Western Civilization II (3)
- HST 123 Modern Europe I (3)
- HST 124 Modern Europe II (3)
- HST 126 History of Contemporary Non-Western Civilization (3)
- HST 127 History of Chinese Culture and Society (3)
- HST 240 Afro-American History I (3)
- HST 241 Afro-American History II (3)
- HUM 121 Introduction to Humanities I (3)
- HUM 122 Introduction to Humanities II (3)
- HUM 124 International and Regional Studies in the Humanities (1-4)
- HUM 128 Introduction to Mid-Eastern Civilizations (3)
- HUM 221 American Decades (3)
- HUM 223 Introduction to International Film (3)
- HUM 226 Women and the Arts (3)
- ITL (ANY) Italian Course (4)
- JPN (ANY) Japanese Course (4)
- PHI 123 Philosophy of Religion (3)
- PHI 125 Introduction to Ethics (3)

- PHI 126 World Religions (3)
- PHI 129 Philosophical Issues in Contemporary Feminism (3)
- PHI 221 Asian Philosophy (3) **H4 903N**
- PSC 221 Comparative Political Systems (3)
- PSC 222 International Relations (3)
- RUS (ANY) Russian Course (4 hours)
- SPA (ANY) Spanish Course (3-4 hours)
- SSI 124 International Studies in Social Science (3)

**Career Programs  
Degree Requirements**

**General Requirements for the  
Associate in Applied Science Degree**

1. Completion of at least 15 of the last 30 semester hours of instruction while in attendance at the College of Lake County. (Does not include 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/her to a base preventing his or her attendance in College of Lake County courses.
2. The maintenance of a C (2.0) average for all work at CLC used to compute the grade point average.
3. Compliance with the requirement regarding the Constitution Examination (Senate Bill 195 of the 68th General Assembly of the State of Illinois) by any one of the following means:
  - a. Passing the College of Lake County proficiency examination covering the Constitution of the United States and the State of Illinois, and the proper use and display of the American flag
  - b. Successful completion of PSC 121 or HST 221 at CLC
  - c. Presenting an official Illinois high school transcript which clearly gives evidence that this requirement was satisfied for high school graduation
  - d. Completing the requirement at another institution of higher education in the State of Illinois

4. The satisfactory completion of the General Education Requirements for the appropriate degree
5. The following courses cannot be used to satisfy degree requirements and do not count in the grade point average
  - a. Course with a middle digit of 0, (ENG 108, ENG 109 and MTH 101).
  - b. Adult Education courses with a department prefix of ABE, ADE, ESL, GED, IPT or VST
  - c. General Studies courses
6. Specific electives and total hours vary by program. See program descriptions, pages 93-150.
7. 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 covering the semester in which they re-enroll.

**General Education Requirements for the Associate in Applied Science Degree**

1. Communication Arts .....6
  - a. Choose either ENG 120 or ENG 121 *and*
  - b. Choose one of the following speech courses: CMM 111, CMM 121, CMM 122, CMM 123, or CMM 128. Check the requirements of specific programs to determine which speech course you must take.
2. Humanities and Fine Arts .....3
 

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
3. Science and/or Mathematics .....3
 

Astronomy, Biology, Business Mathematics (AOS 122), Electronic Information Technology (EIT 110), Chemistry, Geography (GEG 121), Geology, Mathematics, Physics
4. Social and Behavioral Science .....3
 

Anthropology, Economics, Education, Geography (except GEG 121), History, Political Science, Psychology, Sociology
5. No course may be used to satisfy more than one General Education Requirement.

**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. The satisfactory completion of the hours and courses required for the certificate
2. For certificates of 30 semester hours or less, students must complete 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. The 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 and Community 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 and Community 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 and Continuing Education area. Courses for which certificates are awarded may or may not carry academic credit.

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## **ASSOCIATE DEGREES**

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**ARTS, SCIENCE AND  
ENGINEERING SCIENCE**

**ACCOUNTING**

(Associate in Arts)

**Plan 13AB**

**Business Division, Room A143, (847) 543-2041**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA or AS students should select from the general education requirements outlined on pages 49-56. All course prerequisites must be met.

In addition to the following courses many four-year schools accept transfer of ACC 214 Cost Accounting.

**First Semester**

ENG 121	English Composition I .....	3
PSY 121	Introduction to Psychology .....	3
BUS 121	Introduction to Business .....	3
CMM 121	Fundamentals of Speech .....	3
	Mathematics Elective <sup>2</sup> .....	4
		<hr/> 16

**Second Semester**

ENG 122	English Composition II <i>or</i>	
ENG 126	Advanced Composition: Scientific and Technical Communications .....	3
CIS 120	Introduction to Computers <sup>4</sup> .....	3
	Mathematics Elective .....	3-4
	Humanities & Fine Arts Elective <sup>1</sup> .....	3
	Physical & Life Science (lab) Elective <sup>3</sup> ....	4-5
		<hr/> 16-18

**Third Semester**

ACC 121	Financial Accounting .....	4
ECO 221	Principles of Macroeconomics .....	3
	Humanities & Fine Arts Elective .....	3
	Mathematics Elective <sup>2</sup> .....	4
		<hr/> 14

**Fourth Semester**

ACC 122	Managerial Accounting .....	4
ECO 222	Principles of Microeconomics .....	3
BUS 221	Business Law I .....	3
	Physical & Life Science Elective (non lab) <sup>3</sup> .....	3
	Humanities & Fine Arts Elective .....	3
		<hr/> 16

<sup>1</sup> PHI 122 or 125 or HUM 127 recommended to fulfill two humanities elective.

<sup>2</sup> Most Illinois Universities and colleges and UW Parkside require MTH 222 and MTH 224 or MTH 145. MTH 122 is a prerequisite for MTH 224. Information regarding mathematics requirements at other schools is available in the Counseling Center.

<sup>3</sup> Two science courses, one life science and one physical science, one of which must include lab experience. A minimum of 7 hours are required.

<sup>4</sup> Some transfer schools require a computer language course, such as MCS 140. A few schools now prefer CIS 119.

For more information on this course of study, students may contact either the division office listed or any of the following full-time faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Jay Chittal	A138	(847) 543-2520	<a href="mailto:jchittal@clcillinois.edu">jchittal@clcillinois.edu</a>
Scott Steinkamp	A134	(847) 543-2524	<a href="mailto:ssteinkamp@clcillinois.edu">ssteinkamp@clcillinois.edu</a>
Mary Zenner	A138	(847) 543-2522	<a href="mailto:mzenner@clcillinois.edu">mzenner@clcillinois.edu</a>

**ANTHROPOLOGY**

(Associate in Arts)

**Plan 13AB**

**Social Science Division, Room A244, (847) 543-2047**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

**First Semester**

ANT 121	Introduction to Anthropology .....	3
BIO 120	Environmental Biology <i>or</i>	
BIO 121	General Biology I .....	4
ENG 121	English Composition I .....	3
HST 121	History of Western Civilization I .....	3
SOC 121	Introduction to Sociology .....	3
		<hr/> 16

**Second Semester:**

ANT 221	Cultural Anthropology .....	3
ENG 122	English Composition II .....	3
HST 122	History of Western Civilization II .....	3
MTH 127	Finite Math <i>or</i>	
MTH 222	Elementary Statistics .....	3-4
PHI 121	Introduction to Philosophy .....	3

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## Associate in Arts / Associate in Science / Associate in Engineering Science

### Third Semester:

ART 240	History of Art I.....	3
GEG 121	Physical Geography .....	3
GEG 122	Cultural Geography .....	3
PSY 121	Introduction to Psychology .....	3
	Humanities & Fine Arts Elective .....	3
		15

### Fourth Semester:

ANT 224	Introduction to Archaeology .....	3
GEG 123	World Regional Geography .....	3
CMM 121	Fundamentals of Speech .....	3
	Humanities & Fine Arts Elective .....	3
	General Elective .....	3
		15

Math requirements vary at 4-year institutions

The BA degree at many 4-year institutions requires two years of foreign language at the college level. If you had two years of a foreign language in high school you need only one more year of advanced study at CLC. Students who have completed 4 years of foreign language at the high school level need not take any additional foreign language.

For the Humanities and Fine Arts electives, at least one course must be selected from Humanities and one course from Fine Arts.

Faculty who teach in this subject area are available during scheduled office hours to advise students about their program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Wendy Brown	A254	(847) 543-2941	<a href="mailto:wbrown@clcillinois.edu">wbrown@clcillinois.edu</a>
Jerry Hanson	A251	(847) 543-2931	<a href="mailto:jhanson@clcillinois.edu">jhanson@clcillinois.edu</a>

## ART

(Associate in Arts)

**Plan 13AB**

**Humanities Division, Room B237, (847) 543-2040**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

### First Semester

ENG 121	English Composition I <sup>1</sup> .....	3
ART 124	Basic Drawing .....	3
ART 122	Basic Color and Design .....	3
ART 240	History of Art I <sup>1</sup> .....	3
	Physical & Life Sciences (lab) Elective <sup>2</sup> ..	4
		16

### Second Semester

ENG 122	English Composition II <sup>1</sup> .....	3
ART 123	Color and Design Techniques .....	3
ART 127	Intermediate Drawing .....	3
ART 241	History of Art II .....	3
	Social & Behavioral Sciences Elective <sup>1</sup> .....	3
		15

### Third Semester

CMM 121	Fundamentals of Speech <sup>1</sup> .....	3
ART 225	Figure Drawing .....	3
ART 242	History of Art III .....	3
	Mathematics Elective .....	3
	Social & Behavioral Sciences Elective .....	3
		15

### Fourth Semester

ART 221	Advanced Design .....	3
	Humanities & Fine Arts Elective <sup>3</sup> .....	6
	Physical & Life Sciences Lab Elective <sup>2</sup> .....	3
	Social & Behavioral Sciences Elective .....	3
	General Elective .....	2
		17

<sup>1</sup> Meets general education core requirements

<sup>2</sup> Two science courses, one physical science, one life science, one must include lab experience

<sup>3</sup> May also satisfy International Education requirements

For more information about this course of study, students may contact either the division office listed or any of the following full-time faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Reginald Coleman	D112	(847) 543-2964	<a href="mailto:rcoleman@clcillinois.edu">rcoleman@clcillinois.edu</a>
Terry Dixon	D112	(847) 543-2234	<a href="mailto:tdixon@clcillinois.edu">tdixon@clcillinois.edu</a>
Anthony Holmes	L035	(847) 543-2437	<a href="mailto:tholmes@clcillinois.edu">tholmes@clcillinois.edu</a>
Robert Lossmann	D110	(847) 543-2436	<a href="mailto:rlossmann@clcillinois.edu">rlossmann@clcillinois.edu</a>
Roland Miller	D108	(847) 543-2962	<a href="mailto:miller@clcillinois.edu">miller@clcillinois.edu</a>



**BIOLOGICAL SCIENCES  
(BOTANY, ECOLOGY, MICROBIOLOGY,  
WILDLIFE MANAGEMENT & ZOOLOGY)**

(Associate in Science)

**Plan 11AB**

**Biological and Health Sciences Division  
Room C-140, (847) 543-2042**

The following courses are *recommended* for students who intend to complete the A.S. or A.A. degree at the College of Lake County and transfer to a four-year college or university. All students must complete the general requirements listed on page 49-56 of this catalog in order to earn the A.S. or A.A. degree. **Students should become familiar as soon as possible with the requirements of the institution to which they plan to transfer.** All course prerequisites must be met. *Students should choose electives only after consulting with a department advisor.*

This sequence delays physics until the junior year.

**First Semester**

BIO	121	General Biology I.....	4
CHM	121	General Chemistry .....	5
ENG	121	English Composition I .....	3
		Humanities & Fine Arts Elective .....	3
		Social & Behavioral Sciences Elective ....	3
			<hr/> 18

**Second Semester**

BIO	122	General Biology II .....	4
CHM	123	General Chemistry II .....	5
ENG	122	English Composition II <i>or</i>	
ENG	126	Advanced Composition: Scientific & Technical Composition .....	3
MTH	123	Trigonometry .....	3
		Social & Behavioral Sciences Elective ....	3
			<hr/> 18

**Third Semester**

BIO	222	General Botany .....	4
CHM	222	Organic Chemistry I.....	5
MTH	145	Calculus and Analytic Geometry I.....	5
		Humanities & Fine Arts Elective .....	3
			<hr/> 17

**Fourth Semester**

BIO	221	General Zoology .....	4
CHM	223	Organic Chemistry II .....	5
CMM	121	Fundamentals of Speech .....	3
		Social & Behavioral Sciences Elective ....	3
		Humanities & Fine Arts Elective .....	3
			<hr/> 18

Also include one course in International/Multicultural Education, which must be taken from the list on page 66. If chosen carefully, this course may also be used to meet a Social & Behavioral Sciences or Humanities/Fine Arts requirement.

For more information on this course of study, students may contact either the division office listed or any of the following faculty members. Faculty are available during scheduled office hours to advise students about program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Kelly Cartwright	C146	(847) 543-2792	<a href="mailto:kcartwright@clcollinois.edu">kcartwright@clcollinois.edu</a>
Mark Coykendall	C148	(847)-543-2481	<a href="mailto:coykendall@clcollinois.edu">coykendall@clcollinois.edu</a>
Lakshmi Gollapudi	C144	(847)-543-2324	<a href="mailto:lgollapudi@clcollinois.edu">lgollapudi@clcollinois.edu</a>
Jerry Hinkley	C145	(847) 543-2322	<a href="mailto:jhinkley@clcollinois.edu">jhinkley@clcollinois.edu</a>
Elisabeth Martin	C147	(847)-543-2884	<a href="mailto:emartin@clcollinois.edu">emartin@clcollinois.edu</a>
Elizabeth Meyer	C148	(847)-543-2772	<a href="mailto:meyer@clcollinois.edu">meyer@clcollinois.edu</a>
Bob Remedi	C145	(847)-543-2326	<a href="mailto:remedi@clcollinois.edu">remedi@clcollinois.edu</a>
Cynthia Trombino	C147	(847)-543-2882	<a href="mailto:trombino@clcollinois.edu">trombino@clcollinois.edu</a>
Cheena Wade	C146	(847) 543-2883	<a href="mailto:cheena@clcollinois.edu">cheena@clcollinois.edu</a>

**BUSINESS ADMINISTRATION**

(Associate in Arts)

**Plan 13AB**

**Business Division, Room A143, (847) 543-2041**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA or AS students should select from the general education requirements outlined on pages 49-56. All course prerequisites must be met.

**First Semester**

ENG 121	English Composition I .....	3
PSY 121	Introduction to Psychology .....	3
BUS 121	Introduction to Business .....	3
CMM 121	Fundamentals of Speech .....	3
	Mathematics Elective .....	4
		<hr/> 16

**Second Semester**

ENG 122	English Composition II <i>or</i>	
ENG 126	Advanced Composition: Scientific & Technical Composition .....	3
CIS 120	Introduction to Computers .....	3
	Mathematics Elective .....	3-4
	Humanities & Fine Arts Elective .....	3
	Physical & Life Science (lab) Elective .....	4-5
		<hr/> 16-18

**Third Semester**

ACC 121	Financial Accounting .....	4
ECO 221	Principles of Macroeconomics .....	3
	Humanities & Fine Arts Elective .....	3
	Mathematics Elective .....	4
		<hr/> 14

**Fourth Semester**

ACC 122	Managerial Accounting .....	4
ECO 222	Principles of Microeconomics .....	3
BUS 221	Business Law I .....	3
	Physical & Life Science Elective (non-lab) .....	3-4
	Humanities & Fine Arts Elective .....	3
		<hr/> 16-17

<sup>1</sup> PHI 122, PHI 125, or HUM 127 recommended to fulfill one humanities elective.

<sup>2</sup> Most Illinois Universities and colleges and UW Parkside require MTH 222 and MTH 224 or MTH 145. MTH 122 is a prerequisite for MTH 224. Information regarding mathematics requirements at other schools is available in the Counseling Center. Math courses require a Math Placement Test.

<sup>3</sup> Two science courses, one life science, one physical science, one of which must include lab experience. A minimum of 7 hours is required.

<sup>4</sup> Some transfer schools require a computer language course, such as MCS 140. A few schools now prefer CIS 119.

For more information on this course of study, students may contact either the division office listed or any of the following full-time faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Litsa Press	A137	(847) 543-2921	<a href="mailto:litsapress@clcollinois.edu">litsapress@clcollinois.edu</a>
Ellen Rubert	A137	(847) 543-2821	<a href="mailto:erubert@clcollinois.edu">erubert@clcollinois.edu</a>
James Paradiso	A139	(847) 543-2525	<a href="mailto:paradiso@clcollinois.edu">paradiso@clcollinois.edu</a>

**CHEMISTRY**

**(Associate in Science)**

**Plan 11AB**

**Biological and Health Sciences, Room C140,  
(847) 543-2042**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AS, students should select from the general education requirements outlined on pages 54-56. All course prerequisites must be met.

**First Semester**

CHM 121	General Chemistry I .....	5
ENG 121	English Composition I .....	3
MTH 145	Calculus and Analytic Geometry I .....	5
	Humanities & Fine Arts Elective (Humanities) .....	3
		<hr/> 16

**Second Semester**

CHM 123	General Chemistry II .....	5
ENG 122	English Composition II <i>or</i>	
ENG 126	Advanced Composition: Scientific & Technical Communications .....	3
MTH 146	Calculus and Analytic Geometry II' .....	4
	Social & Behavioral Sciences Elective ....	3
	Humanities & Fine Arts Elective (Fine Arts) .....	3
		<hr/> 18

**Summer Session**

BIO 121	General Biology I <i>or</i>	
BIO 127	Introduction to Evolution .....	3-4
		<hr/> 3-4

**Third Semester**

CHM 222	Organic Chemistry I .....	5
PHY 121	General Physics I .....	5
CMM 121	Fundamentals of Speech .....	3
	Social & Behavioral Sciences Elective ....	3
		<hr/> 16

**Fourth Semester**

CHM 223	Organic Chemistry II .....	5
PHY 122	General Physics II .....	5
	Social & Behavioral Sciences Elective ....	3
	Humanities & Fine Arts Elective .....	3
		<hr/> 16

<sup>1</sup> A third semester of calculus may be required by some institutions.

Also include one course in International/Multicultural Education, which must be taken from the list on page 66. If chosen carefully, this course may also be used to meet a Social & Behavioral Sciences or Humanities/Fine Arts requirement.

For more information on this course of study, students may contact either the division office listed or any of the following faculty members. Faculty are available during scheduled office hours to advise students about program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Darryl Johnson	B234	(847) 543-2877	<a href="mailto:dj@clcollinois.edu">dj@clcollinois.edu</a>
Anne Loeb	B235	(847) 543-2308	<a href="mailto:aloebchem@clcollinois.edu">aloebchem@clcollinois.edu</a>
Tara Simmons	B234	(847) 543-2309	<a href="mailto:tsimmons@clcollinois.edu">tsimmons@clcollinois.edu</a>
Mary Urban	B235	(847) 543-2876	<a href="mailto:murban@clcollinois.edu">murban@clcollinois.edu</a>

## COMMUNICATIONS

(Associate in Arts)

### Plan 13AB

**Humanities Division, Room B237, (847) 543-2040**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

#### First Semester

ENG 121	English Composition I .....	3
CMM 121	Fundamentals of Speech .....	3
ENG 123	Mass Communications .....	3
	Social & Behavioral Science Elective .....	3
	Physical & Life Science (lab) Elective .....	4
	<b>16</b>	

#### Second Semester

ENG 122	English Composition II .....	3
CMM 122	Business & Professional Speaking .....	3
	Physical & Life Science Elective .....	3
	Social & Behavioral Science Elective .....	3
	General Elective .....	3
	<b>15</b>	

#### Third Semester

CMM 123	Dynamics/Small Group Discussion .....	3
ENG 244	Mythology and Fairy Tales .....	3
	Mathematics Elective .....	3
	Social & Behavioral Science Elective .....	3
	General Elective .....	3
	Physical Education Elective .....	1
	<b>16</b>	

#### Fourth Semester

CMM 124	Oral Interpretation <i>or</i>	
CMM 128	Interviewing Practices .....	3
ENG 128	Linguistics and Society .....	3
PHI 121	Introduction to Philosophy .....	3
HUM 123	Introduction to Film .....	3
	General Elective .....	3
	Physical Education Elective .....	1
	<b>16</b>	

For more information about this course of study, students may contact either the division office listed or any of the following full-time faculty.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Nedra Adams-Soller	B261	(847) 543-2957	<a href="mailto:nadams@clcollinois.edu">nadams@clcollinois.edu</a>
Robert Coscarelli	D110	(847) 543-2623	<a href="mailto:bobc@clcollinois.edu">bobc@clcollinois.edu</a>
Fred Gifford	B260	(847) 543-2556	<a href="mailto:fgifford@clcollinois.edu">fgifford@clcollinois.edu</a>
Rick Soller	P221	(847) 543-2958	<a href="mailto:rick-soller@clcollinois.edu">rick-soller@clcollinois.edu</a>

## COMPUTER SCIENCE

(Associate in Science)

### Plan 11AB

**Engineering, Mathematics and Physical Science Division  
Room B162, (847) 543-2044**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AS, students should select from the general education requirements outlined on pages 54-56. All course prerequisites must be met.

For those transferring to Northern Illinois University, Southern Illinois University, or the University of Illinois, a foreign language component is also required.

#### First Semester

MCS 141	Computer Science I .....	4
MTH 144	Precalculus .....	5
ENG 121	English Composition I .....	3
	Social & Behavioral Sciences Elective' .....	3
	<b>15</b>	

#### Second Semester

MCS 142	Computer Programming II .....	3
MTH 145	Calculus and Analytic Geometry I .....	5
ENG 122	English Composition II <i>or</i>	
ENG 126	Advanced Composition: Scientific and Technical Communications .....	3
	Social & Behavioral Sciences Elective' .....	3
	Humanities Elective' .....	3
	<b>17</b>	

**Third Semester**

MSC 240	Introduction to Computer Systems .....	3
MTH 146	Calculus and Analytic Geometry II .....	4
PHY 123	Physics for Science and Engineering I ....	5
CMM 121	Fundamentals of Speech .....	3
		<u>15</u>

**Fourth Semester**

BIO 121	General Biology I <i>or</i>	
BIO 120	Environmental Biology .....	4
	General Elective <sup>2</sup> .....	3-5
	Fine Arts Elective <sup>1</sup> .....	3
	Humanities or Fine Arts Elective <sup>1</sup> .....	3
	Social & Behavioral Sciences Elective <sup>1</sup> ....	3
		<u>16-18</u>

<sup>1</sup> At least one course should meet the International/Multicultural Education requirement.

<sup>2</sup> Recommended electives are MTH 227, MTH 244, MTH 246, PHY 124, PHY 221.

NOTE: Some transfer institutions are accepting MCS 240, Introduction to Computer Systems, as an elective course. An additional assembler course at the transfer institution may be necessary in order for you to complete your baccalaureate program.

For more information on this course of study students may contact either the division office listed or any of the following faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Natalia Casper	B135	(847) 543-2801	<a href="mailto:ncasper@clcollinois.edu">ncasper@clcollinois.edu</a>
Marvin Johnson	B133	(847) 543-2744	<a href="mailto:mjohnson@clcollinois.edu">mjohnson@clcollinois.edu</a>
Greg Morris	A234	(847) 543-2905	<a href="mailto:gemorris@clcollinois.edu">gemorris@clcollinois.edu</a>
Scott Reed	B136	(847) 543-2909	<a href="mailto:reed@clcollinois.edu">reed@clcollinois.edu</a>

**CRIMINAL JUSTICE**

(Associate in Arts)

**Plan 13AB**

**Social Science Division, Room A244, (847) 543-2047**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

**First Semester**

ENG 121	English Composition I .....	3
CRJ 121	Introduction to Criminal Justice .....	3
SOC 121	Introduction to Sociology .....	3
PHI 125	Introduction to Ethics .....	3
MTH 222	Elementary Statistics .....	4
		<u>16</u>

**Second Semester**

ENG 122	English Composition II .....	3
CRJ 123	Introduction to Criminology .....	3
GEG 121	Physical Geography .....	3
CMM 121	Fundamentals of Speech .....	3
	Humanities & Fine Arts Elective.....	3
		<u>15</u>

**Third Semester**

CRJ 229	Juvenile Delinquency .....	3
BIO 120	Environmental Biology .....	4
PSC 121	American National Politics .....	3
HST 121	History of Western Civilization I.....	3
	Humanities & Fine Arts Elective.....	3
		<u>16</u>

**Fourth Semester**

PSY 121	Introduction to Psychology .....	3
CRJ 124	Penology and Corrections .....	3
CRJ 221	Criminal Law .....	3
ANT 221	Cultural Anthropology .....	3
	General Elective.....	3
		<u>15</u>

Math requirements vary at 4-year institutions

The BA degree at many four-year institutions requires two years of foreign language at the college level. If you had two years of a foreign language in high school, you need only one more year of advanced study at CLC. Students who have completed four years of foreign language at the high school level need not take any additional foreign language.

For the Humanities and Fine Arts electives, at least one course must be selected from Humanities and one course from Fine Arts.

Faculty who teach in this subject area are available during scheduled office hours to advise students about their program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Roger Voltz	D118	(847) 543-2468	<a href="mailto:rvoltz@clcollinois.edu">rvoltz@clcollinois.edu</a>
Thomas Arnold	D118	(847) 543-2944	<a href="mailto:tra@clcollinois.edu">tra@clcollinois.edu</a>

**EARLY CHILDHOOD EDUCATION  
TRANSFER DEGREE**

(Associate in Arts)

**Plan 13AB**

**Social Science Division, Room A244, (847) 543-2047**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

**First Semester**

ENG 121	English Composition I .....	3
PSY 121	Introduction to Psychology .....	3
BIO 121	General Biology I <i>or</i>	
BIO 120	Environmental Biology .....	4
PSC 121	American National Politics .....	3
EDU 120	Observation and Guidance of Children ....	3
		<b>15</b>

**Second Semester**

ENG 122	English Composition II .....	3
MTH 121	Mathematics for Elementary Teaching I ..	3
PSY 222	Child Growth and Development .....	3
HUS 121	Health and Nutrition .....	2
	Humanities & Fine Arts Elective .....	3
		<b>15</b>

**Third Semester**

CMM 121	Fundamentals of Speech .....	3
MUS 124	Introduction to Music.....	3
ECE 223	Child, Family, and Community .....	3
HST 221	United States History to 1876 <i>or</i>	
HST 222	United States History 1876 to Present.....	3
MTH 221	Mathematics for Elementary	
	Teaching II .....	3
		<b>15</b>

**Fourth Semester**

EDU 222	The Exceptional Child .....	3
GEG 121	Physical Geography <i>or</i>	
	other physical science .....	3
ECE 221	Principles of Early	
	Childhood Education .....	3
PSY 221	Educational Psychology .....	3
	Humanities/Non-Western Elective <sup>1</sup> .....	3
		<b>15</b>

This degree plan would most benefit students who plan to transfer to a four-year college or university to obtain Illinois State Board of Education Type 04 certification — teaching children from birth to grade 3. In addition, a person who follows the sequence of courses recommended above is considered to be qualified by the Illinois Department of Children and Family Services to be a teacher and/or director of a child care center or preschool.

Math requirements vary at 4-year institutions

<sup>1</sup> Approved Humanities/Fine Arts Non-Western Culture courses include ENG 246, HUM 128, and PHI 221

Faculty are available during scheduled office hours to advise students about their program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Carol Huntsinger	D120	(847) 543-2742	<a href="mailto:chuntsinger@clcillinois.edu">chuntsinger@clcillinois.edu</a>
Diane Wolter	D122	(847) 543-2570	<a href="mailto:dwolter@clcillinois.edu">dwolter@clcillinois.edu</a>

**ECONOMICS**

(Associate in Arts)

**Plan 13AB**

**Social Science Division, Room A244, (847) 543-2047**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

**First Semester**

ECO 221	Principles of Macroeconomics.....	3
ENG 121	English Composition I .....	3
PHI 121	Introduction to Philosophy .....	3
MTH 127	Finite Mathematics <i>or</i>	
MTH 145	Calculus & Analytic Geometry I1 .....	3-5
	General Elective .....	3
		<b>15-17</b>

**Second Semester**

ECO 222	Principles of Microeconomics .....	3
ENG 122	English Composition II .....	3
PSC 121	American National Politics .....	3
	Physical & Life Science (lab) Elective ....	4
	Humanities & Fine Arts Elective .....	3

**16**

## Associate in Arts / Associate in Science / Associate in Engineering Science

### Third Semester

CMM 121	Fundamentals of Speech .....	3
ECO	Economics Elective .....	3
	Humanities & Fine Arts Elective .....	3
	Physical & Life Science (non-lab) Elective .....	3
	General Elective .....	3
		15

### Fourth Semester

MTH 222	Elementary Statistics .....	3
HST 121	History of Western Civilization I .....	3
SOC 121	Introduction to Sociology .....	3
PSC 122	State and Local Politics .....	3
	General Elective .....	3
		15

Math requirements vary at 4-year institutions

The BA degree at many 4-year institutions requires two years of foreign language at the college level. If you had two years of a foreign language in high school you need only one more year of advanced study at CLC. Students who have completed 4 years of foreign language at the high school level need not take any additional foreign language.

For the Humanities and Fine Arts Electives, at least one course must be selected from Fine Arts and one from Humanities.

Faculty who teach in this subject area are available during scheduled office hours to advise students about their program and career opportunities.

Name	Office	Phone Number	E-mail Address
Chandrea Hopkins	A252	(847) 543-2539	<a href="mailto:ccrowe@clcillinois.edu">ccrowe@clcillinois.edu</a>
Robert Kerr	A237	(847) 543-2533	<a href="mailto:rwkerr@clcillinois.edu">rwkerr@clcillinois.edu</a>
Dale Warnke	A237	(847) 543-2943	<a href="mailto:dwwarnke@clcillinois.edu">dwwarnke@clcillinois.edu</a>

## ELEMENTARY EDUCATION

(Associate in Arts)

Plan 13AB

Social Sciences Division, Room A244, (847) 543-2047

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.



### First Semester

ENG 121	English Composition I .....	3
ART 121	Introduction to Art <i>or</i>	
ART 240	History of Art I <i>or</i>	
ART 241	History of Art II <i>or</i>	
ART 242	History of Art III <i>or</i>	
ART 260	History of Photography .....	3
MTH 121	Mathematics for Elementary Teaching I ..	3
EDU 221	Introduction to Teaching .....	3
PSY 121	Introduction to Psychology .....	3
		15

### Second Semester

ENG 122	English Composition II .....	3
MUS 124	Introduction to Music <i>or</i>	
MUS 224	Music Literature .....	3
MTH 221	Mathematics for Elementary Teaching II .....	3
PSY 222	Child Growth and Development .....	3
PSC 121	American National Politics .....	3
		15

### Third Semester

PED 140	Contemporary Health Issues .....	2
BIO 121	General Biology I <i>or</i>	
BIO 120	Environmental Biology .....	4
ENG 246	Latin American Writers <i>or</i>	
GEG 223	Geography of Latin America <i>or</i>	
HST 126	History of Contemporary Non-Western Civilization <i>or</i>	
HST 127	History of Chinese Culture and Society ..	3
EDU 222	The Exceptional Child .....	3
EDU 223	Technology in the Classroom .....	3
EDU 122	Preclinical Education Experience .....	1
		16

## Associate in Arts / Associate in Science / Associate in Engineering Science

### Fourth Semester

CMM 121	Fundamentals of Speech .....	3
ENG 223	Survey of Major American Writers <i>or</i>	
ENG 225	Major Trends and Authors of English Literature <i>or</i>	
ENG 226	Modern English Literature <i>or</i>	
ENG 227	Introduction to Shakespeare <i>or</i>	
ENG 228	World Literature <i>or</i>	
ENG 229	Twentieth Century American Literature <i>or</i>	
ENG 241	Introduction to Poetry <i>or</i>	
ENG 243	Introduction to Fiction .....	3
CHM 120	Chemical Concepts <i>or</i>	
GEO 120	Earth Science <i>or</i>	
PHY 120	Practical Aspects of Physics .....	4
HST 221	United States History to 1876 <i>or</i>	
HST 222	United States History 1876 to Present.....	3
	Academic Concentration/ Elective Course <sup>1</sup> .....	3
		15

This degree plan would most benefit students who plan to transfer to a four-year college or university to obtain Illinois K-9 teacher certification. Students who plan to obtain Illinois teacher certification for grades 6-12 should major in the discipline they would like to teach, i.e., if you want to teach history, follow the history program plan.

<sup>1</sup> Academic concentration/elective courses should be selected in consultation with the EDU advisor or counselor

For more information on this course of study students may contact either the division office listed or one of the following full-time faculty members.

Name	Office	Phone Number	E-mail Address
Carol Huntsinger	D120	(847) 543-2742	<a href="mailto:chuntsinger@clcillinois.edu">chuntsinger@clcillinois.edu</a>

## ENGINEERING

(Associate in Engineering Science)

### Plan 12AB

**Engineering, Mathematics and Physical Science Division,  
Room B162, (847) 543-2044**

The engineering transfer curriculum at CLC is a two-year program which provides the prospective engineering student with the educational background required for continued engineering study at a four-year college or university. The Engineering Transfer program at CLC parallels the first two years of engineering programs at most universities accredited by the Accrediting Board for Engineering and Technology (ABET).

Since minor differences in course requirements exist at different universities and in different engineering disciplines within the same university, students are strongly advised to meet with a faculty advisor from the engineering department and consult the college catalog of their intended transfer institution. The course selections indicated in the program requirements below are recommended for most efficient transfer to a university with junior standing. Some variation in course selection may be advisable, depending on the intended engineering discipline and on transfer institution requirements.

Engineering students may also elect to pursue the Associate of Engineering Science (A.E.S.) degree, which may facilitate transfer to some engineering schools in Illinois. Students pursuing the A.E.S. degree should make sure their course selection meets the requirements of the discipline and school to which they want to transfer.

### First Semester

MTH 145	Calculus and Analytic Geometry I.....	5
CHM 121	General Chemistry I.....	5
EGR 121	Engineering Graphics.....	3
ENG 121	English Composition I .....	3
		16

### Second Semester

MTH 146	Calculus and Analytic Geometry II .....	4
CHM 123	General Chemistry II .....	5
ENG 122	English Composition II <i>or</i>	
ENG 126	Advanced Composition: Scientific and Technical Communications .....	3
PHY 123	Physics for Science and Engineering.....	5
		17

### Third Semester

MCS 140	Computer Programming I .....	3
PHY 124	Physics for Science and Engineering II....	5
	Humanities & Fine Arts Elective .....	3
MTH 227	Differential Equations .....	3
	Elective per transfer institution requirement (e.g. MCS 142) .....	3
		17

### Fourth Semester

MTH 246	Calculus and Analytical Geometry III .....	4
	Social & Behavioral Sciences Elective ....	3
EGR 260	Introduction to Circuit Analysis.....	4
EGR 221	Statics and Dynamics.....	5
		16

### Summer Sessions

(AES completion and/or as required by Transfer Institution)

EGR 222	Engineering Mechanics of Materials .....	3
PHY 221	Physics for Science and Engineering III ..	4
		7

Courses Offered in Selected Semesters Only						
Course	Fall		Spring		Summer	
	Day	Night	Day	Night	Day	Night
MTH 224				X		X
MTH 227	X			X		
MTH 244			X			
MTH 246	X	X		X	X	
MCS 140	X	X	X		X	
MCS 142				X		
PHY 123	X	X	X			
PHY 124	X		X	X		
PHY 221						X
EGR 260			X			
EGR 221				X		
EGR 222						X

Night classes begin no earlier than 4:00 P.M.  
Above schedule assumes sufficient enrollment.

For more information about this course of study, students may contact either the division office listed or any of the following full-time faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Rob Twardock	A220a	(847) 543-2903	<a href="mailto:rtwardock@clcillinois.edu">rtwardock@clcillinois.edu</a>

## ENGLISH

(Associate in Arts)

**Plan 13AB**

**Humanities Division, Room B237, (847) 543-2040**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

### First Semester

ENG 121	English Composition I .....	3
	Humanities & Fine Arts	
	Elective (non-ENG) .....	3
	Social & Behavioral Sciences Elective ....	3
	Mathematics Elective .....	3
	Foreign Language Elective <sup>1</sup> .....	4
		<hr/> 16

### Second Semester

ENG 122	English Composition II .....	3
ENG 223	Survey of Major American Writers <i>or</i>	
ENG 225	Major Trends and Authors of	
	English Literature .....	3
CMM 121	Fundamentals of Speech .....	3
	Social & Behavioral Sciences Elective ....	3
	Foreign Language Elective <sup>1</sup> .....	4
		<hr/> 16

### Third Semester

ENG 229	20th Century American Literature <i>or</i>	
ENG 226	Modern English Literature .....	3
	Humanities & Fine Arts	
	Elective (non-ENG) .....	3
	Physical & Life Sciences Lab Elective <sup>2</sup> ....	4
	Social & Behavioral Sciences Elective ....	3
	General Elective .....	3
		<hr/> 16

### Fourth Semester

ENG 244	Mythology & Fairy Tales <i>or</i>	
ENG 222	Creative Writing .....	3
ENG 228	World Literature <i>or</i>	
ENG 227	Introduction to Shakespeare .....	3
	Physical & Life Sciences Elective <sup>2</sup> .....	4
	Humanities & Fine Arts Elective .....	3
	General Elective .....	3
		<hr/> 16

<sup>1</sup> The B.A. degree at many 4-year institutions requires two years of foreign language at the college level. If you had two years of a foreign language in high school you need only one more year at CLC at an advanced level. Students who have completed 4 years of foreign language at the high school level need not take any additional foreign language.

<sup>2</sup> One physical science, one life science, one must include a lab.

For more information about this course of study, students may contact either the division office listed or any of the following full-time faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Theresa Aguinaldo	D116	(847) 543-2955	<a href="mailto:taaguinaldo@clcillinois.edu">taaguinaldo@clcillinois.edu</a>
MaryAnn Bretzlauf	B249	(847) 543-2463	<a href="mailto:mbretzlauf@clcillinois.edu">mbretzlauf@clcillinois.edu</a>
Cathy Colton	D110	(847) 543-2721	<a href="mailto:ccolton@clcillinois.edu">ccolton@clcillinois.edu</a>
Penne Devery	B263	(847) 543-2561	<a href="mailto:pdevery@clcillinois.edu">pdevery@clcillinois.edu</a>
Rita Eastburg	D116	(847) 543-2743	<a href="mailto:reastburg@clcillinois.edu">reastburg@clcillinois.edu</a>
Marlaina Easton	D116	(847) 543-2946	<a href="mailto:measton@clcillinois.edu">measton@clcillinois.edu</a>

*Faculty Continued on next page.*

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Joyce Gatto	D116	(847) 543-2304	<a href="mailto:jgatto@clcillinois.edu">jgatto@clcillinois.edu</a>
Patrick Gonder	C146	(847) 543-2555	<a href="mailto:pgonder@clcillinois.edu">pgonder@clcillinois.edu</a>
Elizabeth Keats	B252	(847) 543-2949	<a href="mailto:com431@clcillinois.edu">com431@clcillinois.edu</a>
Mike Latza	B250	(847) 543-2956	<a href="mailto:mlatza@clcillinois.edu">mlatza@clcillinois.edu</a>
Martin Ley	B262	(847) 543-2969	<a href="mailto:martin.ley@clcillinois.edu">martin.ley@clcillinois.edu</a>
George Liu	A239	(847) 543-2948	<a href="mailto:gliu@clcillinois.edu">gliu@clcillinois.edu</a>
Sean Murphy	D108	(847) 543-2554	<a href="mailto:smurphy@clcillinois.edu">smurphy@clcillinois.edu</a>
Judy Rosenberg	B252	(847) 543-2546	<a href="mailto:josenb@clcillinois.edu">josenb@clcillinois.edu</a>
Ted Schaefer	A235	(847) 543-2535	<a href="mailto:tschafer@clcillinois.edu">tschafer@clcillinois.edu</a>
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Jennifer Staben	B250	(847) 543-2594	<a href="mailto:jstaben@clcillinois.edu">jstaben@clcillinois.edu</a>
Larry Starzec	A235	(847) 543-2557	<a href="mailto:lstarzec@clcillinois.edu">lstarzec@clcillinois.edu</a>
Jacinta Thomas	A240	(847) 543-2565	<a href="mailto:jacath@clcillinois.edu">jacath@clcillinois.edu</a>
Diane Williams	A239	(847) 543-2364	<a href="mailto:dee@clcillinois.edu">dee@clcillinois.edu</a>
Mary Winter	B260	(847) 543-2963	<a href="mailto:mwinter@clcillinois.edu">mwinter@clcillinois.edu</a>

## FRENCH

(Associate in Arts)

### Plan 13AB

Humanities Division, Room B237, (847) 543-2040

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

#### First Semester

FRN 121	Beginning Conversational French I <i>or</i>	
FRN 221	Intermediate French I <sup>1</sup> .....	4
ENG 121	English Composition I .....	3
	Social & Behavioral Sciences Elective ....	3
	Humanities & Fine Arts Elective .....	3
	General Elective (non-French).....	3
		<b>16</b>

#### Second Semester

FRN 122	Beginning Conversational French II <i>or</i>	
FRN 222	Intermediate French II <sup>1</sup> .....	4
ENG 122	English Composition II <i>or</i>	
ENG 126	Advanced Composition: Scientific and Technical Communications <sup>2</sup> .....	3
	Social & Behavioral Sciences Elective ....	3
	Mathematics Elective .....	3
	Humanities & Fine Arts Elective .....	3
		<b>16</b>

#### Third Semester

FRN 221	Intermediate French I <i>or</i>	
FRN 223	French Civilization I <sup>1</sup> .....	4
CMM 121	Fundamentals of Speech .....	3
	Physical & Life Sciences (lab) Elective <sup>4</sup> ..	4
	General Elective .....	3
	General Elective .....	2
		<b>16</b>

#### Fourth Semester

FRN 222	Intermediate French II <i>or</i>	
FRN 224	French Civilization II <sup>1</sup> .....	4
	Social & Behavioral Sciences Elective ....	3
	Physical & Life Science (non-lab) Elective .....	3
	General Elective .....	3
	General Elective .....	3
		<b>16</b>

<sup>1</sup> Students with at least two recent years of successful high school French should enroll in FRN 221-222.

<sup>2</sup> Students wishing to coordinate French with Business or other technical study should opt for ENG 126.

<sup>3</sup> Students who have completed the intermediate courses should enroll in FRN 223-224 (French Civilization).

<sup>4</sup> One physical science, one life science, one must include a lab.

Faculty who teach in this subject area are available during scheduled office hours to advise students about their program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
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Maria Manterola	B247	(847) 543-2291	<a href="mailto:mmanterola@clcillinois.edu">mmanterola@clcillinois.edu</a>
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## GEOGRAPHY

(Associate in Arts)

### Plan 13AB

Social Science Division, Room A244, (847) 543-2047

The following courses are **recommended** for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

#### First Semester

ENG 121	English Composition I .....	3
GEG 121	Physical Geography .....	3
MTH 141	Quantitative Literacy .....	3
	Humanities & Fine Arts Elective .....	3
	Physical Science Elective .....	3
		<b>15</b>

## Associate in Arts / Associate in Science / Associate in Engineering Science

### Second Semester:

ANT 121	Introduction to Anthropology .....	3
ENG 122	English Composition II .....	3
BIO 121	General Biology .....	4
	Mathematics Elective .....	3
	Humanities & Fine Arts Elective .....	3
		16

### Third Semester:

ECO 221	Principles of Macroeconomics .....	3
GEG 122	Cultural Geography .....	3
HST 121	History of Western Civilization I .....	3
CMM 121	Fundamentals of Speech .....	3
	Humanities & Fine Arts Elective .....	3
		15

### Fourth Semester:

ANT 221	Cultural Anthropology .....	3
GEG 123	World Regional Geography .....	3
HST 122	History of Western Civilization II .....	3
	Mathematics or Physical & Life Science Elective .....	3
	General Elective .....	3
		15

Math requirements vary at 4-year institutions

The BA degree at many 4-year institutions requires two years of foreign language at the college level. If you had two years of a foreign language in high school, you need only one more year of advanced study at CLC. Students who have completed 4 years of foreign language at the high school level need not take any additional foreign language.

For the Humanities and Fine Arts electives, at least one course must be selected from Humanities and one from Fine Arts.

For more information on this course of study students may contact either the division office listed or the following full-time faculty member.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Noel Stirrat	A251	(847) 543-2942	<a href="mailto:stirrat-geog@clcillinois.edu">stirrat-geog@clcillinois.edu</a>

## GEOLOGY

(Associate in Science)

**Plan 11AB**

**Engineering, Mathematics and Physical Science Division  
Room B162, (847) 543-2044**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AS students should select from the general education requirements outlined on pages 54-56. All course prerequisites must be met.

For those transferring to the University of Illinois a strong foreign language component is also required.

### First Semester

ENG 121	English Composition I .....	3
MTH 145	Calculus and Analytic Geometry I .....	5
CHM 121	General Chemistry I .....	5
GEO 121	Physical Geology .....	4
		17

### Second Semester

ENG 126	Advanced Composition: Scientific and Technical Communications .....	3
	Social & Behavioral Sciences Elective ....	3
CHM 123	General Chemistry II .....	5
GEO 122	Historical Geology .....	4
	Humanities & Fine Arts Elective .....	3
		18

### Third Semester

CMM 121	Fundamentals of Speech .....	3
MTH 146	Calculus and Analytic Geometry II .....	4
PHY 123	Physics for Science and Engineering I ....	5
	Humanities & Fine Arts Elective .....	3
	Social & Behavioral Sciences Elective ....	3
		18



## Associate in Arts / Associate in Science / Associate in Engineering Science

### Fourth Semester

MTH 246	Calculus and Analytic Geometry III .....	4
PHY 124	Physics for Science and Engineering II ....	5
	Humanities & Fine Arts Elective .....	3
	Social & Behavioral Sciences Elective ....	3
	Physical & Life Science Elective .....	4

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For the Humanities and Fine Arts electives, at least one course must be selected from Humanities and one from Fine Arts.

Students will also need an international education course (see page 66.)

Note: Some students may require pre-calculus course work. As a result "First Semester" in this program may not correspond to a student's first semester in college.

For more information on this course of study students may contact either the division office listed or either of the following full-time faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Ron Riepe	B131	(847) 543-2491	<a href="mailto:riep@clcollinois.edu">riep@clcollinois.edu</a>
Xiaoming Zhai	A250	(847) 543-2504	<a href="mailto:xzhai@clcollinois.edu">xzhai@clcollinois.edu</a>

## HISTORY

### (Associate in Arts)

#### Plan 13AB

**Social Science Division, Room A244, (847) 543-2047**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

### First Semester

ENG 121	English Composition I .....	3
HST 121	History of Western Civilization I .....	3
HUM 121	Introduction to Humanities I .....	3
PSC 121	American National Politics .....	3
	Humanities & Fine Arts Elective .....	3

15

### Second Semester

ENG 122	English Composition II .....	3
HST 122	History of Western Civilization II .....	3
ANT 221	Cultural Anthropology .....	3
MTH 141	Quantitative Literacy .....	3
	Humanities & Fine Arts Elective .....	3

15

### Third Semester

CMM 121	Fundamentals of Speech .....	3
HST 221	U.S. History to 1876 .....	3
ECO 221	Principles of Macroeconomics .....	3
BIO 120	Environmental Biology <i>or</i>	
BIO 121	General Biology I .....	4
	General Elective .....	3

16

### Fourth Semester

HST 222	U.S. History 1876 to Present .....	3
PHI 121	Introduction to Philosophy .....	3
GEG 121	Physical Geography .....	3
ENG 226	Modern English Literature .....	3
	General Elective .....	3

15

The BA degree at many 4-year institutions requires two years of foreign language at the college level. If you had two years of a foreign language in high school, you need only one more year of advanced study at CLC. Students who have completed 4 years of foreign language at the high school level need not take any additional foreign language.

Math requirements vary at 4-year institutions

For the Humanities and Fine Arts electives, at least one course must be selected from Humanities and one from Fine Arts.

For more information about this course of study, students may contact either the division office listed or any of the following full-time faculty.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Gregory Gordon	D119	(847) 543-2945	<a href="mailto:ggordon@clcollinois.edu">ggordon@clcollinois.edu</a>
David Groeninger	A253	(847) 543-2540	<a href="mailto:dgroeninger@clcollinois.edu">dgroeninger@clcollinois.edu</a>
Septimus Paul	A153	(847) 543-2936	<a href="mailto:septimus@clcollinois.edu">septimus@clcollinois.edu</a>
Phyllis Soybel	A153	(847) 543-2543	<a href="mailto:psoybel@clcollinois.edu">psoybel@clcollinois.edu</a>

## HUMANITIES

(Associate in Arts)

### Plan 13AB

**Humanities Division, Room B237, (847) 543-2040**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

#### First Semester

ENG 121	English Composition I .....	3
HUM 121	Introduction to Humanities I .....	3
HUM 125	Introduction to the Fine Arts <i>or</i>	
MUS 124	Introduction to Music .....	3
HST 121	History of Western Civilization I .....	3
	Mathematics Elective .....	3
		<b>15</b>

#### Second Semester

ENG 122	English Composition II .....	3
HUM 122	Introduction to Humanities II .....	3
	Social & Behavioral Sciences Elective ....	3
	Physical & Life Science Elective <sup>1</sup> .....	3
	General Elective .....	5
		<b>17</b>

#### Third Semester

CMM 121	Fundamentals of Speech .....	3
ENG 228	World Literature .....	3
HUM 128	Introduction to Mid-Eastern Civilizations .....	3
PHI 121	Introduction to Philosophy .....	3
ART 240	History of Art I .....	3
	Physical & Life Sciences (lab) Elective <sup>1</sup> ..	4
		<b>19</b>

#### Fourth Semester

ART 241	History of Art II .....	3
ANT 221	Cultural Anthropology <i>or</i> Social & Behavioral Sciences Elective ....	3
PHI 123	Philosophy of Religion .....	3
THE 121	Introduction to Theatre <i>or</i>	
HUM 126	Introduction to Performing Arts .....	3
	English Elective .....	3
		<b>15</b>

<sup>1</sup> One physical science, one life science, one must include a lab.

For more information about this course of study, students may contact either the division office listed or any of the following full-time faculty.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Penne Devery	B265	(847) 543-2561	<a href="mailto:pdevery@clcollinois.edu">pdevery@clcollinois.edu</a>
Patrick Gonder	D108	(847) 543-2555	<a href="mailto:pgonder@clcollinois.edu">pgonder@clcollinois.edu</a>
Leslie Hopkins	B263	(847) 543-2961	<a href="mailto:lhopkins@clcollinois.edu">lhopkins@clcollinois.edu</a>
Nick Schevera	A249	(847) 543-2561	<a href="mailto:nschevera@clcollinois.edu">nschevera@clcollinois.edu</a>
Rebecca Thall	B262	(847) 543-2559	<a href="mailto:bthall@clcollinois.edu">bthall@clcollinois.edu</a>
Jackie Trimier	L229	(847) 543-2665	<a href="mailto:jtrimier@clcollinois.edu">jtrimier@clcollinois.edu</a>

## INTERNATIONAL STUDIES

(Associate in Arts)

### Plan 13AB

**Educational Affairs, Room C206, (847) 543-2418**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

#### First Semester

PHI 123	Philosophy of Religion .....	3
ENG 121	English Composition I .....	3
PSC 121	American National Politics .....	3
	Fine Arts Elective* .....	3
	Foreign Language Elective** .....	4
GEG 123	World Regional Geography <i>or</i>	
HST 126	History of Contemporary Non-Western Civilization <i>or</i>	
HST 127	History of Chinese Culture & Society .....	3
		<b>16</b>

#### Second Semester

ENG 122	English Composition II <i>or</i>	
ENG 126	Advanced Composition: Scientific & Technical Communications .....	3
PSC 221	Comparative Political Systems .....	3
CMM 121	Fundamentals of Speech .....	3
	Foreign Language Elective** .....	4
	Humanities Elective*** .....	3
		<b>16</b>

#### Third Semester

ECO 221	Principles of Macroeconomics .....	3
MTH 141	Quantitative Literacy .....	3
	Physical & Life Science (Lab) Elective ..	4
	Elective**** .....	3
		<b>13</b>

**Fourth Semester**

PSC	222	International Politics .....	3
ENG	246	Latin American Writers <i>or</i>	
HUM	128	Introduction to Mid-Eastern Civilizations .....	3
ECO	225	Comparative Economic Systems .....	3
		Physical & Life Science (non-lab) Elective .....	3
		Elective**** .....	3
			<b>15</b>

**Electives**

**\* Fine Arts**

ART	240	History of Art .....	3
ART	241	History of Art II .....	3
ART	242	History of Art III .....	3
HUM	121	Introduction to Humanities I .....	3
HUM	122	Introduction to Humanities II .....	3

**\*\*\* Humanities**

ENG	228	World Literature .....	3
ENG	244	Mythology & Fairy Tales .....	3
ENG	247	International Women Writers .....	3
PHI	123	Philosophy of Religion .....	3
PHI	125	Introduction to Ethics .....	3

**\*\* Foreign Languages**

The equivalent of eight hours of credit in Foreign Language which includes the 4th course in any French, Spanish, German, Italian, Arabic, Japanese, Russian or Chinese.

**\*\*\*\* Suggested Electives**

ANT	121	Introduction to Anthropology .....	3
ANT	221	Cultural Anthropology .....	3
BUS	121	Introduction to Business .....	3
BUS	270	Introduction to International Business .....	3
ENG	128	Linguistics and Society .....	3
GEG	122	Cultural Geography .....	3
GEG	223	Latin American Geography .....	3
HST	121	History of Western Civilization I .....	3
HST	122	History of Western Civilization II .....	3
CMM	127	Intercultural Communications .....	3
HUM	124	International and Regional Studies in Humanities .....	1-4
SSI	124	International Studies in Social Science .....	1-3

**MATHEMATICS**

(Associate in Science)

**Plan 11AB**

**Engineering, Mathematics and Physical Science Division  
Room B162, (847) 543-2044**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AS, students should select from the general education requirements outlined on pages 54-56. All course prerequisites must be met.

For those transferring to NIU, SIU and the University of Illinois a strong foreign language component is also required.

**First Semester**

MTH	145	Calculus and Analytic Geometry I .....	5
BIO	121	General Biology I .....	4
ENG	121	English Composition I .....	3
PHI	122	Logic .....	3
			<b>15</b>

**Second Semester**

MTH	146	Calculus and Analytic Geometry II .....	4
MCS	140	Computer Programming I <i>or</i>	
MCS	141	Computer Science I .....	3-4
ENG	122	English Composition II <i>or</i>	
ENG	126	Advance Composition: Scientific and Technical Communication .....	3
		Social & Behavioral Sciences Elective ....	3
		Humanities & Fine Arts Elective <sup>1</sup> .....	3
			<b>16-17</b>

**Third Semester**

MTH	246	Calculus and Analytic Geometry III .....	4
MTH	227	Ordinary Differential Equations .....	3
PHY	123	Physics for Science & Engineering I .....	5
		Social & Behavioral Sciences Elective ....	3
			<b>15</b>

**Fourth Semester**

CMM 121	Fundamentals of Speech .....	3
MCS 142	Computer Programming II.....	3
MTH 225	Linear Algebra <i>or</i>	
MTH 244	Discrete Mathematics.....	3
	Social & Behavioral Sciences Elective ....	3
	Humanities & Fine Arts Elective <sup>1,2</sup> .....	3
		15

<sup>1</sup> At least one course must be a Fine Arts course.  
<sup>2</sup> One course must be an International Studies/Multicultural Education requirement.

Note: Some students may require pre-calculus course work. As a result "First Semester" in this program may not correspond to a student's first semester in college. Discussing your particular situation with a mathematics advisor is the best way to plan an appropriate program.

For more information on this course of study students may contact either the division office listed or any of the following full-time faculty members.

<b>Name</b>	<b>Office</b>	<b>Phone Number</b>	<b>E-mail Address</b>
Donna Carlson	B138	(847) 543-2900	<a href="mailto:donnacarlson@clcillinois.edu">donnacarlson@clcillinois.edu</a>
Natalia Casper	B135	(847) 543-2801	<a href="mailto:ncasper@clcillinois.edu">ncasper@clcillinois.edu</a>
Virginia Coil	B139	(847) 543-2639	<a href="mailto:vcoil@clcillinois.edu">vcoil@clcillinois.edu</a>
Anni Gossman	B136	(847) 543-2505	<a href="mailto:agossman@clcillinois.edu">agossman@clcillinois.edu</a>
Tracey Hoy	D114	(847) 543-2901	<a href="mailto:traceyhoy@clcillinois.edu">traceyhoy@clcillinois.edu</a>
Byron Hunter	B138	(847) 543-2910	<a href="mailto:bhunter@clcillinois.edu">bhunter@clcillinois.edu</a>
Marvin Johnson	B133	(847) 543-2744	<a href="mailto:mjohnson@clcillinois.edu">mjohnson@clcillinois.edu</a>
Scott Reed	B136	(847) 543-2909	<a href="mailto:reed@clcillinois.edu">reed@clcillinois.edu</a>
Kimberly Shryock-Boyke	B134	(847) 543-2924	<a href="mailto:kshyrock@clcillinois.edu">kshyrock@clcillinois.edu</a>
Mark Smith	D114	(847) 543-2906	<a href="mailto:msmith@clcillinois.edu">msmith@clcillinois.edu</a>
John Thomas	B137	(847) 543-2912	<a href="mailto:jthomas@clcillinois.edu">jthomas@clcillinois.edu</a>
Stewart Thornburgh	B133	(847) 543-2725	<a href="mailto:sthornburgh@clcillinois.edu">sthornburgh@clcillinois.edu</a>
Amy Trefzger	B135	(847) 543-2493	<a href="mailto:atrefzger@clcillinois.edu">atrefzger@clcillinois.edu</a>
May Xu	B139	(847) 543-2497	<a href="mailto:mxu@clcillinois.edu">mxu@clcillinois.edu</a>

**MUSIC**

**(Associate in Arts)**  
**Plan 13AB**  
**Humanities Division, Room B237, (847) 543-2040**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.



**Summer Session**

MUS 127	Fundamentals of Music <sup>1</sup> .....	2
	Social & Behavioral Sciences Elective ....	3
		5

**First Semester**

MUS 128	Theory of Music I .....	4
MUS 145	Piano Class <i>or</i>	
MUS 143	Applied Music Piano I <i>or</i>	
MUS 144	Applied Music Jazz Piano .....	1
MUS 141	Applied Music-Voice I <i>or</i>	
MUS 143	Applied Music Piano I <i>or</i>	
MUS 160-188	Applied Music (various instruments) ....	1-2
MUS 120	Vocal Ensembles <i>or</i>	
MUS 123	Wind Ensemble <i>or</i>	
MUS 223	Jazz Ensemble .....	1
ENG 121	English Composition I .....	3
	Humanities & Fine Arts Elective (non-music) <sup>2</sup> .....	3
		13-14

**Second Semester**

MUS 129	Theory of Music II.....	4
MUS 143	Applied Music Piano I <i>or</i>	
MUS 144	Applied Music Jazz Piano .....	1
MUS 141	Applied Music-Voice I <i>or</i>	
MUS 143	Applied Music Piano I <i>or</i>	
MUS 160-188	Applied Music (various instruments) ....	1-2
MUS 120	Vocal Ensembles <i>or</i>	
MUS 123	Wind Ensemble <i>or</i>	
MUS 223	Jazz Ensemble .....	1
MUS 224	Music Literature .....	3
ENG 122	English Composition II <i>or</i>	
ENG 126	Advanced Composition: Scientific and Technical Communications .....	3
	Humanities & Fine Arts Elective .....	3

16-17

**Third Semester**

MUS 228	Theory of Music III .....	4
MUS 241	Applied Music-Voice II <i>or</i>	
MUS 243	Applied Music-Piano II <i>or</i>	
MUS 244	Applied Music-Jazz Piano II <i>or</i>	
MUS 260-288	Applied Music II (various instruments).....	1-2
MUS 120	Vocal Ensembles <i>or</i>	
MUS 123	Wind Ensemble <i>or</i>	
MUS 223	Jazz Ensemble .....	1
CMM 121	Fundamentals of Speech .....	3
	Physical & Life Science Elective .....	3-4
	Social & Behavioral Science Elective .....	3

15-17

**Fourth Semester**

MUS 229	Theory of Music IV .....	4
MUS 241	Applied Music-Voice II <i>or</i>	
MUS 243	Applied Music-Piano II <i>or</i>	
MUS 244	Applied Music-Jazz Piano II <i>or</i>	
MUS 260-288	Applied Music II (various instruments).....	1-2
MUS 120	Vocal Ensembles <i>or</i>	
MUS 123	Wind Ensemble <i>or</i>	
MUS 223	Jazz Ensemble .....	1
	Physical & Life Science Elective .....	3-4
	Social & Behavioral Science Elective .....	3
	Mathematics Elective .....	3

15-17

<sup>1</sup> Students unfamiliar with keys, scales, intervals, and basic rhythms should take MUS 127 prior to MUS 128. MUS 127 may be waived for those who are familiar with these elements of music.

<sup>2</sup> Add a Social & Behavioral Elective if not taken during the summer session.

The B.A. degree at many 4-year institutions requires two years of foreign language at the college level. If you had two years of a foreign language in high school, you need only one more year at CLC at an advanced level. Students who have completed 4 years of foreign language at the high school level need not take any additional foreign language.

For more information about this course of study, students may contact either the division office listed or any of the following full-time faculty.

Name            Office   Phone Number   E-mail Address

**Dance**  
Valerie Alpert    P218    (847) 543-2432    [valpert@clcillinois.edu](mailto:valpert@clcillinois.edu)

**PHILOSOPHY**

**(Associate in Arts)**

**Plan 13AB**

**Humanities Division, Room B237, (847) 543-2040**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

**First Semester**

ENG 121	English Composition I .....	3
PHI 121	Introduction to Philosophy .....	3
	Humanities & Fine Arts Elective (non-philosophy).....	3
	Social & Behavioral Sciences Elective ....	3
	Physical & Life Science Elective <sup>1</sup> .....	4
		<u>16</u>

**Second Semester**

ENG 122	English Composition II .....	3
CMM 121	Fundamentals of Speech .....	3
PHI 122	Logic .....	3
	Social & Behavioral Sciences Elective ....	3
	Humanities & Fine Arts Elective (non-Philosophy) .....	3
		<u>15</u>

**Third Semester**

PHI 125	Ethics .....	3
MTH 141	Quantitative Literacy .....	3
PSY 121	Introduction to Psychology <i>or</i>	
SOC 121	Introduction to Sociology .....	3
	Physical & Life Science Elective <sup>1</sup> .....	4
	Humanities & Fine Arts Elective .....	3
		<u>16</u>

## Associate in Arts / Associate in Science / Associate in Engineering Science

### Fourth Semester

PHI 123	Philosophy of Religion .....	3
ANT 121	Introduction to Anthropology <i>or</i>	
ANT 221	Cultural Anthropology .....	3
	Humanities & Fine Arts Elective .....	6
	General Elective .....	6
		18

<sup>1</sup> One physical science, one life science, one must include a lab.

For more information about this course of study, students may contact either the division office listed or any of the following full-time faculty.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Edwin George	B264	(847) 543-2560	<a href="mailto:edwgeo@clcollinois.edu">edwgeo@clcollinois.edu</a>
Leslie Hopkins	B263	(847) 543-2961	<a href="mailto:lhopkins@clcollinois.edu">lhopkins@clcollinois.edu</a>
Brian Smith	B262	(847) 543-2960	<a href="mailto:briansmith@clcollinois.edu">briansmith@clcollinois.edu</a>
Rebecca Thal	B261	(847) 543-2559	<a href="mailto:bthal@clcollinois.edu">bthal@clcollinois.edu</a>
Jackie Trimier	L229	(847) 543-2665	<a href="mailto:jtrimier@clcollinois.edu">jtrimier@clcollinois.edu</a>

## PHYSICS

(Associate in Science)

### Plan 11AB

**Engineering, Mathematics and Physical Science Division  
Room B162, (847) 543-2044**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AS students should select from the general education requirements outlined on pages 54-56. All course prerequisites must be met.

For those transferring to the University of Illinois a strong foreign language component is also required.

### First Semester

ENG 121	English Composition I .....	3
CHM 121	General Chemistry I .....	5
MTH 145	Calculus and Analytic Geometry I .....	5
	Social & Behavioral Sciences Elective <sup>2</sup> ....	3
		16

### Second Semester

ENG 122	English Composition II <i>or</i>	
ENG 126	Advanced Composition: Scientific and Technical Communications .....	3
CHM 123	General Chemistry II .....	5
MTH 146	Calculus and Analytic Geometry II .....	4
PHY 123	Physics for Science and Engineering I ....	5
		17

### Third Semester

CMM 121	Fundamentals of Speech .....	3
PHY 124	Physics for Science and Engineering II ....	5
MTH 246	Calculus and Analytic Geometry III .....	4
	Social & Behavioral Sciences Elective <sup>2</sup> ....	3
	Humanities & Fine Arts Elective <sup>1,2</sup> .....	3
		18

### Fourth Semester

MTH 227	Ordinary Differential Equations .....	3
MCS 140	Computer Programming I .....	3
	Social & Behavioral Sciences Elective <sup>2</sup> ....	3
	Humanities & Fine Arts Elective <sup>1,2</sup> .....	6
		15

### Summer Session

PHY 221	Physics for Science and Engineering III .....	4
		4

<sup>1</sup> At least one course must be a Fine Arts course. Students who need to complete IAI general education core requirements will also need a life science course.

<sup>2</sup> One course must be an International Studies/Multicultural Education requirement.

Note: Some students may require pre-calculus course work. As a result "First Semester" in this program may not correspond to a student's first semester in college.

For more information on this course of study students may contact either the division office listed or one of the following full-time faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
David Boyke	B132	(847) 543-2911	<a href="mailto:boyke@clcollinois.edu">boyke@clcollinois.edu</a>
Ana Mazilu	B132	(847) 543-2490	<a href="mailto:amazilu@clcollinois.edu">amazilu@clcollinois.edu</a>

## POLITICAL SCIENCE

(Associate in Arts)

### Plan 13AB

**Social Science Division, Room A244, (847) 543-2047**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

**First Semester**

ENG 121	English Composition I .....	3
PSC 121	American National Politics .....	3
CMM 121	Fundamentals of Speech .....	3
MTH 127	Finite Math <i>or</i>	
MTH 222	Elementary Statistics .....	3-4
	General Elective .....	3
		15-16

**Second Semester**

ENG 122	English Composition II .....	3
PSC 122	State and Local Politics .....	3
PHI 121	Introduction to Philosophy.....	3
BIO 120	Environmental Biology <i>or</i>	
BIO 121	General Biology I.....	4
ANT 221	Cultural Anthropology .....	3
		16

**Third Semester**

PSC 221	Comparative Political Systems .....	3
HST 121	History of Western Civilization I.....	3
GEG 121	Physical Geography .....	3
	Humanities & Fine Arts Elective .....	3
	General Elective .....	3
		15

**Fourth Semester**

PSC 222	United States Foreign Policy .....	3
HST 122	History of Western Civilization II .....	3
	Humanities & Fine Arts Elective.....	3
	General Electives .....	6
		15

For the Humanities and Fine Arts electives, at least one course must be selected from Humanities and one from Fine Arts.

Math requirements vary at 4-year institutions

The BA degree at many 4-year institutions requires two years of foreign language at the college level. If you had two years of a foreign language in high school you need only one more year of advanced study at CLC. Students who have completed 4 years of foreign language at the high school level need not take any additional foreign language.

For more information on this course of study students may contact either the division office listed or one of the following full-time faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Maureen Starshak	A237	(847) 543-2940	<a href="mailto:mkstarshak@clcollinois.edu">mkstarshak@clcollinois.edu</a>
Maria Pérez Laubhan	A154	(847) 543-2541	<a href="mailto:mlaubhan@clcollinois.edu">mlaubhan@clcollinois.edu</a>

**PRE-DENTISTRY, PRE-MEDICINE,  
PRE-OCCUPATIONAL THERAPY,  
PRE-PHARMACY or PRE-PHYSICAL  
THERAPY**

(Associate in Science)

**Plan 11AB**

**Biological and Health Sciences Division**

**Room C140, (847) 543-2042**

Students who intend to complete an A.S. degree at the College of Lake County and transfer to a Pre-Professional program at a four-year college or university should become familiar, as soon as possible, with the requirements of the institution to which they plan to transfer.

All students must complete the general education listed on pages 54-56 of this catalog in order to earn the A.S. degree. All course prerequisites must be met. *Students should choose electives only after consulting with a department advisor.*

For more information on these courses of study, students may contact the division office listed or the following faculty members:

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
<b>Pre-Dentistry</b>			
Anne Loeb	B235	(847) 543-2308	<a href="mailto:aloebchem@clcollinois.edu">aloebchem@clcollinois.edu</a>
<b>Pre-Medicine</b>			
Lakshmi Gollapudi	C144	(847) 543-2324	<a href="mailto:lgollapudi@clcollinois.edu">lgollapudi@clcollinois.edu</a>
<b>Pre-Pharmacy</b>			
Anne Loeb	B235	(847) 543-2308	<a href="mailto:aloebchem@clcollinois.edu">aloebchem@clcollinois.edu</a>

**PRE-VETERINARY MEDICINE**

(Associate in Arts)

**Plan 13AB**

**Biological and Health Sciences Division**

**Room C140, (847) 543-2042**

The following courses are *recommended* for students who intend to complete an AA degree at the College of Lake County and prepare for transfer to a pre-vet program at a four-year institution. All students must complete the general education requirements listed in the CLC catalog in order to earn the AA degree. All course prerequisites must be met. Pre-vet students should contact the Veterinary school they intend to enter and modify the course selection listed below as needed. However, the student must recognize when such changes preclude their obtaining a degree at CLC and decide if this is in their best interest.

**First Semester**

BIO 121	General Biology I.....	4
CHM 121	General Chemistry .....	5
ENG 121	English Composition I .....	3
	Humanities & Fine Arts	
	Elective (Humanities) .....	3
	Social & Behavioral Sciences Elective ....	3
		<b>18</b>

**Second Semester**

BIO 122	General Biology II .....	4
CHM 123	General Chemistry II .....	5
ENG 122	English Composition II' <i>or</i>	
ENG 126	Advanced Composition <sup>1</sup> .....	3
MTH 222	Elementary Statistics .....	4
		<b>16</b>

**Summer Session**

	Social & Behavioral Sciences Elective ....	3
		<b>3</b>

**Third Semester**

PHY 121	General Physics .....	5
CHM 125	Elementary Organic Chemistry .....	5
CMM 121	Fundamentals of Speech .....	3
	Humanities & Fine Arts Elective	
	(Fine Arts).....	3
		<b>16</b>

**Fourth Semester**

BIO 221	General Zoology <sup>2</sup> .....	4
CHM 224	Biochemistry .....	3
PHY 122	General Physics II .....	5
	Humanities & Fine Arts Elective <sup>1</sup> .....	3
	Social & Behavioral Sciences Elective <sup>1</sup> ....	3
		<b>18</b>

Also include one course in International/Multicultural Education, which must be taken from the list on page 66. If chosen carefully, this course may also be used to meet a Social & Behavioral Sciences or Humanities/Fine Arts requirement.

<sup>1</sup>Not required by U of I, College of Veterinary Medicine, but meets CLC's AA degree general education requirements.

<sup>2</sup>Strongly *recommended*. Required by University of Wisconsin, School of Veterinary Medicine. Not required by U of I, College of Veterinary Medicine.

For more information on this course of study, students should contact the division office listed or Kelly Cartwright. Faculty are available during scheduled office hours to advise students about program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Kelly Cartwright	C146	(847) 543-2792	<a href="mailto:kcartwright@clcillinois.edu">kcartwright@clcillinois.edu</a>

**PSYCHOLOGY**

(Associate in Arts)

**Plan 13AB**

**Social Science Division, Room A244, (847) 543-2047**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

**First Semester**

ENG 121	English Composition I .....	3
BIO 121	General Biology I.....	4
PSY 121	Introduction to Psychology .....	3
	Humanities & Fine Arts Elective .....	3
	General Elective.....	3
		<b>16</b>

**Second Semester**

ENG 122	English Composition II .....	3
BIO 122	General Biology II .....	4
HST 121	History of Western Civilization I.....	3
PSY 222	Child Growth and Development .....	3
	General Elective .....	3
		<b>16</b>

**Third Semester**

CMM 121	Fundamentals of Speech .....	3
PSC 121	American National Politics .....	3
MTH 127	Finite Math <i>or</i>	
MTH 222	Elementary Statistics .....	3-4
PSY 223	Abnormal Psychology .....	3
	Humanities & Fine Arts Elective .....	3
		15-16

**Fourth Semester**

ANT 221	Cultural Anthropology .....	3
PSY 225	Social Psychology .....	3
	Humanities & Fine Arts Elective .....	3
	Physical & Life Science Elective .....	3
	General Elective .....	3
		15

The BA degree at many 4-year institutions requires two years of foreign language at the college level. If you had two years of a foreign language in high school, you need only one more year of advanced study at CLC. Students who have completed 4 years of foreign language at the high school level need not take any additional foreign language.

For the Humanities and Fine Arts electives, at least one course must be selected from Humanities and one from Fine Arts

Math requirements vary at 4-year institutions

Faculty who teach in this subject area are available during scheduled office hours to advise students about their program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Mario Benassi	A253	(847) 543-2930	<a href="mailto:benassi@clcollinois.edu">benassi@clcollinois.edu</a>
Joan Kerr	A155	(847) 543-2545	<a href="mailto:jkerr@clcollinois.edu">jkerr@clcollinois.edu</a>
Diane Krumm	A254	(847) 543-2544	<a href="mailto:dkrumm@clcollinois.edu">dkrumm@clcollinois.edu</a>
Shari Larson	A255	(847) 543-2938	<a href="mailto:slarson@clcollinois.edu">slarson@clcollinois.edu</a>
Karen Owens	A155	(847) 543-2934	<a href="mailto:kowens@clcollinois.edu">kowens@clcollinois.edu</a>
Suzanne Valentine-French	A154	(847) 543-2935	<a href="mailto:svfrench@clcollinois.edu">svfrench@clcollinois.edu</a>

**SOCIAL WORK**

**(Associate in Arts)**

**Plan 13AB**

**Social Science Division, Room A244, (847) 543-2047**

The following courses are recommended for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA or AS, students should select from the general education requirements outlined on pages 49-56. All course prerequisites must be met.

**First Semester**

ENG 121	English Composition I .....	3
SWK 121	Introduction to Social Work .....	3
PSY 121	Introduction to Psychology .....	3
PHI 121	Introduction to Philosophy .....	3
MTH 222	Elementary Statistics .....	4
		16

**Second Semester**

ENG 122	English Composition II .....	3
SOC 121	Introduction to Sociology .....	3
GEG 121	Physical Geography or other physical science .....	3
CMM 121	Fundamentals of Speech .....	3
PHI 125	Introduction to Ethics or other Humanities .....	3
		15

**Third Semester**

BIO 121	General Biology <i>or</i>	
BIO 120	Environmental Biology .....	4
HUS 118	Professional Helping Skills .....	3
ANT 221	Cultural Anthropology .....	3
	Fine Arts Elective .....	3
PSC 121	American National Politics .....	3
		16

**Fourth Semester**

PSY 223	Abnormal Psychology .....	3
SOC 225	Race, Class, & Gender .....	3
SOC 224	Sociology of the Family .....	3
HUX 170	Introduction to Substance Abuse .....	3
	General Elective .....	3
		15

For more information on this course of study, students may contact either the division office listed or the following faculty member.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Janet Mason	D122	(847) 543-2536	<a href="mailto:jmason@clcollinois.edu">jmason@clcollinois.edu</a>

## SOCIOLOGY

(Associate in Arts)

### Plan 13AB

Social Science Division, Room A244, (847) 543-2047

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

#### First Semester

ENG 121	English Composition I .....	3
SOC 121	Introduction to Sociology .....	3
HST 121	History of Western Civilization I .....	3
MTH 127	Finite Math <i>or</i>	
MTH 222	Elementary Statistics .....	3-4
	General Elective .....	3
		<hr/> 15-16

#### Second Semester

ENG 122	English Composition II .....	3
SOC 222	Social Problems .....	3
ECO 221	Principles of Macroeconomics .....	3
BIO 120	Environmental Biology <i>or</i>	
BIO 121	General Biology I.....	4
	Humanities & Fine Arts Elective .....	3
		<hr/> 16

#### Third Semester

CMM 121	Fundamentals of Speech .....	3
SOC 224	Sociology of the Family .....	3
PSY 121	Introduction to Psychology .....	3
GEG 121	Physical Geography .....	3
	General Elective .....	3
		<hr/> 15

#### Fourth Semester

ANT 121	Introduction to Anthropology <i>or</i>	
ANT 221	Cultural Anthropology .....	3
PSC 121	American National Politics .....	3
PHI 121	Introduction to Philosophy.....	3
	Humanities & Fine Arts Elective .....	3
	General Elective .....	3
		<hr/> 15

Math requirements vary at 4-year institutions

For the Humanities and Fine Arts electives, at least one course must be selected from Humanities and one from Fine Arts.

The BA degree at many 4-year institutions requires two years of foreign language at the college level. If you had two years of a foreign language in high school you need only one more year of advanced study at CLC. Students who have completed 4 years of foreign language at the high school level need not take any additional foreign language.

Faculty who teach in this subject area are available during scheduled office hours to advise students about their program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Madelaine			
Gerbaulet-Vanasse	A252	(847) 543-2939	<a href="mailto:mgerbaulet-vanasse@clcollinois.edu">mgerbaulet-vanasse@clcollinois.edu</a>
Jerry Hanson	A250	(847) 543-2931	<a href="mailto:jhanson@clcollinois.edu">jhanson@clcollinois.edu</a>
Fredric Hutchinson	D120	(847) 543-2932	<a href="mailto:fhutchinson@clcollinois.edu">fhutchinson@clcollinois.edu</a>
Mike Kuchera	A255	(847) 543-2933	<a href="mailto:mkuchera@clcollinois.edu">mkuchera@clcollinois.edu</a>
John Tenuto	A250	(847) 543-2537	<a href="mailto:jtenuto@clcollinois.edu">jtenuto@clcollinois.edu</a>
Li-hua Yu	D119	(847) 543-2741	<a href="mailto:lyu@clcollinois.edu">lyu@clcollinois.edu</a>

## SPANISH

(Associate in Arts)

### Plan 13AB

Humanities Division, Room B237, (847) 543-2040

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

#### First Semester

SPA 121	Beginning Conversational Spanish I <i>or</i>	
SPA 221	Intermediate Spanish I <sup>2</sup> .....	4
ENG 121	English Composition I .....	3
	Social & Behavioral Sciences Elective ....	3
	Humanities & Fine Arts Elective* .....	3
	(non-Spanish)	
	General Elective .....	3
		<hr/> 16

#### Second Semester

SPA 122	Beginning Conversational Spanish II <i>or</i>	
SPA 222	Intermediate Spanish II <sup>1</sup> .....	4
ENG 122	English Composition II <i>or</i>	
ENG 126	Advanced Composition <sup>2</sup> .....	3
	Social & Behavioral Sciences Elective ....	3
	Mathematics Elective .....	3
	Humanities & Fine Arts Elective .....	3
		<hr/> 16

## Associate in Arts / Associate in Science / Associate in Engineering Science

### Third Semester

SPA 221	Intermediate Spanish I <i>or</i>	
SPA 223	Spanish Civilization I <sup>1</sup> .....	3-4
CMM 121	Fundamentals of Speech .....	3
	Physical & Life Sciences (lab) Elective <sup>5</sup> ..	4
	General Elective .....	3
	General Elective .....	2
		15-16

### Fourth Semester

SPA 222	Intermediate Spanish II <i>or</i>	
SPA 224	Spanish Civilization II <sup>2</sup> .....	3-4
	Social & Behavioral Sciences Elective ....	3
	Physical & Life Science Elective <sup>5</sup> .....	3
	General Elective .....	3
	General Elective .....	3
		15-16

<sup>1</sup> Students with at least two recent years of successful high school Spanish should enroll in SPA 221-222.

<sup>2</sup> Students wishing to coordinate Spanish with Business or other technical study should opt for ENG 126.

<sup>3</sup> Students who have completed the intermediate courses should enroll in SPA 223-224 (Spanish Civilization).

<sup>4</sup> One course must be a Fine Arts course.

<sup>5</sup> One course must be a physical science, one life science, one must be a lab.

For more information about this course of study, students may contact either the division office listed or any of the following full-time faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Maria Manterola	B247	(847) 543-2291	<a href="mailto:mmanterola@clcollinois.edu">mmanterola@clcollinois.edu</a>
Theresa Ruiz-Velasco	B247	(847) 543-2579	<a href="mailto:truizvelasco@clcollinois.edu">truizvelasco@clcollinois.edu</a>
Raymond Salazar	A235	(847) 543-2363	<a href="mailto:raisal@clcollinois.edu">raisal@clcollinois.edu</a>
Juan Carlos Domecq	B261	(847) 543-2628	<a href="mailto:jdomecq@clcollinois.edu">jdomecq@clcollinois.edu</a>

## THEATRE

(Associate in Arts)

**Plan 13AB**

**Humanities Division, Room B237, (847) 543-2040**

The following courses are *recommended* for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students should meet with a counselor or advisor to determine courses at CLC which will also meet the transfer requirements.

To complete an AA students should select from the general education requirements outlined on pages 49-53. All course prerequisites must be met.

### First Semester

ENG 121	English Composition I .....	3
CMM 121	Fundamentals of Speech .....	3
THE 125	Principles of Acting I <i>or</i>	
THE 126	Stagecraft .....	3
	Social & Behavioral Sciences Elective ....	3
	Physical & Life Sciences (lab) Elective <sup>1</sup> ..	4
		16

### Second Semester

ENG 122	English Composition II .....	3
THE 225	Acting II <i>or</i>	
THE 222	Stage Makeup <i>or</i>	
THE 226	Lighting for Stage and Studio .....	3
	Physical & Life Sciences Elective <sup>1</sup> .....	3
	Social & Behavioral Sciences Elective ....	3
	General Elective .....	3
		15

### Third Semester

THE 228	Directing I <i>or</i>	
THE 121	Introduction to Theatre .....	3
ENG 228	World Literature .....	3
	Mathematics Elective .....	3
	Social & Behavioral Sciences Elective ....	3
	General Elective .....	3
		15

### Fourth Semester

CMM 124	Oral Interpretation <i>or</i>	
THE 129	Theatre Practicum .....	3
ENG 227	Introduction to Shakespeare .....	3
PHI 121	Introduction to Philosophy .....	3
HUM 123	Introduction to Film <i>or</i>	
THE 126	Stagecraft .....	3
MUS 121	Voice Class .....	1
PED	(Dance or Fencing) .....	1
		14

<sup>1</sup> One course must be a physical science, one life science, one must be a lab.

For more information about this course of study, students may contact either the division office listed or any of the following full-time faculty.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Thomas Mitchell	P123b	(847) 543-2967	<a href="mailto:tmitchell@clcollinois.edu">tmitchell@clcollinois.edu</a>

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**PROGRAMS OF STUDY**

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**ASSOCIATE IN APPLIED  
SCIENCE DEGREE AND  
CAREER CERTIFICATES**

**ACCOUNTING**

(Associate in Applied Science)

**Plan 22AA**

**Business Division, Room A143, (847) 543-2041**

Students are prepared to compile and analyze business records and prepare financial reports such as income statements, balance sheets, costs studies, tax returns, and other internal reports.

**General Education Requirements**

**Communications**

CMM 111	Communication Skills <i>or</i>	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 128	Interviewing Practices .....	3

**English**

ENG 121	English Composition and	
AOS 111	Business Communications <i>or</i>	
ENG 126	Advanced Comp: Scientific and Technical Communication .....	6

**Social Science**

PSY 122	Psychology in Business and Industry <i>or</i>	
PSY 121	Introduction to Psychology .....	3
ECO 110	Economics for Business and Industry <i>or</i>	
ECO 221	Principles of Macroeconomics <i>and</i>	
ECO 222	Principles of Microeconomics* .....	3

**Humanities and Fine Arts**

	Elective (recommended PHI 122 or PHI 125) .....	3
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**Mathematics**

AOS 122	Business Mathematics <i>or</i>	
MTH 222	Elementary Statistics <i>or</i>	
MTH 127	Finite Mathematics <i>or</i>	
MTH 224	Calculus for Business and Social Science .....	3-4 21-25

**Accounting Cores Courses Required:**

ACC 121	Financial Accounting <i>or</i>	
ACC 112	Accounting Procedures <i>and</i>	
ACC 113	Financial Statement Analysis .....	4-6
ACC 122	Managerial Accounting .....	4
ACC 212	Federal Tax Accounting .....	3
ACC 214	Cost Accounting I .....	3
ACC 221	Intermediate Accounting I .....	4
ACC 222	Intermediate Accounting II .....	4

**Business Courses Required:**

CIS 120	Introduction to Computers <i>or</i>	
CIS 119	Introduction to Office Software .....	3
BUS 221	Business Law I .....	3
BUS 121	Introduction to Business .....	3

\* Students taking ECO 221 and ECO 222 to meet the social science requirement are required to complete only five hours of business electives.

**Business Electives (8 Hours)\*:**

ACC 114	Payroll Accounting .....	3
ACC 171	Accounting Information Computer Systems .....	2
ACC 213	Federal Tax Accounting II .....	3
ACC 270	Advanced Accounting .....	4
ACC 271	Auditing .....	3
BUS 222	Business Law .....	3
MTH 122	College Algebra <i>or</i>	
MTH 222	Elementary Statistics <i>or</i>	
MTH 127	Finite Mathematics <i>or</i>	
MTH 224	Calculus for Business and Social Science .....	3-4
CIS	Electives .....	1-7
BUS	Electives .....	3-6
AOS	Electives .....	1-4
EWE 220	Cooperative Work Experience I .....	4

Minimum hours to complete A.A.S 60

**Complete CPA Requirements at CLC**  
 Effective in the year 2001, to apply for the CPA examination a candidate must have 150 semester hours of acceptable college level education, including at least a bachelor's degree. The total hours must include an accounting concentration or equivalent as determined by the Illinois Board of Examiners. 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 the subjects of financial accounting, auditing, taxation, and management 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 management accounting.
4. Earned baccalaureate degree with at least 24 hours in accounting with at least one course each in financial accounting, auditing, taxation, and management accounting and at least 24 hours in business courses (other than accounting courses).

At CLC it is recommended that the total accumulation of hours include ACC 121, 122, 212, 213, 214, 221, 222, 223, 270, 271, BUS 221, 222, CIS 120 and MTH 222. Additional information and application can be obtained from the Illinois Board of Examiners, University of Illinois, 505 E. Green Street, Room 216, Champaign, Illinois 61820-5723 or telephone (217) 333-1565. Illinois Board of Examiners Web site: [www.illinois.cpa-exam.com](http://www.illinois.cpa-exam.com) (ICPA Society home page: [www.icpas.org](http://www.icpas.org))

## Associate in Applied Science and Career Certificates

### CMA Certificate

The CMA (Certified Management Accountant) is a national program with no state affiliates. The candidate must have senior standing at an accredited college or university, or must hold a baccalaureate degree, in any field, or have passed the U.S. CPA examination. Anyone who has passed the U.S. CPA examination is given credit for part 2 of the CMA examination. Recommended courses at CLC include ACC 121, 122, 214, 221, 222, 223, 271, BUS 111, 221, 222, 223, CIS 120, ECO 221, 222, 223, MTH 222, 224, and HUM 127. Additional information can be obtained by phoning ICMA, (800) 638-4427.

### 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 communications skills, and basic accounting knowledge. Most positions require a minimum typing speed and microcomputer software application skills.

ACC 112	Accounting Procedures I .....	3
ACC 113	Financial Statement Analysis .....	3
ACC 114	Payroll Accounting .....	3
ACC 171	Accounting Information and Computer Systems .....	2
ACC 172	Capstone Experience - Accounting Clerk Certificate .....	1
AOS 111	Business Communications .....	3
AOS 122	Business Mathematics .....	3
CIS 119	Introduction to Office Software .....	3
Total Hours		21

### Professional Accounting Certificate

(Certificate)  
Plan 22AB

This certificate covers the body of knowledge necessary to prepare for the Certified Public Accounting Exam. It is designed for individuals who already possess a bachelor's degree. Please refer to the boxed information preceding this certificate for specific requirements. It is strongly recommended that you take a CPA Review course prior to sitting for the exam.

ACC 221	Intermediate Accounting I .....	4
ACC 222	Intermediate Accounting II .....	4
ACC 212	Federal Tax Accounting I .....	3
ACC 213	Federal Tax Accounting II .....	3
ACC 214	Cost Accounting .....	3

ACC 270	Advanced Accounting .....	4
ACC 271	Auditing .....	3
BUS 221	Business Law I .....	3
BUS 222	Business Law II .....	3
Total Hours		30

\* If students have taken a year of accounting principles at the undergraduate level, the prerequisite for ACC 221, ACC 212, and ACC 214 will have been met. Contact one of the accounting faculty below for a prerequisite waiver. It is recommended that students have computer courses and statistics background as well.

For more information on this course of study students may contact either the division office listed or one of the following faculty members.

Name	Office	Phone Number	E-mail Address
Jay Chittal	A138	(847) 543-2520	<a href="mailto:jchittal@clcillinois.edu">jchittal@clcillinois.edu</a>
Scott Steinkamp	A134	(847) 543-2524	<a href="mailto:ssteinkamp@clcillinois.edu">ssteinkamp@clcillinois.edu</a>
Mary Zenner	A138	(847) 543-2522	<a href="mailto:mzenner@clcillinois.edu">mzenner@clcillinois.edu</a>

### ADMINISTRATIVE OFFICE SYSTEMS ADMINISTRATIVE ASSISTANT

(Associate in Applied Science)  
Plan 22SM

Business Division, Room A143, (847) 543-2041

The Administrative Office Systems degree provides a blend of office automation skills including word processing and related computer applications leading to administrative assistant positions in an office environment. In addition, students establish essential skills in business communication and general business skills and practices.

#### First Semester

AOS 112	Automated Office Technologies .....	3
AOS 128	Intermediate Keyboarding .....	4
AOS 172	Business English .....	3
AOS 122	Business Mathematics .....	3
BUS 121	Introduction to Business .....	3
Total Hours		16

#### Second Semester

AOS 111	Business Communications .....	3
AOS 223	Advanced Keyboarding <i>or</i> AOS Elective* .....	3
AOS 119	Records Management .....	2
AOS 113	Comprehensive Word Processing .....	3
CIS 111	Comprehensive Spreadsheet .....	3
Total Hours		14

## Associate in Applied Science and Career Certificates

\* A student who earns a final grade of "B" or better in AOS 128, Intermediate Keyboarding AND demonstrates 50 words a minute on a 5-minute timing with 5 or fewer errors may substitute a 3 credit hour AOS elective for AOS 223.

### Third Semester

AOS 118	Advanced Word Processing/ Desktop Publishing .....	2
AOS 117	Machine Transcription .....	3
AOS 215	Presentation Software .....	2
ACC 112	Accounting Procedures I <i>or</i>	
ACC 121	Financial Accounting .....	3-4
ENG 121	English Composition I .....	3
CMM 111	Communication Skills <i>or</i>	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 128	Interviewing Practices .....	3
		16-17

### Fourth Semester

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 .....	3
	Humanities & Fine Arts Elective .....	3
	AOS Elective <i>or</i>	
	Social & Behavior Sciences Elective .....	3
		15
	Total Hours	61-62

### Elective Courses

AOS 175	Keyboarding Speed & Accuracy Building .....	2
AOS 299	Selected Topics in Office Automation .....	1-4
CIS 230	Comprehensive Database .....	3
HIT 111	Medical Terminology .....	3
	ACC Elective .....	1-3
	BUS Elective .....	1-3
	CIS Elective .....	1-3
	EWE Elective .....	2-4

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

## General Office

### (Certificate) • Plan 22SP

The General Office certificate prepares individuals for entry-level office positions with such titles 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.

AOS 170	Computer Keyboarding I .....	2
AOS 171	Computer Keyboarding II .....	2
AOS 128	Intermediate Keyboarding .....	4
AOS 113	Comprehensive Word Processing .....	3
AOS 112	Automated Office Technologies .....	3
AOS 172	Business English <i>or</i>	
AOS 111	Business Communication.....	3
	Total Hours	17

## Office Assistant

### (Certificate) • Plan 22SO

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

### Required Courses

AOS 112	Automated Office Technologies .....	3
AOS 128	Intermediate Keyboarding .....	4
AOS 113	Comprehensive Word Processing .....	3
AOS 118	Advanced Word Processing/ Desktop Publishing .....	2
AOS 215	Presentation Software .....	2
AOS 172	Business English .....	3
AOS 111	Business Communications .....	3
AOS 117	Machine Transcription .....	3
AOS 119	Records Management.....	2
CIS 111	Comprehensive Spreadsheet .....	3
	Electives .....	2
		30

### Elective Courses

AOS 122	Business Mathematics .....	3
AOS 175	Keyboarding Speed and Accuracy Building .....	2
AOS 214	Administrative Office Procedures .....	3
AOS 216	Integrated Office Projects .....	3
AOS 223	Advanced Keyboarding .....	3
AOS 299	Selected Topics in Office Automation .....	1-3
CIS 291	CoreIDRAW .....	3
ACC 112	Accounting Procedures <i>or</i>	
ACC 121	Financial Accounting .....	3-4

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

## Associate in Applied Science and Career Certificates

### Information Processing Specialist

(Certificate) • Plan 22SN

The Information Processing Specialist certificate prepares individuals for positions using current industry software. Students complete word processing, presentation software, and spreadsheet courses and then select an additional computer-based course in order to specialize their skills.

#### Required Courses

AOS	113	Comprehensive Word Processing .....	3
AOS	118	Advanced Word Processing/ Desktop Publishing .....	2
AOS	215	Presentation Software .....	2
CIS	111	Comprehensive Spreadsheets .....	3
		Elective .....	2
Total Hours			12

#### Elective Courses

AOS	112	Automated Office Technologies .....	3
AOS	216	Integrated Office Projects .....	3
AOS	299	Selected Topics in Office Automation .....	1-3
BUS	114	Training Practices & Principles .....	3
CIS	120	Introduction to Computers .....	3
CIS	230	Comprehensive Database .....	3
CIS	231	Managing Microcomputer System .....	3
CIS	290	Desktop Publishing .....	3
CIS	291	CorelDRAW .....	3
CIS	292	Advanced Desktop Publishing .....	2
CIS	299	Selected Topics in Computer Information Systems .....	3
COM	116	Developing Web Pages .....	3

AOS students may choose other elective courses with consent of an AOS advisor based on their specific needs.

For more information on these AOS courses of study, students may contact either the division office listed or one of the following faculty members.

Name	Office	Phone Number	E-mail Address
Yvonne Block	A134	(847) 543-2819	<a href="mailto:yblock@clcillinois.edu">yblock@clcillinois.edu</a>
Lauren LoPresti	A133	(847) 543-2925	<a href="mailto:lopresti@clcillinois.edu">lopresti@clcillinois.edu</a>
Lynn Steffen	A133	(847) 543-2817	<a href="mailto:steffen@clcillinois.edu">steffen@clcillinois.edu</a>

### ARCHITECTURAL TECHNOLOGY

(Associate in Applied Science)

Plan 24CB

Engineering, Math, Physical Sciences Division

Room B162, (847) 543-2044

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.

#### First Semester

ARC	121	Architectural Graphics .....	3
BCT	113	Construction Materials .....	3
MTH	117	Technical Mathematics I <i>or</i> higher level Math .....	3-4
PHY	121	General Physics <i>or</i> higher Physics .....	5
CAD	110	CAD-CAM Concepts .....	3

17-18

#### Second Semester

ARC	170	Architectural Design .....	3
CAD	117	Introduction to AutoCAD .....	3
EGR	115	Applied Mechanics Statics .....	3
ENG	120	Technical Composition I <i>or</i>	
ENG	121	English Composition I .....	3
MTH	118	Technical Mathematics II <i>or</i> higher level Math .....	3-4

15-16

#### Third Semester

ARC	171	Architectural Working Drawings .....	3
CAD	214	Architectural Applications .....	3
		Social & Behavioral Sciences Elective <i>or</i>	
ECO	110	Economics for Business & Industry .....	3
EGR	215	Mechanics of Materials for Technology ..	3
		Social & Behavioral Sciences Elective <i>or</i>	
PSY	122	Psychology in Business & Industry .....	3
CMM	111	<i>or</i> CMM 121 <i>or</i> CMM 122 <i>or</i> CMM 123 <i>or</i> CMM 128 .....	3

18

#### Fourth Semester

ARC	216	Architectural Illustration .....	3
ARC	271	Architectural Working Drawings II .....	3
ARC	228	History of Architecture .....	3
BCT	118	Mechanical & Electrical Equipment .....	3
BCT	119	Specifications & Building Codes .....	3
CAD	179	CAD Animation & Rendering .....	3

18

Total Hours 68-70

Select any of the following math sequences:

- MTH 122 & 123
- MTH 145 & MCS 140.

### Architectural Technology

(Certificate) • Plan 24CF

Thirty-four semester hours credit must be completed for the certificate in Architectural Technology with courses selected from the following; other subjects may be taken as part of the program, with advisor approval.

ARC 121	Architectural Graphics .....	3
ARC 170	Architectural Design .....	3
ARC 171	Architectural Working Drawings .....	3
ARC 215	Architectural Planning .....	3
ARC 216	Architectural Illustration .....	3
ARC 228	History of Architecture .....	3
ARC 271	Architectural Working Drawings II .....	3
BCT 113	Construction Materials .....	3
BCT 117	Construction Methods .....	3
BCT 118	Mechanical & Electrical Equipment .....	3
BCT 119	Specifications & Building Codes .....	3
BCT 214	Construction Estimating .....	3
CAD 117	Introduction to AutoCAD .....	3
CAD 177	Site Planning & Drafting .....	3
CAD 179	CAD Animation & Rendering .....	3
CAD 214	Architectural Applications .....	3
CAD 217	AutoCAD II .....	3
CIV 111	Surveying I .....	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....	3
IMR 115	Carpentry I .....	3
MTH 117	Technical Mathematics I <i>or</i>	
	higher level Math .....	3-4
	<b>Total Hours</b>	<b>34</b>

For more information on this course of study students may contact the division office.

### AUTOMOTIVE COLLISION REPAIR

(Certificate) • Plans 24AE, 24AK, 24AL, 24AM  
 Engineering, Math, Physical Science Division  
 Room B162, (847) 543-2044

This program prepares the student for employment in the auto body repair and painting industry.

#### 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
ABR 118	Automotive Plastic Repair .....	2
	<b>Total Hours</b>	<b>15</b>

### Automotive Damage Estimator

(Certificate) • Plan 24AK

ABR 110	Non-Structural Repair I .....	5
ABR 235	Estimating and Shop Procedures .....	3
ABR 230	Structural Repair I .....	3
ABR 130	Automotive Refinishing I .....	3
	<b>Total Hours</b>	<b>14</b>

### 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
	<b>Total Hours</b>	<b>16</b>



### Automotive Structural Repair Technician

(Certificate) • Plan 24AL

ABR 230	Structural Repair I .....	3
ABR 231	Structural Repair II .....	5
ABR 115	Automotive Welding .....	3
ABR 137	Mechanical and Electrical Systems I .....	5
ABR 138	Mechanical and Electrical Systems II .....	5
	<b>Total Hours</b>	<b>21</b>

For more information on this course of study students may contact the division office.

**AUTOMOTIVE TECHNOLOGY**

(Associate in Applied Science)

Plans 24AH, 24AI, 24AJ

(Certificates)

Plans 24AV, 24AX, 24AY

Engineering, Math, Physical Science Division

Room B162, (847) 543-2044

The Automotive Technology programs offer courses leading to three Associate in Applied Science degrees: Under Hood Technician, Transmission 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 three certificate programs have been designed to give students an opportunity to specialize and concentrate their efforts in related areas of automotive repair. The program is certified in all eight areas by ASEs National Automotive Technicians Education Foundation, Inc. (NATEF). This is the highest level of certification that ASE awards.

**Under Hood Technician**

(A.A.S. Specialty & Certificate) Codes 24AH & 24AV

Phase I

AUT 171	Engine Rebuilding .....	5
AUT 172	Auto Electrical I.....	5
AUT 170	General Automotive <i>or</i>	
AUT 174	Applied Mechanics (Auto).....	4
MTH 114	Applied Mathematics I	
	<i>or</i> higher level Math .....	3
		17

Phase II

AUT 173	Auto Electrical II .....	5
AUT 215	Automotive Management.....	3
AUT 271	Fuel Systems I .....	5
AUT 275	Air Conditioning & Heating .....	5
		18

Phase III

AUT 272	Fuel Systems II .....	5
AUT 276	Engine Systems Diagnosis.....	5
AUT 277	Advanced Specialization .....	5
		15

Total Hours for Certificate 50

For A.A.S. Degree add the following:

\* general education courses listed on this page.\*

Total Hours for A.A.S. degree 65

**Transmission Technician**

(A.A.S. & Certificate) Codes 24AI & 24AX

Completion of these programs prepares the student for employment in diagnosing, testing, and repairing transmissions and drivelines.

Phase I

AUT 171	Engine Rebuilding .....	5
AUT 172	Auto Electrical I.....	5
AUT 170	General Automotive <i>or</i>	
AUT 174	Applied Mechanics (Auto).....	4
AUT 273	Transmissions I .....	5
		19

Phase II

AUT 215	Automotive Management.....	3
AUT 274	Transmissions II.....	5
AUT 277	Advanced Specialization .....	5
MTH 114	Applied Mathematics I	
	<i>or</i> higher level Math .....	3
		16

Total Hours for Certificate 35

Automotive courses:

AUT 175	Braking Systems .....	5
AUT 176	Suspension & Alignment .....	5
AUT	Elective <i>or</i> EWE 220 .....	3-5
		13-15

For A.A.S. Degree add the following:

\* general education courses listed below.\*

Total Hours for A.A.S. degree 63-65

**Under The Car Technician**

(A.A.S. & Certificate) Codes 24AJ & 24AY

These programs prepare the student for employment in diagnosing, testing, and repairing brakes, suspension and alignment, and driveline systems.

Phase I

AUT 170	General Automotive <i>or</i>	
AUT 174	Applied Mechanics (Auto).....	4
AUT 175	Braking Systems .....	5
AUT 273	Transmissions I .....	5
MTH 114	Applied Mathematics I	
	<i>or</i> higher level Math .....	3
		17

Phase II

AUT 176	Suspension & Alignment .....	5
AUT 215	Automotive Management.....	3
AUT 277	Advanced Specialization .....	5
		13

Total Hours for Certificate 30

**Automotive courses:**

AUT 171	Engine Rebuilding .....	5
AUT 172	Auto Electrical I.....	5
AUT 274	Transmissions II.....	5
AUT	Elective <i>or</i> EWE 220 .....	3-5
		18-20

For A.A.S. Degree add the following:

- general education courses listed below.\*

Total Hours for A.A.S. degree 63-65

<b>* General Education Courses</b> .....	15
Communication Arts .....	6
Choose either: ENG 120 or ENG 121 and CMM 111 or CMM 121	
Social & Behavioral Science .....	6
Suggestions: SOC 121, ECO 110, PSY 121, PSY 122, PSC 121, HST 221	
Humanities & Fine Arts .....	3

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**Automotive Air Conditioning and Heating Specialist**

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**(Certificate)**  
**Code 24UG**

This Mini Certificate would prepare a student for initial employment diagnosing and repairing automotive heating and air conditioning systems.

AUT 170	General Automotive <i>or</i>	
AUT 174	Applied Mechanics (Auto).....	4
AUT 172	Auto Electrical I.....	5
AUT 275	Air Conditioning and Heating .....	5
		Total Hours 14

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**Automotive Electrical Specialist**

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**(Certificate)**  
**Code 24UH**

This Mini Certificate would prepare a student for employment diagnosing and repairing chassis and body electrical and electronic circuits.

AUT 170	General Automotive <i>or</i>	
AUT 174	Applied Mechanics (Auto).....	4
AUT 172	Auto Electrical I.....	5
AUT 173	Auto Electrical II .....	5
		Total Hours 14

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**Automotive Fuel Systems Specialist**

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**(Certificate)**  
**Code 24UI**

This Mini Certificate would prepare a student for initial employment diagnosing and repairing automotive engine fuel system problems.

AUT 170	General Automotive <i>or</i>	
AUT 174	Applied Mechanics (Auto).....	4
AUT 271	Fuel Systems I .....	5
AUT 272	Fuel Systems II .....	5
		Total Hours 14

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**Automotive Service Specialist**

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**(Certificate)**  
**Code 24UJ**

This Mini Certificate would prepare a student for initial employment in the automotive service industry.

AUT 170	General Automotive <i>or</i>	
AUT 174	Applied Mechanics (Auto).....	4
AUT 171	Engine Rebuilding .....	5
AUT 172	Auto Electrical I.....	5
		Total Hours 14

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**Automotive Brakes and Suspension Specialist**

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**(Certificate)**  
**Code 24UK**

This Mini Certificate would prepare a student for initial employment diagnosing and repairing automotive braking, suspension and alignment problems.

AUT 170	General Automotive <i>or</i>	
AUT 174	Applied Mechanics (Auto).....	4
AUT 175	Braking Systems .....	5
AUT 176	Suspension and Alignment.....	5
		Total Hours 14

## Associate in Applied Science and Career Certificates

### Automotive Oil Change Specialist

(Certificate)  
Code 24UL

This Mini Certificate would prepare a student for employment in the oil change business.

AUT 170	General Automotive <i>or</i>	
AUT 174	Applied Mechanics (Auto).....	4
AUT 171	Engine Rebuilding .....	5
AUT 273	Transmissions I .....	5
Total Hours		14

### Automotive Transmission Specialist

(Certificate)  
Code 24UM

This Mini Certificate would prepare a student for initial employment diagnosing and repairing manual transmission, automatic transmission and driveline problems.

AUT 170	General Automotive <i>or</i>	
AUT 174	Applied Mechanics (Auto).....	4
AUT 273	Transmissions I .....	5
AUT 274	Transmissions II .....	5
Total Hours		14

For more information on this course of study students may contact either the division office listed or one of the following faculty members.

Name	Office	Phone Number	E-mail Address
Rod Cummins	1201	(847) 543-2508	<a href="mailto:fdlstks@clcollinois.edu">fdlstks@clcollinois.edu</a>
Lance David	1201	(847) 543-2509	<a href="mailto:ldavid@clcollinois.edu">ldavid@clcollinois.edu</a>
Chris Hadfield	1201	(847) 543-2501	<a href="mailto:chadfield@clcollinois.edu">chadfield@clcollinois.edu</a>

### BUILDING CONSTRUCTION TECHNOLOGY

(Associate in Applied Science)

Plan 24BA

Engineering, Math, Physical Science Division  
Room B162, (847) 543-2044

This program prepares the graduate for employment in the building construction and the building industry.

#### First Semester

MTH 117	Technical Mathematics I <i>or</i> higher level Math .....	3-4
BCT 111	Construction Layout.....	3
BCT 112	Construction Blueprint Reading .....	3
BCT 113	Construction Materials .....	3
ENG 121	English Composition I <i>or</i>	
ENG 120	Technical Composition I .....	3

15-16

#### Second Semester

BCT 117	Construction Methods .....	3
BCT 118	Mechanical and Electrical Equipment .....	3
ARC 121	Architectural Graphics <i>or</i>	
ARC 171	Architectural Working Drawings .....	3
BCT 119	Specifications and Building Codes .....	3
CMM 111	Communications Skills <i>or</i>	
CMM 121	Fundamentals of Speech .....	3

15

#### Third Semester

BCT 213	Construction Law & Documents .....	3
BCT 214	Construction Estimating.....	3
CIV 112	Heavy Construction Methods <i>or</i>	
BCT 212	Principles of Heavy Construction .....	3
ECO 110	Economics for Business & Industry .....	3
	Construction Elective* .....	3

15

#### Fourth Semester

CIV 214	Civil Materials and Testing .....	3
BCT 211	Job Scheduling and Control.....	3
BCT 215	Construction Management .....	3
PSY 122	Psychology in Business & Industry .....	3
	Construction Elective* .....	3
	Humanities & Fine Arts Elective .....	3

18

Total Hours 63-64

#### \*Construction Electives:

ARC 121	Architectural Graphics .....	3
ARC 171	Architectural Working Drawings .....	3
CAD 110	CAD/CAM Concepts .....	3
CAD 117	Introduction to AutoCAD .....	3
CAD 177	Site Planning & Drafting .....	3
CIV 111	Surveying I.....	3
CIV 113	Construction Inspection .....	3
CIV 211	Surveying II .....	3
CIV 213	Subdivision Planning & Design.....	3
CIS 119	Introduction to Office Software .....	3
EWE 220	Cooperative Work Experience I.....	1-4
IMR 113	Plumbing & Pipefitting I .....	3
IMR 114	Plumbing & Pipefitting II .....	3
IMR 115	Carpentry I .....	3
IMR 116	Carpentry II .....	3
ISE 110	Industrial Electricity.....	2

\* and other technical electives as approved by advisor.

**Building Construction Technology**

**(Certificate) • Plan 24BF**

Twenty-one semester-hours must be completed for the certificate in Building Construction Technology. Courses are to be selected from the following list. Substitutions may be made with division approval.

ARC	121	Architectural Graphics .....	3
ARC	171	Architectural Working Drawings .....	3
BCT	118	Mechanical and Electrical Equipment .....	3
BCT	119	Specifications & Building Codes .....	3
BCT	213	Construction Law & Documents .....	3
BCT	214	Construction Estimating .....	3
BCT	117	Construction Methods .....	3
BCT	111	Construction Layout .....	3
BCT	112	Construction Blueprint Reading .....	3
BCT	113	Construction Materials .....	3
BCT	211	Job Scheduling and Control .....	3
BCT	215	Construction Management .....	3
CAD	117	Introduction to AutoCAD .....	3
CIV	111	Surveying I .....	3
CIV	113	Construction Inspection .....	3
MTH	117	Technical Mathematics I or higher level Math .....	3
PSY	122	Psychology in Business and Industry .....	3
<b>Total Hours</b>			<b>21</b>

For more information on this course of study students may contact the division office or the following faculty member.

<b>Name</b>	<b>Office</b>	<b>Phone Number</b>	<b>E-mail Address</b>
Rob Twardock	A220a	(847) 543-2903	<a href="mailto:rtwardock@clcollinois.edu">rtwardock@clcollinois.edu</a>

**BUSINESS MANAGEMENT**

**(Associate in Applied Science)  
Plans 22BC, 22BD**

**Business Division,  
Room A143, (847) 543-2041**

This program is designed for students interested in entry and middle level management positions. It uses the umbrella concept with a common core of 39 semester hours. Associate in Applied Science degree and/or certificate options are available in Marketing and Supervision.

**General Education Requirements**

**English Communications:**

ENG	121	English Composition I .....	3
AOS	111	Business Communications <i>or</i>	
ENG	126	Advanced Composition: Scientific and Technical Communications .....	3

**Social Science**

ECO	110	Economics for Business and Industry <i>or</i>	
ECO	221	Principles of Macroeconomics .....	3
PSY	122	Psychology in Business and Industry <i>or</i>	
PSY	121	Introduction to Psychology .....	3

**Communications**

CMM	128	Interviewing Practices <i>or</i>	
CMM	121	Fundamentals of Speech <i>or</i>	
CMM	111	Communications Skills .....	3

**Mathematics**

AOS	122	Business Mathematics <i>or</i>	
MTH	122	College Algebra <i>or</i> higher level math .....	3-4

**Humanities**

Elective .....	3
(HUM 127 or PHI 125 recommended)	
21-22	

**General Business Required Courses**

BUS	121	Introduction to Business .....	3
ACC	112	Accounting Procedures I <i>or</i>	
ACC	121	Financial Accounting .....	3-4
BUS	111	Fundamentals of Finance <i>or</i>	
ACC	122	Managerial Accounting .....	3-4
BUS	221	Business Law I .....	3
BUS	223	Principles of Management .....	3
CIS	120	Introduction to Computers <i>or</i>	
CIS	119	Introduction to Office Software .....	3
			18-20

Specialty Option: Supervision or Marketing .....	15	
Electives: (ACC, BUS, CIS, MCD, MFG, CMM, EWE 220 - 4-credit limit) .....	6	
<b>Total Hours</b>		<b>60-63</b>

**Specialty Options - Marketing (Plan 22BC)**

BUS	122	Principles of Marketing .....	3
BUS	212	Industrial Marketing .....	3
BUS	214	Advertising .....	3
BUS	213	Principles of Salesmanship .....	3
BUS	299	Selected Topics in Business <i>or</i>	
BUS	114	Training Principles and Practices .....	3
			15

**Specialty Options - Supervision (Plan 22BD)**

BUS	115	Elements of Supervision .....	3
BUS	113	Human Resource Management .....	3
BUS	114	Training Principles and Practices .....	3
BUS	215	Production and Inventory Control .....	3
BUS	219	Small Business Management .....	3
			15

## Associate in Applied Science and Career Certificates

### Small Business Management Certificate

The small business management certificate provides the student with the skills and knowledge needed to start and operate a small business.

#### Small Business Management • Plan 22BE

BUS	121	Introduction to Business .....	3
BUS	219	Small Business Management .....	3
BUS	122	Principles of Marketing .....	3
ACC	112	Accounting Procedures <i>or</i>	
ACC	121	Financial Accounting .....	3-4
BUS	290	Business Plan Development.....	3
		Electives .....	6
Total Hours			21-22

#### Electives

BUS	113	Human Resource Management .....	3
BUS	115	Elements of Supervision .....	3
BUS	213	Principles of Salesmanship .....	3
BUS	214	Advertising .....	3
BUS	221	Business Law I.....	3
BUS	223	Principles of Management .....	3
CIS	119	Introduction to Office Software .....	3
AOS	122	Business Mathematics .....	3
Any career course(s) approved by the Business Management Coordinator .....			3-6

### Marketing Certificate

The Marketing certificate prepares students for marketing positions such as sales, promotion, and marketing management.

#### Marketing • Plan 22BG

BUS	121	Introduction to Business .....	3
BUS	122	Principles of Marketing .....	3
BUS	212	Industrial Marketing .....	3
BUS	213	Principles of Salesmanship .....	3
BUS	214	Advertising .....	3
BUS	299	Selected Topics in Business <i>or</i>	
BUS	114	Training Principles and Practices.....	3
BUS	223	Principles of Management .....	3
Total Hours			21

### Supervision Certificate

The Supervision certificate prepare students for various areas of management which require skills in communications, interpersonal relations, and general business operations.

#### Supervision • Plan 22BK

BUS	115	Elements of Supervision .....	3
BUS	121	Introduction to Business .....	3
BUS	113	Human Resource Management .....	3
BUS	114	Training Principles and Practices.....	3
BUS	215	Production and Inventory Control .....	3
BUS	219	Small Business Management .....	3
BUS	223	Principles of Management .....	3
Total Hours			21

For more information on this course of study students may contact either the division office listed or one of the following faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
James Paradiso	A139	(847) 543-2525	<a href="mailto:paradiso@clcollinois.edu">paradiso@clcollinois.edu</a>
Litsa Press	A137	(847) 543-2921	<a href="mailto:litsapress@clcollinois.edu">litsapress@clcollinois.edu</a>
Ellen Rubert	A137	(847) 543-2821	<a href="mailto:erubert@clcollinois.edu">erubert@clcollinois.edu</a>

### CAD-DRAFTING TECHNOLOGY

(Associate in Applied Science)

Plans 24DC, 24DJ, 24DR

Engineering, Math, Physical Science Division  
Room B162, (847) 543-2044

This program prepares students for employment and advancement in Computer Aided Drafting (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 must choose an area of concentration within the program and follow the courses listed for that option. The options include General, Architectural, Mechanical, and Graphics Animation & Presentation. See Architectural, Civil, Drafting, Mechanical, and Multimedia programs for related fields of study.

## Associate in Applied Science and Career Certificates

### Architectural/Civil Option (Plan 24DR)

First Semester			
CAD	110	CAD/CAM Concepts .....	3
ARC	121	Architectural Graphics I.....	3
MTH	115	Applied Mathematics II .....	3
CIV	111	Surveying <i>or</i>	
BCT	111	Construction Layout.....	3
BCT	113	Construction Materials .....	3
			15

Second Semester			
BCT	117	Construction Methods .....	3
ARC	170	Architectural Design .....	3
CAD	117	Introduction to AutoCAD .....	3
ENG	120	Technical Composition I <i>or</i>	
ENG	121	English Composition I .....	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
			15

Third Semester			
CAD	179	CAD Animation and Rendering I .....	3
CAD	177	Site Plan and Drafting .....	3
ARC	171	Architectural Working Drawings .....	3
CAD	214	Architectural Applications .....	3
ARC	228	History of Architecture <i>or</i>	
		Humanities & Fine Arts Elective .....	3
ECO	110	Economics for Business and Industry <i>or</i>	
ECO	221	Principles of Macroeconomics <i>or</i>	
PSC	122	State & Local Politics <i>or</i>	
		Social & Behavioral Sciences Elective ....	3
			18

Fourth Semester			
CAD	217	AutoCAD II .....	3
ARC	271	Architectural Working Drawings II .....	3
CIV	213	Subdivision Planning .....	3
ARC	216	Architectural Illustrations .....	3
CAD	279	CAD Animation and Rendering II.....	3
CAD	273	CAD Specialization <i>or</i>	
EWE	220	Cooperative Work Experience II .....	3
			18

Total Hours 66

### Mechanical Option (24DC)

First Semester			
CAD	110	CAD/CAM Concepts .....	3
DFT	111	Drafting I .....	5
MTH	115	Applied Mathematics II .....	3
MTT	112	Machining Principles .....	3
			14

Second Semester			
CAD	117	Introduction to AutoCAD .....	3
DFT	112	Drafting II .....	5
MCD	111	Manufacturing Processes .....	3
CAD	173	Introduction to SolidWorks .....	3
ECO	110	Economics for Business and Industry <i>or</i>	
ECO	221	Principles of Macroeconomics <i>or</i>	
PSC	122	State & Local Politics <i>or</i>	
		Social & Behavioral Sciences Elective ....	3
			17

Third Semester			
CNC	218	CAD/CAM Numerical Control .....	3
ENG	120	Technical Composition I <i>or</i>	
ENG	121	English Composition I .....	3
CAD	175	AutoCAD 3D .....	3
CAD	176	Introduction to ProEngineer.....	3
		Humanities & Fine Arts Elective.....	3
			15

Fourth Semester			
CAD	217	AutoCAD II .....	3
CAD	211	Mechanical Detailing .....	3
CAD	276	ProEngineer II <i>or</i>	
		Technical Elective* .....	3
MCD	214	Mechanical Design and Drafting .....	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
			15

Total Hours 61

**Graphics Animation, and Presentation Option (24DJ)**

First Semester

CAD 110	CAD/CAM Concepts .....	3
DFT 111	Drafting I .....	5
ARC 121	Architectural Graphics .....	3
COM 111	Introduction to Multimedia .....	3
		<b>14</b>

Second Semester

CAD 117	Introduction to AutoCAD .....	3
DFT 112	Drafting II .....	5
MTH 115	Applied Mathematics II .....	3
CAD 179	CAD Animation and Rendering .....	3
ART 222	Introduction to Computer Art .....	3
		<b>17</b>

Third Semester

CAD 214	Architectural Applications <i>or</i> Technical Elective* .....	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....	3
CAD 279	CAD Animation and Rendering II .....	3
ART 263	2D Computer Animation .....	3
	Social & Behavioral Sciences Elective .....	3
		<b>15</b>

Fourth Semester

CAD 175	AutoCAD 3D <i>or</i>	
CAD 173	Introduction to SolidWorks <i>or</i>	
CAD 176	Introduction to ProEngineer .....	3
ARC 216	Architectural Illustration <i>or</i>	
CAD 217	AutoCAD .....	3
ARC 228	History of Architecture <i>or</i> Humanities & 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
CAD 273	CAD Specialization <i>or</i>	
EWE 220	Cooperative Work Experience I .....	3
		<b>15</b>

Total Hours 61

**\* Technical Electives**

ARC 121	Architectural Graphics .....	3
CAD 110	CAD-CAM Concepts .....	3
CAD 117	Introduction to AutoCAD .....	3
CAD 119	Introduction to Microstation .....	3
CAD 173	Introduction to SolidWorks .....	3
CAD 175	AutoCAD 3D .....	3
CAD 176	Introduction to PRO-Engineer .....	3
CAD 177	Site Plan Drafting .....	3
CAD 179	CAD Animation & Rendering .....	3
CAD 217	AutoCAD II .....	3
CAD 276	PRO-Engineer II .....	3
CAD 279	CD Animation & Rendering II .....	3
ELT 111	Electronic Drafting .....	2
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....	3
EGR 122	Description Geometry .....	3
EWE 220	Cooperative Work Experience I. ....	2-4
MCD 111	Manufacturing Processes .....	3
MCD 112	Basic Metallurgy I .....	3
MCD 114	Dimensional Metrology .....	3
MCD 214	Mechanical Design & Drafting .....	3
MTH 115	Applied Math or higher .....	3-4
MTT 111	Machine Shop I .....	3
MTT 112	Machining Principles .....	3

\* Technical Electives: A broad choice of technical electives is available including EWE 220-Cooperative Work Experience. See an advisor in the CAD department for approval of electives.

**Graphics, Animation and Presentations**

**(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.

CAD 110	CAD/CAM Concepts .....	3
DFT 111	Drafting I <i>or</i>	
ARC 121	Architectural Graphics .....	3-5
CAD 117	Introduction to AutoCAD .....	3
CAD 179	Animation and Rendering I .....	3
COM 111	Introduction to Multimedia .....	3
ART 222	Introduction to Computer Art .....	3
ART 263	2D Computer Animation .....	3
CAD 279	Animation and Rendering II .....	3

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**CAD - Drafting Technology - General**

(Certificate)

Plan 24DM

CAD 110	CAD/CAM Concepts .....	3
DFT 111	Drafting I .....	5
MTH 115	Applied Mathematics II .....	3
MCD 111	Manufacturing Processes .....	3
CIV 111	Surveying I.....	3
ELT 111	Electronic Drafting.....	2
CAD 117	Introduction to AutoCAD .....	3
ARC 121	Architectural Graphics .....	3
CAD 179	CAD Animation and Rendering.....	3
CAD 177	Site Plan and Drafting .....	3

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**CAD - Drafting Technology - 3D Parametric Certificate**

(Certificate)

Plan 24DP

CAD 117	Introduction to AutoCAD .....	3
DFT 111	Drafting I .....	5
DFT 112	Drafting II .....	5
CAD 175	AutoCAD 3D .....	3
CAD 176	Introduction to ProEngineering .....	3
CAD 217	AutoCAD II .....	3
CAD 276	ProEngineer II .....	3
CAD 173	Introduction to SolidWords .....	3
CAD 211	Mechanical Detailing .....	3

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**CAD - Drafting Technology - Architectural Certificate**

(Certificate)

Plan 24DN

CAD 110	CAD-CAM Concepts .....	3
CAD 117	Introduction to AutoCAD .....	3
ARC 121	Architectural Graphics .....	3
CAD 217	AutoCAD II .....	3
CAD 179	Animation and Rendering I .....	3
CAD 214	Architectural Applications .....	3
ARC 216	Architectural Illustrations .....	3

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**CAD - Drafting Technology - AutoCAD Certificate**

(Certificate)

Plan 24DQ

CAD 110	CAD/CAM Concepts .....	3
CAD 117	Introduction to AutoCAD .....	3
DFT 111	Drafting I .....	5
DFT 112	Drafting II .....	5
CAD 217	AutoCAD II .....	3
CAD 175	AutoCAD 3D .....	3
CAD 211	Mechanical Detailing .....	3

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**CAD - Drafting Technology - Civil Certificate**

(Certificate)

Plan 24DO

CAD 110	CAD/CAM Concepts .....	3
CAD 117	Introduction to AutoCAD .....	3
ARC 121	Architectural Graphics .....	3
CIV 111	Surveying I <i>or</i> .....	3
BCT 111	Construction Layout.....	3
CAD 217	AutoCAD II .....	3
CAD 177	Site Plan and Drafting .....	3
CIV 213	Subdivision Planning and Design .....	3

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For more information on this course of study students may contact either the division office listed or one of the following faculty member.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Steve Dulmes	HST 150d	(847) 543-2330	<a href="mailto:sdulmes@clcollinois.edu">sdulmes@clcollinois.edu</a>
Tina Ye	HST 150b	(847) 543-2625	<a href="mailto:tye@clcollinois.edu">tye@clcollinois.edu</a>

**CHEMICAL TECHNOLOGY**

(Associate in Applied Science)

**Plan 21CA, 21CB**

**Biological & Health Sciences Division**

**Room C140, (847) 543-2042.**

Technicians normally work under the direction of graduate chemists or chemical engineers. They are employed in various phases of industry in chemical process development, product control, and research. A minimum of 60 semester hours must be completed for an A.A.S. degree in Chemical Technology.

**General Requirements for all students:**

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
	Social & Behavioral Sciences Electives ..	6
	Humanities & Fine Arts Elective .....	3
MTH 122	College Algebra <i>and</i>	
MTH 222	Elementary Statistics .....	8
		<b>23</b>

**Core Courses (required for both Chemical Technology degree options)**

CHM 121	General Chemistry I.....	5
CHM 123	General Chemistry II .....	5
CHM 125	Elementary Organic Chemistry <i>or</i>	
CHM 222	Organic Chemistry I <i>and</i>	
CHM 223	Organic Chemistry II .....	10
PED 228	First Aid* .....	2
		<b>22-27</b>

\* PED 228 is offered for .5 credit and for 2 credits. The 2-credit option is required to complete the Chemical Technology degree.

**Choose one of the following options:**

**Chem-Tech Option (Plan 21CA)**

PHY 121	General Physics I <i>and</i>	
PHY 122	General Physics II .....	10
	General Electives .....	7
		<b>17</b>

**Bio-Tech Option (Plan 21CB)**

BIO 121	General Biology I.....	4
BIO 124	Anatomy and Physiology .....	5
BIO 125	Introduction to Microbiology.....	4
	General Electives .....	2
		<b>15</b>

Total Hours for A.A.S 60-67

**Chemical Technology**

(Certificate) • Plan 21CF

CHM 121	General Chemistry I.....	5
CHM 123	General Chemistry II <i>or</i>	
CHM 125	Elementary Organic Chemistry .....	5
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....	3
MTH 117	Technical Mathematics I <i>or</i>	
MTH 122	College Algebra .....	3-4
PHY	Physics (Choose from PHY121 <i>or</i> PHY 123) .....	5
PED 228	First Aid* .....	2
	General Electives .....	4
	Social & Behavioral Sciences Elective ....	3
		<b>Total Hours 30</b>

For more information on this program, students may contact the division office listed or one of the following faculty members. Faculty are available during scheduled office hours to advise students about program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Darryl Johnson	B234	(847) 543-2877	<a href="mailto:dj@clcollinois.edu">dj@clcollinois.edu</a>
Anne Loeb	B235	(847) 543-2308	<a href="mailto:aloeb@clcollinois.edu">aloeb@clcollinois.edu</a>
Tara Simmons	B234	(847) 543-2309	<a href="mailto:tsimmons@clcollinois.edu">tsimmons@clcollinois.edu</a>
Mary Urban	B235	(847) 543-2876	<a href="mailto:murban@clcollinois.edu">murban@clcollinois.edu</a>

**CISCO NETWORKING**

(Certificate) Plan 24CI, 24CJ

**Engineering, Math, Physical Science Division**

**Room B162, (847) 543-2044**

**Cisco Networking**

This program is intended to prepare 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 at anytime. 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
		<b>Total Hours 12</b>

### Cisco Networking Professional

This program will prepare students to take the CCNP certification exam(s). CCNP certification indicates advanced knowledge of networks. A network professional can install, configure, and troubleshoot local and wide area networks for enterprise organizations.

CNA	211	Advanced Routing .....	3
CNA	212	Remote Access .....	3
CNA	213	Multilayer Switching .....	3
CNA	214	Internetwork Troubleshooting .....	3
Total Hours			12

For more information on this program, students may contact the division office listed or one of the following faculty members. Faculty are available during scheduled office hours to advise students about program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Greg Morris	A234	(847) 543-2905	<a href="mailto:gemorris@clcollinois.edu">gemorris@clcollinois.edu</a>

### CIVIL AND ENVIRONMENTAL TECHNOLOGY

(Associate in Applied Science)

**Plan 24VA**

**Engineering, Math, Physical Science Division**

**Room B162, (847) 543-2044**

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.

#### Core Courses

MTH	117	Technical Math I <i>and</i>	
MTH	118	Technical Math II <i>or</i>	
MTH	122*	College Algebra <i>and</i>	
MTH	123*	Trigonometry <i>or</i>	
MTH	144*	Pre-Calculus .....	5-7
PHY	121	General Physics I <i>or</i>	
PHY	123	Physics for Science and Engineering I* ..	5
ENG	121	English Composition* <i>or</i>	
ENG	120	Technical Composition .....	3
CMM	111	Communication Skills <i>or</i>	
CMM	121	Fundamentals of Speech* .....	3
ARC	228	History of Architecture* <i>or</i>	
		Humanities & Fine Arts Elective .....	3
EGR	121	Engineering Graphics w/ AutoCAD <i>or</i>	
ARC	121	Architectural Graphics w/ AutoCAD.....	3
CIV	111	Surveying I* .....	3
CIV	211	Surveying II* .....	3
GEG	240	Geographic Information Systems* .....	3

CIS	119	Introduction to Office Software .....	3
CAD	177	Site Plan Drafting.....	3
CIV	213	Subdivision Planning and Design .....	3
BCT	113	Construction Materials .....	3
BCT	117	Construction Methods .....	3
CIV	113	Construction Inspection .....	3
CIV	214	Civil Materials Testing.....	3
EGR	216	Statics and Mechanics of	
		Materials for Technology .....	5
		Technical Electives .....	6
Total			63-65

\* Courses that may transfer to Bachelors of Science in engineering or surveying.

#### Technical Electives (6 hours)

BCT	119	Specifications and Building Codes .....	3
BCT	211	Construction Scheduling .....	3
BCT	213	Construction Law and Documents.....	3
BCT	214	Construction Estimating.....	3
BCT	215	Construction Management .....	3
BIO	120	Environmental Biology .....	3
CAD	217	AutoCAD II .....	3
CIV	215	Special Problems .....	3
GEO	126	Geology of Illinois .....	3
GEO	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 &	
		Wastewater Analysis .....	3

### Civil Technology

(Certificate) • Plan 24VF

MTH	117	Technical Math I .....	3
BCT	113	Construction Materials .....	3
BCT	117	Construction Methods .....	3
CIS	119	Introduction to Office Software .....	3
CIV	111	Surveying I <i>or</i>	
BCT	111	Construction Layout.....	3
EGR	121	Engineering Graphics <i>or</i>	
ARC	121	Architectural Graphics .....	3
CIV	214	Civil Materials Testing.....	3
CIV	113	Construction Inspection .....	3
Total			24

For more information on this program, students may contact the division office listed or one of the following faculty member:

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Rob Twardock	A220a	(847) 543-2903	<a href="mailto:rtwardock@clcollinois.edu">rtwardock@clcollinois.edu</a>

## Associate in Applied Science and Career Certificates

### COMPUTER INFORMATION SYSTEMS

(Associate in Applied Science)

Plans 22CB, 22CR, 22CD, 22CJ, 22CL, 22CM

Business Division, Room A143, (847) 543-2041

The Computer Information Systems degree program provides six specialty options with a common core of general education, business and introductory computer courses. The title of each specialty option indicates the job title or function for which the graduate would be qualified.

The computer technology emphasis of this degree program is a Windows-based programming and software applications environment.

#### General Education Requirements

CMM 111	Communications Skills <i>or</i>	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 128	Interviewing Practices .....	3
ENG 121	English Composition I .....	3



PSY 122	Psychology in Business and Industry <i>or</i>	
PSY 121	Introduction to Psychology .....	3
MTH 122	College Algebra <i>or</i> higher Math <i>or</i>	
AOS 122	Business Mathematics .....	3-4
	Social & Behavioral Sciences Elective ....	3
	Humanities & Fine Arts Elective	
	(Recommended HUM 127, PHI 122, or PHI 125) .....	3
		18-19

#### Business Courses Required

BUS 121	Introduction to Business .....	3
ACC 112	Accounting Procedures I <i>or</i>	
ACC 121	Financial Accounting .....	3-4
ACC 113	Financial Statement Analysis <i>or</i>	
ACC 122	Managerial Accounting <i>or</i>	
BUS 111	Fundamentals of Finance .....	3-4
		9-11

#### CIS Courses Required

CIS 120	Introduction to Computers .....	3
CIS 110	Programming Concepts Using Visual Basic <i>or</i>	
CIS 113	Programming Concepts Using Java .....	3
		6

#### Specialty Option:

Web Programmer, Visual Basic Programmer, Microcomputer Applications, C++ Programmer, PC/LAN Support Specialist or Java Programmer .....	27
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Total Hours 60-63

#### Specialty Option - Web Programmer (22CJ)

CIS 112	Introduction to Local Area Network .....	3
CIS 170	Internet Programming for Business .....	3
CIS 171	Scripting Languages .....	3
CIS 230	Comprehensive Database .....	3
CIS 258	Systems Analysis .....	3
CIS 277	Database Concepts .....	3
CIS 278	Server Side Programming .....	3
CIS 279	Markup Language Programming .....	3
	CIS Electives .....	3
		27

#### Specialty Option - Visual Basic Programmer (22CL)

CIS 230	Comprehensive Database .....	3
CIS 210	Introduction to Visual Basic Programming .....	3
CIS 212	Objects and ActiveX Using Visual Basic	3
CIS 213	Enterprise Database Access Using Visual Basic .....	3
CIS 112	Introduction to Local Area Network .....	3
CIS 258	Systems Analysis .....	3
CIS 277	Database Concepts .....	3
	CIS Electives .....	6
		27

**Specialty Option - Microcomputer Applications (22CB)**

CIS	111	Comprehensive Spreadsheets.....	3
CIS	210	Introduction to Visual Basic Programming .....	3
CIS	230	Comprehensive Database .....	3
CIS	231	E-Commerce Implementation and Impact .....	3
AOS	113	Comprehensive Word Processing .....	3
CIS		Electives (Non-programming recommended) .....	12
			<u>27</u>

**Specialty Option - C++ Programmer (22CR)**

CIS	230	Comprehensive Database .....	3
CIS	216	Programming in C++ .....	3
CIS	217	Advanced C++ .....	3
CIS	218	Programming in Visual C++ .....	3
CIS	112	Introduction to Local Area Network .....	3
CIS	258	Systems Analysis .....	3
CIS	277	Database Concepts .....	3
		CIS Electives (CIS 279 recommended)....	6
			<u>27</u>

**Specialty Option - PC/LAN Support Specialist (22CD)**

CIS	112	Introduction to Local Area Network .....	3
CIS	115	PC Operating Systems .....	3
CIS	231	E-Commerce Implementation and Impact .....	3
CIS	237	Managing a Windows Network Environment .....	3
CIS	236	LAN Administration .....	3
ELT	151	PC Hardware Fundamentals .....	3
CIS		Electives (Non-programming recommended) .....	6
CIS		Elective <i>or</i> ELT 152 .....	3
			<u>27</u>

**Specialty Option - Java Programmer (22CM)**

CIS	170	Internet Programming for Business .....	3
CIS	230	Comprehensive Database .....	3
CIS	215	Object Oriented Programming Using Java.....	3
CIS	234	Visual Programming in Java .....	3
CIS	235	Enterprise Java Development .....	3
CIS	112	Introduction to Local Area Network .....	3
CIS	258	Systems Analysis .....	3
CIS	277	Database Concepts .....	3
		CIS Elective (CIS 279 recommended).....	3
			<u>27</u>

**Programming Electives**

CIS	171	Scripting Languages.....	3
CIS	210	Introduction to Visual Basic Programming .....	3
CIS	211	Introduction to C Programming .....	3
CIS	212	Objects and ActiveX Using Visual Basic .....	3

CIS	213	Enterprise Database Access Using Visual Basic .....	3
CIS	215	Object Oriented Programming Using Java.....	3
CIS	216	Programming in C ++ .....	3
CIS	217	Advanced C++ .....	3
CIS	218	Programming in Visual C ++.....	3
CIS	234	Visual Programming in Java .....	3
CIS	235	Enterprise Java Development .....	3
CIS	277	Database Concepts .....	3
CIS	278	Server Side Programming .....	3
CIS	279	Markup Language Programming .....	3
CIS	299	Selected Topics in Computer Information System .....	1-3

**Non-programming Electives**

CIS	111	Comprehensive Spreadsheets.....	3
CIS	112	Introduction to Local Area Networking....	3
CIS	115	PC Operating Systems .....	3
CIS	170	Internet Programming for Business .....	3
CIS	230	Comprehensive Database .....	3
CIS	231	E-Commerce Implementation and Impact .....	3
CIS	236	LAN Administration .....	3
CIS	237	Managing a Windows Network Environment .....	3
CIS	252	Linux System Administration .....	3
CIS	258	Systems Analysis .....	3
CIS	276	Operating Systems .....	3
CIS	277	Database Concepts .....	3
CIS	290	Desktop Publishing .....	3
CIS	291	CoreIDRAW .....	3
CIS	292	Advanced Desktop Publishing .....	2
CIS	299	Selected Topics in CIS .....	1-3
EWE	220	Educational Work Experience (Cooperative Education).....	1-3

**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.

CIS	210	Introduction to Visual Basic.....	3
CIS	212	Objects and ActiveX Using Visual Basic .....	3
CIS	213	Enterprise Database Access Using Visual Basic .....	3
CIS	277	Database Concepts .....	3
CIS	258	Systems Analysis .....	3

**Total Hours 15**

**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.

CIS	215	Object Oriented Programming in Java	....	3
CIS	234	Visual Programming in Java	.....	3
CIS	235	Enterprise Java Development	.....	3
CIS	277	Database Concepts	.....	3
CIS	279	Markup Language Programming	.....	3
Total Hours				15

**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.

CIS	216	Programming in C++	.....	3
CIS	217	Advanced C++	.....	3
CIS	218	Programming in Visual C++	.....	3
CIS	277	Database Concepts	.....	3
CIS	258	Systems Analysis	.....	3
Total Hours				15

**Desktop Publishing**

**(Certificate) Plan 22CH**

The Desktop Publishing certificate prepares individuals to utilize desktop publishing technologies to integrate graphics and text in producing effective communications. With these desktop publishing skills individuals could be employed as media designers or use this skill as a specialty in a variety of information processing support positions.

ART	111	Printing Production	.....	3
AOS	113	Comprehensive Word Processing	.....	3
AOS	215	Presentation Software	.....	2
CIS	290	Desktop Publishing	.....	3
CIS	292	Advanced Desktop Publishing	.....	2
CIS	291	CoreIDRAW	.....	3
		Elective	.....	3
Total Hours				19

**Electives:**

AOS	118	Advanced Word Processing/ Desktop Publishing	.....	2
CIS	299	Selected Topics in Computer Information Systems	.....	1-4
COM	116	Developing Web Pages	.....	3
ENG	124	Newsriting I	.....	3

**Microcomputers for Business**

**(Certificate) Plan 22CG**

The Microcomputers for Business certificate prepares students to apply information technology to solve problems and increase efficiency in the workplace. The certificate develops proficiency in software applications involving data manipulation and management. Through the electives the student can add proficiency in such applications as Windows based programming, desktop publication or graphics.

**Business Courses Required**

ACC	121	Financial Accounting	<i>or</i>	
ACC	112	Accounting Procedures I	.....	3-4
BUS	121	Introduction to Business	.....	3
				6-7

**CIS Courses Required**

CIS	120	Introduction to Computers	.....	3
CIS	111	Comprehensive Spreadsheets	.....	3
CIS	110	Programming Concepts Using Visual Basic	<i>or</i>	
CIS	113	Programming Concepts Using Java	.....	3
CIS	231	E-Commerce Implementation and Impact	.....	3
CIS	230	Comprehensive Database	.....	3
CIS		Electives (non-programming recommended - page 109)	.....	6
				21

Total Hours 27-28

**Computer Information Systems  
Network Specialist**

**(Certificate) Plan 22CK**

CIS	112	Introduction to Local Area Networking	....	3
CIS	115	PC Operations Systems	.....	3
CIS	231	E-Commerce Implementation and Impact	.....	3
CIS	237	Managing a Windows Network Environment	.....	3
CIS	236	LAN Administration	.....	3
		Electives (Any CIS non-programming elective <i>or</i> ELT 151 <i>and/or</i> ELT 152 recommended - page 109)	.....	6

Total Hours 21

## Associate in Applied Science and Career Certificates

To earn this certificate students must have completed, in addition to the six specialty courses listed above, one of the following:

- Bachelor Degree in Business or Computer Information Systems
- Associate Degree in Business or Computer Information Systems
- Coursework in the following areas:
  - Six hours in Communications (written and oral)
  - Six hours in Social and Behavioral Science
  - Six hours in Problem Solving comprised of Mathematics, Logic or Critical Thinking
  - Three hours in Management or Marketing
  - Three hours in Accounting or Finance

For more information on these courses of study students may contact either the division office listed or one of the following faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Daniel Petrosko	A139	(847) 543-2442	<a href="mailto:dpetrosko@clcollinois.edu">dpetrosko@clcollinois.edu</a>
Sanjay Kumar	A140	(847) 543-2818	<a href="mailto:skumar@clcollinois.edu">skumar@clcollinois.edu</a>
Carol Mason	A136	(847) 543-2517	<a href="mailto:cmason@clcollinois.edu">cmason@clcollinois.edu</a>
Dan Dainton	A140	(847) 543-2538	<a href="mailto:ddainton@clcollinois.edu">ddainton@clcollinois.edu</a>
Ellen Dykeman	A236	(847) 543-2521	<a href="mailto:edykeman@clcollinois.edu">edykeman@clcollinois.edu</a>
John North	A236	(847) 543-2507	<a href="mailto:jnorth@clcollinois.edu">jnorth@clcollinois.edu</a>
Bob Scherbaum	A136	(847) 543-2820	<a href="mailto:rscherbaum@clcollinois.edu">rscherbaum@clcollinois.edu</a>
Changyi Chen	A137	(847) 543-2518	<a href="mailto:cchen@clcollinois.edu">cchen@clcollinois.edu</a>
John Owrey	A155	(847) 543-2548	<a href="mailto:jowrey@clcollinois.edu">jowrey@clcollinois.edu</a>

### 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 CIS 120 and ELT 170.

CIS	120	Introduction to Computers .....	3
CIS	115	PC Operating Systems .....	3
ELT	170	DC Circuit Fundamentals .....	2
ELT	151	PC Hardware Fundamentals .....	3
ELT	152	PC Peripherals & Troubleshooting .....	3
Total Hours			14

### 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.

CIS	170	Internet Programming for Business .....	3
CIS	171	Scripting Languages.....	3
CIS	277	Database Concepts .....	3
CIS	210	Introduction to Visual Basic <i>or</i>	
CIS	279	Markup Language Programming <i>or</i>	
CIS	215	Object Oriented Programming	
		Using Java.....	3
CIS	278	Server Side Programming .....	3
Total Hours			15

### CNC PROGRAMMING

#### (Associate in Applied Science)

##### Plan 24NA

**Engineering, Math, Physical Science Division  
Room B162, (847) 543-2044**

The Computerized Numerical Control program is designed to provide knowledge and skills needed for employment and advancement in CNC Programming. Programming on the latest FANUC CNC controlled lathes, milling machines and Wire EDM. Advanced placement in the program may be arranged for experienced programmers and operators. All machine tool courses are approved by the United States Department of Labor, Bureau of Apprenticeship Training.

#### Phase I

CNC	110	CNC Operations I .....	3
EGR	121	Engineering Graphics.....	3
ENG	120	Technical Composition I <i>or</i>	
ENG	121	English Composition I .....	3
MTH	115	Applied Mathematics II .....	3
MTT	112	Machining Principles <i>or</i>	
MTT	210	Machine Shop II .....	3
			15

#### Phase II

CAD	117	Introduction to AutoCAD .....	3
CNC	115	CNC Programming I .....	3
ECO	110	Economics for Business and Industry .....	3
MTH	117	Technical Mathematics I .....	3
MTT	211	Jig and Fixture Design .....	3
			15

#### Phase III

CAD	175	AutoCAD 3D .....	3
CNC	215	Advanced Mill Programming .....	3
CMM	111	Communications Skills .....	3
		Humanities & Fine Arts Elective.....	3
		Technical Elective .....	3
			15

## Associate in Applied Science and Career Certificates

### Phase IV

CNC	216	Advanced Lathe Programming .....	3
CNC	217	Introduction to Wire EDM Machining <i>or</i>	
EWE	220	Cooperative Work Experience I.....	3-4
CNC	218	Introduction to Master Cam .....	3
		Social & Behavioral Sciences Elective ....	3
		Technical Elective .....	3
			15-16
		<b>Total Hours</b>	<b>60-61</b>

### Technical Electives:

Approval of technical electives must be obtained from the program advisor.

CNC	210	CNC Operations II .....	3
ELT	116	Technical Programming .....	3
ELT	117	Industrial Digital Electronics I.....	3
MTT	116	Introduction to Moldmaking .....	3
MTT	115	Introduction to Diemaking .....	3
MCD	111	Manufacturing Processes .....	3
MFG	210	Manufacturing Materials .....	3
MFG	215	Manufacturing Analysis .....	3
MCS	124	Programming in Basic Language.....	2
ROB	111	Introduction to Robotics .....	3

## CNC Programming/Operations

(Certificate)

Plan 24NG

This certificate program provides knowledge and skills needed for entry level employment in CNC programming operating. Operations and programming on FANUC CNC controlled machine tools is performed. Advanced placement may be arranged for experienced machinists.

### Phase I

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
			12

### Phase II

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
			12

### Phase III

CNC	215	Advanced Mill Programming <i>or</i>	
CNC	216	Advanced Lathe Programming .....	3
CNC	217	Introduction to Wire EDM Machining ....	3
			6
		<b>Total Hours</b>	<b>30</b>

## CNC Operations

(Certificate)

Plan 24NH

Students are provided the opportunity to learn the operations of a modern industrial CNC controlled vertical mill, turning center, and vertical machining center. Bridgeport, FANUC manual and conversational controls are used.

### Phase I

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
			9

### Phase II

CNC	210	CNC Operations II .....	3
MTH	114	Applied Mathematics I.....	3
			6

**Total Hours 15**

For more information on this course of study students may contact either the division office listed or the following faculty member.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Don Ruesch	HST150c	(847) 543-2506	<a href="mailto:druesch@clcollinois.edu">druesch@clcollinois.edu</a>

## CRIMINAL JUSTICE

(Associate in Applied Science)

Plan 25CE

Social Science Division, Room A244, (847) 543-2047

This program is structured 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, as well as community-based and institutional corrections. Students pursuing the A.A.S. degree are required to complete twenty-one credit hours of general education, twenty-four credit hours of criminal justice core courses, and fifteen credit hour of criminal justice electives. All students are urged to consult with a criminal justice advisor in planning their program of study.

**General Education Requirements:**

ENG 120	Technical Composition I (recommended) <i>or</i>	
ENG 121	English Composition I .....	3
CMM 121	Fundamentals of Speech .....	3
SOC 121	Introduction to Sociology .....	3
PSC 121	American National Politics <i>or</i>	
PSC 122	State and Local Politics .....	3
PSY 121	Introduction to Psychology .....	3
	Humanities & Fine Arts Elective .....	3
	Science or Mathematics Elective .....	3-4
Total 21-22		

**Criminal Justice Core (Required Courses)**

CRJ 121	Introduction to Criminal Justice .....	3
CRJ 111	Introduction to Policing .....	3
CRJ 123	Introduction to Criminology .....	3
CRJ 124	Penology and Corrections .....	3
CRJ 221	Criminal Law .....	3
CRJ 211	Criminal Procedural Law .....	3
CRJ 229	Juvenile Delinquency .....	3
CRJ 270	Criminal Justice Assessment Seminar .....	3
Total		24

**Criminal Justice Electives (Select 15 credit hours)**

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
HUX 170	Introduction to Substance Abuse .....	3
HUS 112	Community Social Services .....	3
EWE 220	Cooperative Work Experience I.....	3
EWE 270	Cooperative Work Experience II .....	3
SOC 222	Social Problems .....	3
SOC 223	Deviance.....	3
	EDM Elective.....	3
Total Hours		60

**Criminal Justice**

(Certificate)  
Plan 25CF

CRJ 121	Introduction to Criminal Justice .....	3
CRJ 123	Introduction to Criminology .....	3
SOC 121	Introduction to Sociology .....	3
PSY 121	Introduction to Psychology .....	3
CRJ 221	Criminal Law .....	3
	Approved Criminal Justice Courses .....	15
Total Hours		30

For more information on this course of study students may contact either the division office listed or the following faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Roger Voltz	D118	(847) 543-2468	<a href="mailto:rvoltz@clcollinois.edu">rvoltz@clcollinois.edu</a>
Thomas Arnold	D118	(847) 543-2944	<a href="mailto:tra@clcollinois.edu">tra@clcollinois.edu</a>

**DENTAL HYGIENE**

(Associate in Applied Science) Plan 21DH  
Biological & Health Sciences Division  
Room C140, (847) 543-2042.

Dental hygienists are licensed professionals who are a vital part of a dental health team. Dental hygienists provide oral health assessment, disease prevention, and health promotion. They serve individuals and families within the community. The purpose of the dental hygiene program at the College of Lake County is to prepare students to develop the competencies that are 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.

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 (including other community college districts with which CLC has a Joint Educational Agreement).

Attendance at a Program Information Session is required to apply to the program and to learn other specifics of the application process. Sessions are scheduled for the first Thursday of every month (except January, June, and August) from 12:00 to 1:00 p.m. in B224. Attendance is required for each academic year for which the student applies.

1. **Attend one Program Information Session: (Attendance must be at a session that is no more than 12 months prior to the screening deadline). Sessions are scheduled for the first Thursday of every month from 12:00-1:00 p.m.**
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 & 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.

## Associate in Applied Science and Career Certificates

### OR

2. Your college or university record documenting completion of an Associate Degree or Bachelor Degree. The transcript must indicate which degree you were awarded and the date.
  - 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 and math proficiency.
  - C. Successful completion of BIO 121 with a grade of "C" or better.
  - D. Successful completion of CHM 120 or CHM 121 with a grade of "C" or better.
  - E. Attendance at a Dental Hygiene Program Information Session.
  - F. Completion of the Health Occupations Aptitude Exam

**Note:** Applicants can take the Health Occupation Aptitude Exam (HOAE) only twice per screening year. If taken more than two times, the selection committee will only consider the results of the first two exams.

Test scores more than five years old will not be considered.

**Screening Deadline:** First Wednesday in February. If space is available in the program after the initial screening deadline, qualified students will be accepted in an order based on academic qualifications.

Students who have completed either of the following courses (or an equivalent) must have obtained a grade of "C" or better. (These courses are not prerequisites. They are program requirements, but may be taken prior to acceptance into the program.)

- BIO 124- Anatomy and Physiology
- BIO 125- Introduction to Microbiology

**Note:** A student must maintain at least a grade of "C" in each Dental Hygiene course to continue in and graduate from the program. All course prerequisites must be met.

### Summer Session

BIO 124	Anatomy and Physiology	5
ENG 121	English Composition	3
		8

### First Semester

BIO 125	Introduction Microbiology	4
DHY 111	Principles in Dental Hygiene I	2
DHY 113	Preclinical Dental Hygiene	2
DHY 115	Head and Neck Anatomy (Histology)	3
DHY 117	Dental Anatomy	2
DHY 119	Nutrition & Biochemistry	2
DHY 171	Preventive Dental Hygiene	1
		16

### Second Semester

DHY 112	Principles in Dental Hygiene II	2
DHY 114	Clinical Dental Hygiene I	2
DHY 116	Dental Radiology I	3
DHY 118	General and Oral Pathology	2
DHY 172	Medical Emergencies	1
DHY 174	Introduction to Periodontics	2
DHY 176	Dental Materials and Expanded Functions	3
		15

### Summer Session

DHY 178	Review of Dental Literature	1
DHY 179	Clinical Dental Hygiene II	2
Communication Elective (Choose from CMM 111, CMM 121, CMM 123 or CMM 128)		3
		6

### Third Semester

DHY 211	Theory and Practice of Dental Hygiene I	2
DHY 213	Clinical Dental Hygiene III	3
DHY 215	Dental Radiology II	1
DHY 217	Dental Pharmacology & Anesthetics	2
DHY 219	Advanced Periodontics	2
DHY 271	Community Dentistry I	2
DHY 273	Applied Radiology	2
PSY 121	Introduction to Psychology	3
		17

### Fourth Semester

DHY 212	Theory and Practice of Dental Hygiene II	1
DHY 214	Clinical Dental Hygiene IV	3
DHY 216	Ethics and Jurisprudence and Practical Management	2
DHY 218	Dental Radiology III	1
DHY 272	Community Dentistry II	1
DHY 274	Advanced Dental Hygiene	2
SOC 121	Introduction to Sociology	3
Humanities Elective		3
		16

Total Hours 78

For more information on this course of study students may contact either the division office listed or the following faculty member.

Name	Office	Phone Number	E-mail Address
Patty Boudreau	D214	(847) 543-2307	<a href="mailto:pboudreau@clcollinois.edu">pboudreau@clcollinois.edu</a>

## EARLY CHILDHOOD EDUCATION

(Associate in Applied Science) Plan 25EA  
Social Science Division, Room A244, (847) 543-2047

The Associate of Applied Science Degree program in Early Childhood Education prepares students for careers working

## Associate in Applied Science and Career Certificates

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 A.A.S. degree graduates as assistant teachers. The program is designed to qualify graduates for the Director I Credential of the Illinois Network of Child Care Resource and Referral Agencies. Many of the courses transfer to four year institutions with related programs

### General Education Requirements

ENG 121	English Composition I .....	3
CMM 111	Communications Skills <i>or</i>	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 128	Interviewing Practices .....	3
PSY 121	Introduction to Psychology .....	3
SOC 121	Introduction to Sociology .....	3
PSY 222	Child Growth and Development .....	3
	Humanities & Fine Arts Elective .....	3
MTH 121	Mathematics for Elementary	
	Teaching I <i>or</i> higher Mathematics	
	<i>or</i> Science Elective .....	3
	<b>Total</b>	<b>21</b>

### Early Childhood Education Core (Required Courses)

HUS 121	Health and Nutrition .....	3
ECE 115	Music Activities for Young Children .....	3
ECE 116	Creative Activities .....	3
ECE 119	Language Development/Activities	
	for Young Children .....	3
ECE 131	The Special Needs Child in Early	
	Childhood Education .....	3
ECE 132	Professional Ethics in Early	
	Childhood Education .....	1
ECE 214	Group Care of Infants and Toddlers .....	3
ECE 221	Principles of Early Childhood Education	3
ECE 223	Child, Family, and Community .....	3
ECE 232	Math and Science for Young Children.....	3
ECE 270	Early Childhood Program	
	Administration I: Human Aspects .....	3
EDU 120	Observation and Guidance of Children ...	3
ECE 271	Early Childhood Education Practicum I ..	4
ECE 272	Early Childhood Education	
	Practicum II .....	4

### Early Childhood Education Electives

(Select at least 3 credit hours)

ECE 117	Creative Activities for Infants,	
	Toddlers and Twos .....	3
ECE 231	School-Age Programming .....	3
ECE 273	Early Childhood Program	
	Administration II: Business Aspects*....	3
EDU 222	The Exceptional Child .....	3
EDU 299	Special Topics in Education.....	1-3
	<b>Total Education Core/Elective Hours</b>	<b>45</b>
	<b>Total Hours for Degree</b>	<b>66</b>

\* Students interested in obtaining the Illinois Director Credential will be required to take ECE 273.

## Early Childhood Education

(Certificate) • Plan 25EB

The certificate program is intended for students who already hold degrees or who have taken extensive coursework in other academic fields. The certificate provides the additional study that is often required when there has been a career change.

### General Education Requirements

ENG 121	English Composition I <i>or</i>	
ENG 120	Technical Composition I .....	3
PSY 121	Introduction to Psychology .....	3
PSY 222	Child Growth and Development .....	3
HUS 121	Health and Nutrition .....	3
EDU 120	Observation and Guidance of Children ....	3
ECE 221	Principles of Early	
	Childhood Education .....	3
	<b>Total</b>	<b>18</b>

### Select 15 credit hours from the following:

ECE 115	Music Activities for Young Children .....	3
ECE 116	Creative Activities I .....	3
ECE 119	Language Development and	
	Activities for Young Children .....	3
ECE 131	The Special Needs Child	
	in Early Childhood Education .....	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 270	Early Childhood Program	
	Administration I: Human Aspects .....	3
ECE 273	Early Childhood Program	
	Administration II: Business Aspects.....	3
EDU 299	Special Topics in Education	
	(With Coordinator Approval) .....	3
	<b>Total Hours</b>	<b>33</b>

## Infant-Toddler Specialist

(Certificate) • Plan 25EC

This 15-credit hour Infant-Toddler Specialist Certificate is designed to prepare 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 A.A.S. degree in Early Childhood Education.

PSY 121	Introduction to Psychology .....	3
PSY 222	Child Growth and Development .....	3
ENG 121	English Composition <i>or</i>	
ENG 120	Technical Composition I .....	3
ECE 117	Creative Activities for Infants,	
	Toddlers, and Twos .....	3
ECE 214	Group Care of Infants and Toddlers .....	3
	<b>Total Hours</b>	<b>15</b>

## Associate in Applied Science and Career Certificates

For more information on this course of study students may contact either the division office listed or one of the following faculty members.

Name	Office	Phone Number	E-mail Address
Diane Wolter	D122	(847) 543-2570	dwolter@clcollinois.edu

### EDUCATION PARAPROFESSIONAL

**(Associate in Applied Science) • Plan 25TB**  
**Social Science Division, Room A244, (847) 543-2047**

This program is designed to prepare students with the knowledge and skills required to work successfully as teacher aides primarily in elementary and middle schools.

#### General Education Requirements

##### English/Communication

CMM 121	Fundamentals of Speech	3
ENG 121	English Composition I	3
ENG 122	English Composition II	3

##### Social Science ..... 3

*(Choose from the selection below)*

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 Civilization <i>or</i>	
HST 127	History of Chinese Culture and Society	

##### Humanities/Fine Arts Elective ..... 3

*(Choose from the selection below)*

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	

##### Math/Science Elective ..... 3-4

*(Choose from the selection below)*

AST 121	Introduction to Astronomy <i>or</i>	
BIO 120	Environmental Biology <i>or</i>	
BIO 121	General Biology <i>or</i>	
GEG 121	Physical Geography <i>or</i>	
GEO 120	Earth Science <i>or</i>	
MTH 121	Mathematics of Elementary Teaching I <i>or</i>	
PHY 120	Practical Aspects of Physics	

18-19

##### Paraprofessional Core

ECE 119	Language Development and Activities	3
EDU 122	Pre-Clinical Educator Experience	1
EDU 221	Introduction to Teaching <i>or</i>	
ECE 221	Principles of Early Childhood Education	3
EDU 222	The Exceptional Child	3
EDU 223	Technology in the Classroom	3

ENG 249	Children's Literature	3
PSY 121	Introduction to Psychology	3
PSY 221	Educational 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

28

#### Electives (Choose 18 credit hours)

ANT 221	Cultural Anthropology*	3
ART 125	Art for Elementary Teachers I	3
ART 126	Art for Elementary Teachers II	3
BIO 120	Environmental Biology*	4
BIO 121	General Biology*	4
CRJ 229	Juvenile Delinquency	3
ECE 223	Child, Family, and Community	3
ECE 115	Music Activities for Young Children	3
EDU 120	Observation and Guidance of Children	3
EDU 299	Special Topics in Education (with coordinator'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 111	Health and Nutrition	3
HUX 170	Introduction to Substance Abuse	3
PSY 226	Adolescent Development	3
SOC 223	Sociology of the Family	3
SPA 121	Beginning Conversational Spanish	3

Total Hours 63-64

\* Cannot use one course to meet two requirements

### Paraprofessional Educator

**(Certificate) • Plan 25TB**

Individuals who are currently working as teacher's aids or who are considering a career as a teacher aides would benefit from this certificate.

#### Required Courses

ECE 119	Language Development & Activities	3
EDU 221	Introduction to Teaching <i>or</i>	
ECE 221	Principles of Early Childhood Education	3
EDU 222	The Exceptional Child	3
EDU 223	Technology in the Classroom	3
ENG 249	Children's Literature	3
PSY 221	Educational Psychology	3
PSY 222	Child Growth & Development	3
MTH 121	Mathematics for Elementary Teaching I <i>or</i>	
MTH 221	Mathematics for Elementary Teaching II	3

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## Associate in Applied Science and Career Certificates

**Choose 6-8 credit hours from the courses below:**

ENG 121	English Composition I	3
ENG 122	English Composition II	3
CMM 121	Fundamentals of Speech	3
ANT 121	Introduction to Anthropology	3
ANT 221	Cultural Anthropology	3
GEG 122	Cultural Geography	3
GEG 123	World Regional Geography	3
HST 126	History of Contemporary Non-Western Civilization	3
HST 127	History of Chinese Culture and Society	3
MUS 124	Introduction to Music	3
MUS 224	Music Literature	3
ART 121	Introduction to Art	3
ART 240	Art History I	3
HUM 127	Introduction to Humanities	3
PHI 125	Introduction to Ethics	3
BIO 120	Environmental Biology	4
BIO 121	General Biology	4
PHY 120	Practical Aspects of Physics	4
GEG 121	Physical Geography	3
GEO 120	Earth Science	4
AST 121	Introduction to Astronomy	4
6-8		

**Choose 6 hours from the courses below:**

HUS 121	Health and Nutrition	3
ANT 221*	Cultural Anthropology	3
BIO 120*	Environmental Biology	4
BIO 121*	General Biology	4
GEG 121*	Physical Geography	3
ART 125	Art for Elementary Teachers I	3
ART 126	Art for Elementary Teachers II	3
EDU 120	Observation and Guidance of Children	3
SPA 121	Beginning Conversational Spanish	3
SOC 223	Sociology of the Family	3
ECE 223	Child Family and Community	3
PSY 226	Adolescent Development	3
ECE 115	Music Activities for Young Children	3
CRJ 229	Juvenile Delinquency	3
HUX 170	Introduction to Substance Abuse	3
HST 221	U.S. History to 1876	3
HST 222	U.S. History from 1876	3
EDU 299	Special Topics in Education (with coordinator's consent)	3
6		

Total Hours 36-38

For more information on this course of study students may contact either the division office listed or the following faculty member.

Name	Office	Phone Number	E-mail Address
Carol Huntsinger	D120	(847) 543-2742	<a href="mailto:chuntsinger@cccillinois.edu">chuntsinger@cccillinois.edu</a>

## ELECTRICIAN APPRENTICESHIP

(Associate in Applied Science) • Plan 24EG  
Engineering, Math, Physical Science Division  
Room B162, (847) 543-2044

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.*

**First Year - First Semester**

EMF 111	Electronics Mathematics I	2
EMF 112	Electronics Mathematics II	2
ELT 170	DC Circuit Fundamentals	2
ISE 114	National Electrical Code	2
EAP 111	Electrician Apprenticeship Work Experience I	2
10		

**First Year - Second Semester**

ELT 111	Electronic Drafting	2
ELC 113	Basic Instrumentation & Shop Practice	3
EAP 111	Electrician Apprenticeship Work Experience II (Continued from 1st semester)	5
5		

**Second Year - First Semester**

BCT 112	Construction Blueprint Reading	3
ELC 172	Applied AC Circuit Theory	2
EAP 112	Electrician Apprenticeship Work Experience II	2
7		

**Second Year - 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 (Continued from 1st semester)	6
6		

**Third Year - First Semester**

ELT 173	Applied Analog Circuits	3
*CMM 111	Communications Skills <i>or</i>	
*CMM 121	Fundamentals of Speech	3
EAP 113	Electrician Apprenticeship Work Experience III	2
8		

**Third Year - Second Semester**

ELC 114	Motor and Machine Controls	3
ELC 276	Electrical Industrial Safety	1
BCT 118	Mechanical and Electrical Equipment	3
EAP 113	Electrician Apprenticeship Work Experience III (Continued from 1st semester)	7
7		

**Fourth Year - First Semester**

ELC 211	Electrical Machines	3
ELC 171	Programmable Logic Controllers	3
EAP 114	Electrician Apprenticeship Work Experience IV	2
8		

## Associate in Applied Science and Career Certificates

### Fourth Year - Second Semester

*HST	225	American Labor History .....	3
ELT	117	Industrial Digital Electronics I.....	3
EAP	114	Electrician Apprenticeship Work Experience IV (Continued from 1st semester)	6

### Fifth Year - First Semester

*CAD	117	Introduction to AutoCAD .....	3
*ARC	228	History of Architecture .....	3
EAP	115	Electrician Apprenticeship Work Experience V.....	2

### Fifth Year - Second Semester

ELT	172	Industrial Control Systems.....	3
EAP	115	Electrician Apprenticeship Work Experience V (Continued from 1st semester)	3
			3
Total Hours			68

\* Classes to take at CLC.

For more information on this course of study students may contact either the division office listed or the following faculty member.

Name	Office	Phone Number	E-mail Address
Tony Gundrum	B140	(847) 543-2489	<a href="mailto:tgundrum@clcillinois.edu">tgundrum@clcillinois.edu</a>

## ELECTRONIC INFORMATION TECHNOLOGY

(Associate in Applied Science) • Plan 24ET  
Engineering, Math, Physical Science Division  
Room B162, (847) 543-2044

This degree provides a comprehensive study of computer (PC) hardware, computer networking, and the computer software required for a computer networking support specialist. This degree will prepare students to work in the information technology field by preparing them with a theoretical background as well as hands on experiences. The intent is to give the students a working knowledge of the Support Technician field with both software and hardware experience.

### First Semester

ELT	151	PC Hardware Fundamentals .....	3
CIS	120	Introduction to Computers .....	3
ELT	170	DC Circuit Fundamentals .....	2
ELC	172	Applied AC Circuit Theory .....	2
EIT	110	Topics in Mathematics for Computer and Electronic Technicians ..	3
ENG	120	Technical Composition I .....	3

### Second Semester

ELT	152	PC Peripherals and Troubleshooting .....	3
CIS	115	PC Operating Systems .....	3
EIT	111	Digital and Network Fundamentals .....	4
HUM	127	Critical Thinking .....	3
CMM	121	Fundamentals of Speech .....	3
			16

### Third Semester

EIT	210	Data and Network Communications .....	4
CIS	236	LAN Administration/Novell .....	3
		Computer Language Elective.....	3
EWE	220	Cooperative Work Experience I <i>or</i> Technical Elective ** .....	3
		Social & Behavioral Sciences Elective ....	3
			16

### Fourth Semester

EIT	211	Network Design and Analysis .....	4
CIS	236	LAN Administration/NT .....	3
EIT	212	LINUX Operating System .....	3
		Technical Elective** .....	3
EWE	270	Cooperative Work Experience II <i>or</i> Technical Elective** .....	3
			16
Total Hours			65

\* ELT 116, CIS 110, CIS 113, CIS 170, or other departmentally approved elective.

\*\*Chosen for ELT/ELC, CIS, CNA, or other departmentally approved elective

The electives may be chosen to be used in a sequence such as CIS 170 & CIS 171 (Web Programmer), CIS 113-CIS215 (Java), ELT 116-CIS217 (C++), CIS 110-CIS210 (Visual Basic).

## Linux System Administration

(Certificate) • Plan 24ES

CNA	111	CISCO Networking I <i>or</i>	
EIT	111	Digital and Network Fundamentals .....	3
EIT	212	Applied Linux .....	3
EIT	232	Linux Server Implementation .....	3
ELT	151	PC Hardware Fundamentals .....	3
ELT	152	PC Peripherals and Troubleshooting .....	3

Total Hours 15

For more information on this course of study, students may contact either the division office listed or one of the following faculty members.

Name	Office	Phone Number	E-mail Address
Tony Gundrum	B140	(847) 543-2489	<a href="mailto:tgundrum@clcillinois.edu">tgundrum@clcillinois.edu</a>
Richard Hoppel	A234	(847) 543-2494	<a href="mailto:rhoppel@clcillinois.edu">rhoppel@clcillinois.edu</a>
Michelle Leonard	B140	(847) 543-2760	<a href="mailto:mleonard@clcillinois.edu">mleonard@clcillinois.edu</a>
Greg Morris	A234	(847) 543-2905	<a href="mailto:gemorris@clcillinois.edu">gemorris@clcillinois.edu</a>

## ELECTRONICS ENGINEERING TECHNOLOGY

(Associate in Applied Science)

**Plan 24ED**

**Engineering, Math, Physical Science Division  
Room B162, (847) 543-2044**

Students are prepared to work in research, electronic layout, instrumentation, design, field service, communications and service laboratories.

**First Semester (Fall)**

ELT 111	Electronic Drafting .....	2
ELT 170	DC Circuit Fundamentals .....	2
ELC 173	DC Analysis-Network Theorems .....	2
MTH 117	Technical Mathematics I* .....	3
ELT 116	Technical Programming .....	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....	3
		<b>15</b>

**Second Semester (Spring)**

ELT 213	Introduction to Digital Electronics .....	4
ELC 174	AC Fundamentals .....	2
ELC 175	AC Analysis & Circuit Theorems .....	2
MTH 118	Technical Mathematics II* .....	3-4
SOC 121	Introduction to Sociology .....	3
	Humanities & Fine Arts Elective .....	3
		<b>17-18</b>

**Third Semester (Fall)**

ELT 113	Transistor Electronics .....	4
ELT 216	Microprocessors I .....	3
MTH 224	Calculus for Business and Social Science <sup>1</sup> .....	4
PHY 120	Practical Aspects of Physics* .....	4
CMM 111	Communications Skills <i>or</i>	
CMM 121	Fundamentals of Speech .....	3
		<b>17</b>

**Fourth Semester (Spring)**

ELT 115	Electronic Laboratory Techniques <i>or</i> approved Technical Elective .....	2
ELT 211	Advanced Solid State Electronics .....	3
ELT 212	Electronic Communication Systems .....	3
ELT 217	Microprocessors II .....	3
ECO 110	Economics for Business & Industry <i>or</i>	
ECO 221	Principles of Macroeconomics .....	3
		<b>14</b>

Total Hours 63-65

<sup>1</sup> Students choosing to complete MTH 117 and MTH 118 should follow with MTH 224.

Please see an advisor in the Electronics area before selecting these courses.

## Electronics Technology

(Certificate)

**Plan 24EF**

A minimum of 34 semester hours 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.

PHY 120	Practical Aspects of Physics <i>or</i> higher level physics .....	4
MTH 117	Technical Mathematics I <i>or</i> higher level Math .....	3-4
MTH 118	Technical Mathematics II <i>or</i> higher level Math .....	4
ELT 111	Electronic Drafting .....	2
ELT 170	DC Circuit Fundamentals <i>and</i>	
ELC 173	DC Analysis-Network Theorems .....	4
ELC 174	AC Fundamentals <i>and</i>	
ELC 175	AC Analysis & Circuit Theorems .....	4
ELT 113	Transistor Electronics .....	4
ELT 116	Technical Programming .....	3
ELT 211	Advanced Solid State Electronics .....	4
ELT 212	Electronic Communications Systems .....	3
ELT 213	Introduction to Digital Electronics .....	4
ELT 216	Microprocessors I .....	3
ELT 217	Microprocessors II .....	3
ELT 271	Circuit Analysis Computer Techniques .....	3
ELT 272	Circuit Analysis Techniques .....	3
	<b>Total Hours</b>	<b>34</b>

For more information on this course of study students may contact either the division office listed above or one of the following faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Tony Gundrum	B140	(847) 543-2489	<a href="mailto:tgundrum@clcillinois.edu">tgundrum@clcillinois.edu</a>
Richard Hoppel	A234	(847) 543-2494	<a href="mailto:rhoppel@clcillinois.edu">rhoppel@clcillinois.edu</a>
Michelle Leonard	B140	(847) 543-2760	<a href="mailto:mleonard@clcillinois.edu">mleonard@clcillinois.edu</a>
Greg Morris	A234	(847) 543-2905	<a href="mailto:gemorris@clcillinois.edu">gemorris@clcillinois.edu</a>

\*For Students who wish to pursue a Bachelor Degree in Engineering Technology these courses may be substituted: MTH 122 College Algebra, MTH 123 Trigonometry, MTH 144, Pre-Calculus, MTH 145, Calculus, PHY 121 General Physics

## Associate in Applied Science and Career Certificates

### Electrical/Electronic Maintenance

(Certificate)

Plan 24EH

Engineering, Math, Physical Science Division

Room B162, (847) 543-2044

This program is intended to provide students with 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.

#### First Semester (Fall)

ELT 170	DC Circuit Fundamentals .....	2
ELC 172	Applied AC Circuit Theory .....	2
ELT 117	Industrial Digital Electronics I.....	3
ELC 113	Basic Instrumentation and Shop Practices	2
MTH 114	Applied Mathematics I <i>or</i> MTH 117 <i>or</i> higher level math .....	3-4
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....	3
		15-16

#### Second Semester (Spring)

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
	Technical Elective .....	3-4
		15-16

Total Hours 30-32

#### 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
ELC 114	Motor and Machine Control .....	3
ELC 171	Programmable Logic Controllers.....	3
ELC 211	Electrical Machinery .....	3
ELC 215	Power Transmission and Distribution .....	4
ELT 151	PC Hardware Fundamentals .....	3
ELT 152	PC Peripherals & Troubleshooting .....	3
ROB 111	Introduction to Robotics .....	3

For more information on this course of study students may contact either the division office listed above or one of the following faculty members.

Name	Office	Phone Number	E-mail Address
Tony Gundrum	B140	(847) 543-2489	<a href="mailto:tgundrum@clcollinois.edu">tgundrum@clcollinois.edu</a>
Richard Hoppel	A234	(847) 543-2494	<a href="mailto:rhoppel@clcollinois.edu">rhoppel@clcollinois.edu</a>
Michelle Leonard	B140	(847) 543-2760	<a href="mailto:mleonard@clcollinois.edu">mleonard@clcollinois.edu</a>
Greg Morris	A234	(847) 543-2905	<a href="mailto:gemorris@clcollinois.edu">gemorris@clcollinois.edu</a>

### 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 CIS 120 and ELT 170.

CIS 120	Introduction to Computers .....	3
CIS 115	PC Operating Systems .....	3
ELT 170	DC Circuit Fundamentals .....	2
ELT 151	PC Hardware Fundamentals .....	3
ELT 152	PC Peripherals & Troubleshooting .....	3
Total Hours		14

For more information on these courses of study students may contact either the division office listed or the following faculty member.

Name	Office	Phone Number	E-mail Address
Greg Morris	A234	(847) 543-2905	<a href="mailto:gemorris@clcollinois.edu">gemorris@clcollinois.edu</a>

### EMERGENCY MEDICAL SERVICES

Biological & Health Sciences Division

Room C140, (847) 543-2042

### Emergency Medical Technician - Basic

(Certificate) • Plan 21EM

Emergency medical technicians provide emergency medical care for illness and injury at the site and in route 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 of the Illinois Department of Public Health 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 ..	7
Total Hours		7

**Emergency Medical Technician - Paramedic**

(Certificate) • Plan 21EP

Paramedics provide emergency medical care for illness and injury at site and en route 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 of the Illinois Department of Public Health to become an EMT-P (Emergency Medical Technician-Paramedic). Courses are offered at associated hospitals in Lake County.

*Note:* Effective Fall 2003, completion of BIO 111 or BIO 124 with a C or better will be required for enrollment in EMT 131.

BIO 111	Human Form and Function or	
BIO 124	Anatomy and Physiology .....	4-5
EMT 114	EMT Paramedic – Clinical Practicum .....	2
EMT 115	EMT Paramedic – Field Experience Practicum .....	2
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		30-31

**NOTE:** All EMT classes are held at area hospitals or fire and rescue departments. Registration for classes is processed directly through the individual site that is hosting the class. Space is limited and classes fill up quickly. For more information regarding requirements for the classes and how to register, please contact one of the EMS coordinators listed below:

- **Vista Healthcare**  
*EMT-Basic*  
Aaron Bernau (847) 360-2038 (Provena St. Therese)
- *EMT-Paramedic*  
Chris Batchelder (847) 360-4333, extension 5094  
(Victory Memorial Hospital)
- **Grayslake Fire Protection District**  
*EMT-Basic*  
John Christian (847) 223-8960
- **Condell Medical Center**  
*EMT-Paramedic*  
Sharon Hopkins (847) 990-5309
- **Evanston Northwestern Healthcare**  
*EMT-Basic*  
Martha Pettineo (847) 480-3787 (Highland Park Hospital)
- *EMT-Paramedic*  
Martha Pettineo (847) 480-3787 (Highland Park Hospital)



**EMERGENCY AND DISASTER MANAGEMENT**

(Certificate)  
Plan 25EM  
Social Science Division, Room A244, (847) 543-2047

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		15

For more information on this course of study students may contact the division office listed.

## Associate in Applied Science and Career Certificates

### ENGLISH

(Certificate)

Plan 23TK

Communication Arts, Humanities & Fine Arts Division  
Room B237, (847) 543-2040

#### Teaching English to Speakers of Other Languages

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 professionals interested in applying their skills in the field of English language teaching. NOTE: This certificate does not meet the requirements for the Illinois State Board of Education ESL approval, but individual courses can be used towards the approval.

#### Introductory Courses

EDU 221	Introduction to Teaching .....	3
PSY 121	Introduction to Psychology .....	3
ENG 127	Introduction to General Linguistics .....	3
ENG 128	Linguistics and Society .....	3
CMM 127	Intercultural Communication .....	3
		15

#### Specialty Courses

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 271	Teaching English to Speakers of Other Languages Practicum .....	3
		15

Total Hours 33

### FIRE SCIENCE TECHNOLOGY

(Associate in Applied Science)

Plan 24FB

Social Science Division, Room A244, (847) 543-2047

Fire Science Technology is a career program that leads to an Associate in Applied Science Degree. It is designed to serve the needs of students in the Fire Service, and to prepare others to enter the service.

Many of the Fire Science courses are articulated with the Office of the State Fire Marshal and count toward the requirements for INSTRUCTOR I, INSTRUCTOR II, FIRE OFFICER I, FIRE OFFICER II, APPARATUS ENGINEER, AND HAZMAT 1ST RESPONDER.

#### General Education Requirements

ENG 120	Technical Composition I* <i>or</i>	
ENG 121	English Composition I .....	3
CMM	(CMM 111, 121, 122, 123, or 128*) .....	3
PSY 121	Introduction to Psychology .....	3
PSC 122	State and Local Government .....	3
PHY 120	Practical Aspects of Physics (or higher level) .....	4
	Humanities and Fine Arts Electives .....	6
MTH	(The mathematics requirement may be met by completing one of the following sequences.)	
	MTH 114 & 115 Applied* Mathematics I & II .....	6
	MTH 117* & 118 Technical Mathematics I & II .....	7
	MTH 122 & 123 College Algebra, Trigonometry .....	7
	MTH 144 Precalculus .....	5
	MTH 127 & 222 Finite Mathematics & Elementary Statistics .....	7
	MTH 141 Quantitative Literacy and CIS 120 Introduction to Computers <i>or</i> CIS 119 Introduction to Office Software .....	6
	Total General Education	27-29

\* These courses are not recommended for students who are planning to transfer to SIU.

#### Required Fire Science Courses

FST 111	Introduction to Fire Science (Not for active firemen) .....	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
	Total (required FST)	18

#### Fire Science Electives - 18 Credit Hours

Pick six courses from the following:

FST 117	Tactics and Strategy II .....	3
FST 119	Fire Apparatus Engineer .....	3
FST 174	Fire Instructor II .....	3
FST 273	Fire Science Business & Operations (MGMT III) .....	3
FST 274	Fire Administration & The Law (MGMT IV) .....	3
FST 192	Hazardous Materials First Responder .....	3
FST 118	Incident Command .....	3
FST 279	Special Topics in the Fire Service .....	3

Total FST Electives- 15 hrs.

Total Hours 60

For more information on this course of study students may contact the division office listed above.

**FOOD SERVICE**

(Associate in Applied Science)

**Plan 22FB**

**Business Division, Room A143, (847) 543-2041**

The Food Service program is designed to provide students with technical skills in food preparation, food operations and food service management.

Food Service Management is designed to prepare students for managerial positions in the food service industry. It emphasizes course work in business management and supervision, food service operations and sufficient food preparation to manage kitchen activities. Students selecting this option would be preparing for such positions as food service supervisor, manager in a chain or independent restaurant, owner-manager, catering manager or managerial positions with food and food equipment manufacturers.

**Communications Courses (6 Hours)**

ENG 121	English Composition <i>or</i>	
ENG 120	Technical Composition I .....	3
CMM 128	Interviewing Practices <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.....	3

**General Education Courses (12 Hours)**

PSY 122	Psychology in Business and Industry .....	3
	Humanities & Fine Arts Elective* .....	3
	Social & Behavioral Sciences Elective* ..	3
	Math or Science Elective (AOS 122 recommended)* .....	3

**Business Courses (12 Hours)**

BUS 121	Introduction to Business .....	3
ACC 112	Accounting Procedures I .....	3
CIS 119	Introduction to Office Software .....	3
BUS 221	Business Law I.....	3

**Food Service Management Courses (27 Hours)**

FSM 110	Introduction to Professional Food Service .....	3
FSM 111	Principles of Food Preparation I .....	4
FSM 113	Applied Food Service Sanitation .....	1
FSM 170	Principles of Food Preparation II.....	4
FSM 175	Nutrition .....	3
FSM 212	Menus/Merchandising/ Facilities Planning .....	3
FSM 213	Quantity Food Purchasing .....	3
FSM 271	Food Service Management .....	3
FSM 273	Food, Beverage, and Labor Control .....	3

**Electives (3 Hours)**

EWE 220	Cooperative Work Experience I <i>or</i>	
BUS 115	Elements of Supervision <i>or</i>	
BUS 219	Small Business Management <i>or</i>	
FSM 299	Selected Topics in Food Service .....	3

Total Hours 60

\* Courses that meet these requirements can be found in the Programs of Instruction and Graduation Requirements section of the CLC Catalog under Career Programs Degree Requirements

**Food Service Management**

(Certificate) Plan 22FG

**Business Division, Room A143, (847) 543-2041**

This program prepares students for entry level employment in restaurants, clubs, caterers, bakeries and institutional food service as members of the management team. Professional food service managers are able to profitably plan menus, purchase products and services, and recruit and motivate employees in appropriately designed facilities to market prepared food and beverage services to customers.

FSM 110	Introduction to Professional Food Service .....	3
FSM 111	Principles of Food Preparation I .....	4
FSM 113	Applied Food Service Sanitation .....	1
FSM 170	Principles of Food Preparation II .....	4
FSM 175	Nutrition .....	3
FSM 212	Menus/Merchandising/Facilities Planning	3
FSM 213	Quantity Food Purchasing .....	3
FSM 271	Food Service Management .....	3
FSM 273	Food, Beverage, Labor Control .....	3
EWE 220	Cooperative Work Experience I <i>or</i> FSM Elective .....	3-4
	Total Hours	30-31

**Culinary Arts**

(Certificate) Plan 22FH

**Business Division, Room A143, (847) 543-2041**

This program prepares students for employment as cooks and bakers in the food service industry. Graduates of the program are able to profitably plan menus, utilize recipes, choose ingredients, use equipment properly and safely, coordinate production, and maintain records to satisfy discriminating customers. Appropriate experience and expertise in the industry leads to "chef" status."

FSM 110	Introduction to Professional Food Service .....	3
FSM 111	Principles of Food Preparation I .....	4
FSM 112	Culinary Arts I .....	3
FSM 113	Applied Food Service Sanitation .....	1
FSM 170	Principles of Food Preparation II.....	4
FSM 171	Culinary Arts II .....	3
FSM 175	Nutrition .....	3
FSM 213	Quantity Food Purchasing .....	3
EWE 220	Cooperative Work Experience I <i>or</i> FSM Elective .....	3-4
	Total Hours	27-28

## Associate in Applied Science and Career Certificates

### Professional Cook

(Certificate)

Plan 22FD

Business Division, Room A143, (847) 543-2041

This program prepares students for entry level employment as cooks and bakers in the Food Service Industry. Students are taught to use recipes, equipment, and ingredients in a professional kitchen.

FSM 111	Principles of Food Preparation I .....	4
FSM 112	Culinary Arts I .....	3
FSM 113	Applied Food Service Sanitation .....	1
FSM 170	Principles of Food Preparation II.....	4
FSM 171	Culinary Arts II .....	3
	Total Hours	15

For more information on this program of study students may contact either the division office listed above or the following faculty member.

Name	Office	Phone Number	E-mail Address
Cliff Wener	A135	(847) 543-2823	<a href="mailto:crwener-fsm@clcollinois.edu">crwener-fsm@clcollinois.edu</a>

### HEALTH INFORMATION TECHNOLOGY

(Associate in Applied Science)

Plan 21HM

Biological & 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 the college's Health Information Technology Program include coding professionals, health information department managers, cancer registrars, nursing home consultants, quality improvement specialists, medical billers, transcriptions, and medical office managers, among others. Work settings include hospitals, HMOs, physicians' offices, clinics, insurance companies, professional associations, nursing homes, and medical billing services.

If you are interested in health care but don't think direct patient care is right for you, health information technology can prepare you for a satisfying and rewarding career in health care and related fields.

#### Accreditation and Certification

The Commission on the Accreditation of Allied Health Educational Programs (CAAHEP) in cooperation with the American Health Information Management Association's Council on Accreditation accredits the Health Information Technology Program. Graduates of the program are eligible to apply to write the certification examination of the American Health Information Management Association for the designation RHIT (Registered Health Information Technician).

#### Admissions to the program

Interested students may take HIT111, 112, 113, 115, 117, 118, 119, and 215 prior to being admitted to the program. However, the number of students that can be admitted to the Professional Practice Experience (HIT212 and HIT213) 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 should seek admission to the Health Information Technology Program the year prior to enrolling in HIT212. (e.g., If you expect to take HIT212 in Fall 2006, apply by February 2005.) DO NOT APPLY for admission to the program unless you are planning on enrolling in HIT212 in the fall of next year. If you are accepted into the program and do not enroll in HIT212 as scheduled, CLC will attempt to accommodate the schedule change but there is no guarantee you will be permitted to enroll in HIT212 in subsequent years. Please review the admission requirements that are listed below.

- 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. Meetings are scheduled for 1:00 p.m. on the first Wednesday of each even month and 4:30 p.m. on the first Wednesday of each odd month except January, June and August.**
- Submit the following records to the Admission and Records Office:**
  - Application for admission to the college.
  - Official transcript/test results (sent to the Admission & Records Office directly from the appropriate institution):
    - 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**

  - Your college or university record documenting completion of an Associate Degree or Bachelor Degree. The transcript must indicate which degree you were awarded and the date.

## Associate in Applied Science and Career Certificates

- C. Official transcripts (sent directly to CLC from the appropriate institution) from any previous college(s) showing course work relevant to the Health Information Technology Program selection criteria.
- D. Results of the HOAE (Health Occupations Aptitude Exam).
- E. Current Health Information Technology Request for Screening.
- 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 and Math proficiency.
  - C. Cumulative GPA of 2.0 or above for any credit courses completed at CLC.
  - D. Completion of the Health Occupations Aptitude Exam (HOAE).

**Note:** Applicants can take the Health Occupation Aptitude Exam (HOAE) only twice per screening year. If taken more than two times, the selection committee will only consider the results of the first two exams.

Test scores more than five years old will not be considered.

**Screening deadline:** The first Wednesday in February.

### General Education and Support Courses

ENG 121	English Composition I <i>or</i>	
ENG 120	Technical Composition I .....	3
BIO 111	Human Form and Function <i>or</i>	
BIO 124	Anatomy & Physiology .....	4-5
CIS 120	Introduction to Computers <i>or</i>	
AOS 112	Automated Office Technology .....	3
CIS 119	Introduction to Office Software <i>or</i>	
CIS 230	Comprehensive Database .....	3
	Social and Behavioral Science Electives ..	6
	Humanities and Fine Arts Elective .....	3
	Communications Elective (Choose from CMM 111, 121, 122, 123, or 128) .....	3
		25-26

A student must achieve a grade of C or better in all HIT courses.

### Health Information Technology Courses:

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
HIT 217	Health Information Systems and Data Literacy .....	3
HIT 218	Seminar in Health Information .....	2
HIT 219	Quality Management and Performance Improvement .....	2
HIT 271	Advanced Coding .....	2
HIT 272	Reimbursement Systems in Healthcare .....	2

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Total Hours for A.A.S. Degree 66-67

The following courses will be offered in the spring of odd years (spring of 2005, spring of 2007) ONLY: HIT 172 and HIT 217

The following courses will be offered in the spring of even years (spring of 2006, spring of 2008) ONLY: HIT 214 and HIT 219

Students are *recommended* to seek the advice of the HIT faculty for course scheduling *every* semester.

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## Medical Transcription

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(Certificate)

**Plan 21MH**

**Biological & Health Sciences Division**

**Room C140, (847) 543-2042**

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, physician offices and transcription services.

## Associate in Applied Science and Career Certificates

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 achieve a grade of C or better in all HIT courses.

BIO	111	Human Form and Function <i>or</i>	
BIO	124	Anatomy & Physiology .....	4-5
AOS	113	Comprehensive Word Processing .....	3
AOS	172	Business English .....	3
AOS	175	Keyboarding Speed and Accuracy <i>or</i>	
AOS	128	Intermediate Keyboarding .....	2-4
HIT	111	Medical Terminology .....	3
HIT	112	Health Care Delivery Systems .....	2
HIT	114	Medical Transcription .....	2
HIT	115	Health Data Content and Structure .....	3
HIT	116	Advanced Medical Transcription .....	3
HIT	119	Pharmacology .....	1
HIT	174	Professional Practice Experience in Medical Transcription .....	1
HIT	215	Medical Science .....	3
Total Hours			30-33

### Medical Billing Specialist

**(Certificate) Plan 21HN**  
**Biological & Health Sciences Division**  
**Room C140, (847) 543-2042**

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 achieve a grade of C or better in all HIT courses.

BIO	111	Human Form and Function <i>or</i>	
BIO	124	Anatomy and Physiology .....	4-5
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
A computer applications course: (CIS 120 or AOS 112 or CIS 119) .....			3
Total Hours			20-21

### Medical Coding Specialist

**(Certificate) • Plan 21HR**  
**Biological & Health Sciences Division**  
**Room C140, (847) 543-2042**

Medical coders review patient records and classify their medical conditions (diagnoses) and procedures by using numerical codes. These codes are used for insurance claims, to generate a database that allows healthcare providers to retrieve patient records by disease and/or procedures, to generate statistics about the type of patients treated, and to conduct research. Medical coders need to have extensive knowledge of medical terminology, anatomy, disease processes, and coding/classification systems. Medical coders are employed by hospitals, physicians offices and clinics, managed care companies, and insurance companies.

The American Health Information Management Association (AHIMA) strongly recommends that candidates interested in taking the Certified Coding Associate (CCA) exam have at least six months experience in a healthcare organization applying ICD-9-CM and CPT coding conventions and guidelines, or have completed either an AHIMA-approved coding certificate program, or other formal coding training program. The college plans to seek approval for this program from the AHIMA.

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 achieve a grade of C or better in all HIT courses.

BIO	111	Human Form and Function <i>or</i>	
BIO	124	Anatomy and Physiology .....	4-5
CIS	120	Introduction to Computers <i>or</i>	
AOS	112	Automated Office Technologies .....	3
CIS	119	Introduction to Office Software <i>or</i>	
CIS	230	Comprehensive Database .....	3
HIT	111	Medical Terminology .....	3
HIT	112	Health Care Delivery Systems .....	2
HIT	113	Ethical and 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	173	Medical Office Procedures .....	3
HIT	215	Medical Science .....	3
HIT	271	Advanced Coding .....	2
HIT	272	Reimbursement Systems in Healthcare .....	2
HIT	273	Professional Practice Experience in Medical Coding .....	2

Total Hours 39-40

## Medical Office Specialist

(Certificate)

Plan 21HO

Biological & Health Sciences Division

Room C140, (847) 543-2042

This certificate is designed to prepare students to work in the front office of a physician office or clinic. Medical office specialists need to have the knowledge and skills required of many office workers; in addition, they need specialized knowledge related to the medical setting. Students in the program will learn how to schedule appointments, arrange hospital tests and surgery, protect the confidentiality of patient records, transcribe letters and medical reports, and maintain accurate records.

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 achieve a grade of C or better in all HIT courses.

AOS	112	Automated Office Systems .....	3
AOS	175	Keyboarding Speed & Accuracy Building .....	2
AOS	214	Administrative Office Procedures .....	3
HIT	111	Medical Terminology .....	3
HIT	112	Health Care Delivery Systems .....	2
HIT	113	Ethical/Legal Aspects of Medical Records .....	2
HIT	114	Medical Transcription .....	2
HIT	119	Pharmacology .....	1
HIT	173	Medical Office Procedures .....	3
<b>Total Hours</b>			<b>21</b>

For more information on these programs students may contact the division office listed or the following faculty members. Faculty are available during scheduled office hours to advise students about program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Denise Anastasio	C143	(847) 543-2338	<a href="mailto:danastasio@clcillinois.edu">danastasio@clcillinois.edu</a>
Ellen Anderson	C143	(847) 543-2867	<a href="mailto:eanderson@clcillinois.edu">eanderson@clcillinois.edu</a>
Margaret Kyriakos	C143	(847) 543-2879	<a href="mailto:mkyriakos@clcillinois.edu">mkyriakos@clcillinois.edu</a>

## HORTICULTURE

(Associate in Applied Science)

Plan 21HA, 21HB, 21HC, 21HP

Biological & Health Sciences Division

Room C140, (847) 543-2042

The curriculum is designed to provide a foundation in one of four occupational areas: Floriculture, Landscape Design, Turf and Landscape 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 is provided for students with sophomore status, and is required of those students with no work experience in horticulture.

### General Requirements for all students:

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 & Behavior Sciences Elective .....	6
		Humanities & Fine Arts Elective .....	3
		Science and/or Math Elective .....	3
			<b>18</b>

### Horticulture Core Courses

(required for all HRT degree seeking students)

HRT	111	Basic Horticulture .....	3
HRT	112	Tree Identification .....	3
HRT	113	Shrub Identification .....	3
HRT	114	Soils, Fertilizers and Water .....	3
HRT	116	Entomology .....	3
HRT	119	Plant Pathology .....	3
HRT	217	Plant Propagation .....	3
			<b>21</b>

### Horticulture Program Options

(Choose one of the following options.)

#### Floriculture Option (Plan 21HA)

HRT	172	Interior Plant Maintenance .....	3
HRT	173	Perennial Flowers .....	3
HRT	174	Basic Floral Design .....	3
HRT	210	Greenhouse Crop Production .....	3
		Work Experience (Choose from EWE 220 or HRT 276) .....	3
		Horticulture or General Electives .....	6
			<b>21</b>



**Landscape Design Option (Plan 21HB)**

HRT 118	Landscape Graphics .....	3
HRT 213	Landscape Design .....	3
HRT 214	Landscape Construction .....	3
HRT 215	Computer Landscape Design .....	3
	Work Experience (Choose from EWE 220 or HRT 276) .....	3
	Horticulture or General Electives .....	6
		21

**Turf and Landscape Maintenance Option (Plan 21HC)**

HRT 110	Landscape Maintenance .....	3
HRT 173	Perennial Flowers .....	3
HRT 176	Small Engine Repair and Maintenance ....	3
HRT 212	Turf Management .....	3
	Work Experience (Choose from EWE 220, HRT 276) .....	3
	Horticulture or General Electives .....	6
		21

**Natural Areas Management Option (Plan 21HP)**

BIO 120	Environmental Biology .....	4
GEO 126	Geology of Illinois .....	2
BIO 126	Local Flora .....	3
GEO 224	Environmental Geology .....	3
HRT 216	Natural Areas Management .....	4
	Work Experience (choose from EWE 220 or HRT 276) .....	3
	Horticulture or General Elective .....	3
		22

Total Hours 60-61

**Arboriculture**

(Certificate)

**Plan 21HL**

HRT 110	Landscape Maintenance .....	3
HRT 111	Basic Horticulture .....	3
HRT 112	Tree Identification .....	3
HRT 116	Entomology .....	3
HRT 119	Plant Pathology .....	3
HRT 170	Arboriculture .....	3
	Total Hours	18

**Landscape Maintenance**

(Certificate)

**Plan 21HH**

HRT 110	Landscape Maintenance .....	3
HRT 112	Tree Identification .....	3
HRT 113	Shrub Identification .....	3
HRT 173	Perennial Flowers .....	3
HRT 176	Small Engine Repair and Maintenance ....	3
	Total Hours	15

**Floral Design**

(Certificate)

**Plan 21HI**

HRT 111	Basic Horticulture .....	3
HRT 172	Interior Plant Maintenance .....	3
HRT 174	Basic Floral Design .....	3
HRT 175	Advanced Floral Design .....	3
HRT 210	Greenhouse Crop Production .....	3
	Total Hours	15

**Interior Landscaping**

(Certificate)

**Plan 21HJ**

HRT 111	Basic Horticulture .....	3
HRT 114	Soils, Fertilizers and Water .....	3
HRT 116	Entomology .....	3
HRT 118	Landscape Graphics .....	3
HRT 119	Plant Pathology .....	3
HRT 172	Interior Plant Maintenance .....	3
HRT 174	Basic Floral Design .....	3
HRT 210	Greenhouse Crop Production .....	3
	Total Hours	24

## Associate in Applied Science and Career Certificates

### Natural Areas Management

(Certificate)

#### Plan 21HQ

HRT	111	Basic Horticulture .....	3
HRT	112	Tree Identification .....	3
HRT	113	Shrub Identification .....	3
BIO	120	Environmental Biology .....	4
GEO	126	Geology of Illinois .....	2
BIO	126	Local Flora .....	3
HRT	216	Natural Areas Management .....	4

Total Hours 22

### Exceptional Child Services Plan 25HB

#### General Education

ENG	121	English Composition I .....	3
CMM	111	Communication Skills <i>or</i>	
CMM	121	Fundamentals of Speech <i>or</i>	
CMM	128	Interviewing Practices .....	3
MTH	141	Quantitative Literacy <i>or</i>	
		Higher Level Mathematics <i>or</i>	
		Science Elective .....	3
PSY	121	Introduction to Psychology .....	3
PSY	222	Child Growth and Development .....	3
SOC	121	Introduction to Sociology .....	3
		Humanities & Fine Arts Elective.....	3

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For more information on these programs, students may contact the division office listed or the following faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Don Lloyd	1408	(847) 543-2881	<a href="mailto:dlloyd@clcillinois.edu">dlloyd@clcillinois.edu</a>
Mark Zampardo	1420	(847) 543-2320	<a href="mailto:mzampardo@clcillinois.edu">mzampardo@clcillinois.edu</a>

#### Human Services Core for Exceptional Child Services

HUS	121	Health and Nutrition .....	3
HUS	113	Group Processes .....	3
HUS	118	Professional Helping Skills .....	3
PSY	226	Adolescent Development .....	3
HUX	170	Introduction to Substance Abuse .....	3
SWK	121	Introduction to Social Work.....	3

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### HUMAN SERVICES PROGRAM

(Associate in Applied Science)  
Plans 25HB, 25HC, 25HD  
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 the exceptional child and adult-care programs provided through hospitals, nursing homes, institutions for the developmentally disabled, community human service programs, as well as treatment programs for alcohol and substance abuse. The degree-seeking student completes general education and HUS core courses, plus one of the three options. All students are encouraged to consult with the program coordinator. Human Services courses may transfer to four-year institutions with related programs.

The Human Services Program ASAAD degree and certificate options are accredited by the Illinois Alcohol and Other Drug Abuse Certification Agency (IAODAPCA) for the 2004-2005 and 2005-2006 academic years.

#### Exceptional Child Services

(Take 26 credit hours from the following list)

ART	125	Art for Elementary Teachers I .....	2
CRJ	121	Introduction to Criminal Justice .....	3
CRJ	124	Penology and Corrections .....	3
CRJ	229	Juvenile Delinquency .....	3
ECE	131	The Special Needs Child in ECE.....	3
ECE	216	Creative Activities I .....	3
*ECE	222	The Exceptional Child .....	3
*ECE	273	Child, Family, and Community <i>or</i>	
SOC	224	Sociology of the Family.....	3
*EDU	120	Observation and Guidance of Children ....	3
EDU	221	Introduction to Teaching .....	3
EDU	299	Special Topics in Education.....	1-3
ENG	249	Child and Young Adult Media .....	3
*HUS	170	Human Services Practicum I .....	4
*HUS	171	Human Services Practicum II .....	4
HUS	213	Mental Retardation.....	3
HUS	299	Special Topics in Human Services.....	1-3
PSY	221	Educational Psychology .....	3

Total Hours 65

\*Required Course

## Associate in Applied Science and Career Certificates

### Human Services – Adult Services Plan 25HC

#### General Education and Human Services Core

ENG 121	English Composition I .....	3
CMM 111	Communications Skills <i>or</i>	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 128	Interviewing Practices .....	3
PSY 121	Introduction to Psychology .....	3
SOC 121	Introduction to Sociology .....	3
MTH 141	Quantitative Literacy <i>or</i>	
	Higher Level Mathematics <i>or</i>	
	Science Elective .....	3
	Humanities & Fine Arts Elective .....	3
HUS 121	Health and Nutrition .....	3
HUS 113	Group Processes .....	3
HUS 118	Professional Helping Skills .....	3
HUX 170	Introduction to Substance Abuse .....	3
SOC 224	Sociology of the Family .....	3
SWK 121	Introduction to Social Work .....	3

#### Take two of the following three courses

HUS 231	Adult Development and Aging .....	3
PSY 222	Child Growth and Development .....	3
PSY 226	Adolescent Development .....	3
	<b>42</b>	

#### Adult Services Courses

(Take 22 credit hours from the following list)

HUS 114	Human Services Supervision .....	3
HUS 116	Principles of Foster Care .....	1
*HUS 170	Human Services Practicum I .....	4
*HUS 171	Human Services Practicum II .....	4
HUS 220	Principles of Residential Care .....	3
HUS 213	Mental Retardation .....	3
CRJ 117	Community – Based Corrections .....	3
CRJ 121	Introduction to Criminal Justice .....	3
CRJ 124	Penology and Corrections .....	3
HUS 299	Special Topics in Human Services .....	1-3
PRS 111	Survey of Rehabilitation Skills .....	3
PRS 112	Psychiatric Rehabilitation Skills .....	3
*PSY 223	Abnormal Psychology <i>or</i>	
SOC 223	Deviance .....	3

Total Hours 64

\* Required Courses

### Human Services – Alcohol, Substance Abuse, and Addictive Disorders (ASAAD) Plan 25HD

#### General Education and Human Services Core

ENG 121	English Composition I .....	3
CMM 111	Communications Skills <i>or</i>	
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 128	Interviewing Practices .....	3
PSY 121	Introduction to Psychology .....	3
SOC 121	Introduction to Sociology .....	3
MTH 141	Quantitative Literacy <i>or</i>	
	Higher Level Mathematics <i>or</i>	
	Science Elective .....	3
	Humanities & Fine Arts Elective .....	3
HUS 121	Health and Nutrition .....	3
HUS 113	Group Processes .....	3
HUS 118	Professional Helping Skills .....	3
HUX 170	Introduction to Substance Abuse .....	3
SOC 224	Sociology of the Family .....	3
SWK 121	Introduction to Social Work .....	3

#### Take two of the following three courses

HUS 231	Adult Development and Aging .....	3
PSY 222	Child Growth and Development .....	3
PSY 226	Adolescent Development .....	3
	<b>42</b>	

#### Alcohol, Substance Abuse, and Addictive Disorders Courses

HUX 171	Assessment and Diagnosis of Alcoholism & 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 Practicum I .....	5
HUX 272	Human Services Practicum II .....	5
	Electives .....	2

#### Electives (choose two credit hours from list below)

HUX 172	Other Addictive Disorders .....	2
HUX 178	Assessment & Treatment of Addictive Families .....	2
HUX 179	Psycho-Social Aspects of HIV .....	2
HUS 299	Special Topics .....	2

Total Hours 68

*Students who enter the ASAAD option should either have no history of alcohol, substance abuse or any other addictive disorders or have been recovering without relapse for at least one year. Students who do not meet one of these criteria may not be eligible to participate in required practica or to be certified to work in the field.*

**Human Services Program**

**(Certificate)  
Plan 25HF**

The certificate program is intended only 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.

**Required Courses**

ENG 121	English Composition I .....	3
PSY 121	Introduction to Psychology .....	3
PSY 222	Child Growth and Development .....	3
HUS 113	Group Processes .....	3
HUS 118	Professional Helping Skills .....	3
HUS 231	Adult Development and Aging .....	3
SOC 224	Sociology of the Family .....	3
SWK 121	Introduction to Social Work .....	3
		<u>24</u>

**Electives**

A minimum of 6 additional semester hours must be selected from one of the options in Human Services Program:

Exceptional Child Services; Adult Services. Substitutions may be made with coordinator or division approval .....	<u>6</u>
<b>Total Hours</b>	<b>30</b>

**Human Services Program**

**Alcohol, Substance Abuse and Addictive Disorders (ASAAD) Certificate • Plan 25HG**

In order to be admitted to this option, students must first meet with the program coordinator and must complete 18 credit hours of the prerequisite coursework.

According to IAODAPCA regulations, students desiring 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.

The prerequisite courses for completion are:

HUS 121	Health and Nutrition .....	3
HUS 113	Group Processes .....	3
HUS 118	Professional Helping Skills .....	3
SOC 224	Sociology of the Family .....	3
		<u>12</u>

**Must take two of the following three classes:**

PSY 222	Child Growth and Development .....	3
PSY 226	Adolescent Development .....	3
HUS 231	Adult Development and Aging .....	3
		<u>6</u>

Prerequisite courses will be waived with the permission of the Human Services Program Coordinator, upon submission and review of transcripts indicating their successful completion. Students needing to meet these prerequisites may take them concurrent with the courses required for the certificate.

**Alcohol, Substance Abuse and Addictive Disorders**

HUX 170	Introduction to Substance Abuse .....	3
HUX 171	Assessment and Diagnosis of Alcoholism & Substance Abuse Disorders .....	3
HUX 173	Special Populations and Addictive Disorders .....	2
HUX 174	Ethics, Law, Regulations, Records, and Documentation .....	2
HUX 175	Pharmacological & Other Medical Terminology .....	1
HUX 176	Advanced Counseling Skills for Addictive Disorders .....	3
HUX 177	Advanced Group Counseling Skills .....	3
HUX 271	Human Services Practicum I .....	5
HUX 272	Human Services Practicum II .....	5
	Electives .....	4
		<u>31</u>

**Electives (choose four credit hours from list below)**

HUX 172	Other Addictive Disorders .....	2
HUX 178	Assessment & Treatment of Addictive Families .....	2
HUX 179	Psycho-Social Aspects of HIV .....	2
HUS 299	Special Topics .....	2
		<u>Total 41-53</u>

Faculty who teach in this subject area are available during scheduled office hours to advise students about their program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Janet Mason	D122	(847) 543-2536	<a href="mailto:jmason@clcillinois.edu">jmason@clcillinois.edu</a>

# Associate in Applied Science and Career Certificates

## INDUSTRIAL MAINTENANCE AND REPAIR

(Certificate & A.A.S.)

Plan 24IC - Certificate

Plan 24ID - A.A.S.

Engineering, Math, Physical Science Division

Room B162, (847) 543-2044

This program prepares students for employment and advancement in various fields related to industrial maintenance.

Maintenance mechanics typically install, maintain, and repair machinery and equipment. A general certificate may be earned by completing the core courses. The associate degree program provides areas of concentration within the industrial maintenance field.

**Core Courses:** Required for Certificate or A.A.S. Degree

MTT 110	Blueprint Reading .....	3
MTH 114	Applied Mathematics I or higher level Math .....	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....	3
MCD 111	Manufacturing Processes .....	3
CAD 110	CAD/CAM Concepts .....	3
MTT 111	Machine Shop I .....	3
IMR 110	Industrial Pneumatics and Hydraulics .....	3
IMR 111	Machine Components and Repair .....	3
WLD 170	General Welding.....	2
RAC 174	Applied Electricity (for RAC concentration) <i>or</i> .....	4
ELT 170	DC Circuit Fundamentals <i>and</i> .....	2
ELC 172	Applied AC Circuit Theory .....	2
Total Hours		30

### Concentrations

In order to obtain an A.A.S. degree an additional 18 credit hours of technical courses must be taken along with the required additional general education courses. Courses are arranged by concentrations to allow the student to focus on a specific area of industrial maintenance.

### Machine Maintenance & Repair

IMR 112	Pump Overhaul and Repair .....	3
MTT 210	Machine Shop II.....	3
CNC 110	CNC Operations I .....	3
ELC 114	Motor & Machine Controls .....	3
	Technical Elective .....	6

### Electrical Maintenance & Repair

ELC 113	Basic Instrumentation and Shop Practice	2
ELC 114	Motor and Machine Controls .....	3
ELC 211	Electrical Machinery .....	3
	Technical Elective .....	10

### Welding

WLD 171	Gas Welding, Cutting, and Brazing .....	3
WLD 172	Shielded Metal Arc Welding .....	3
WLD 175	Gas Metal Arc Welding .....	3
	Technical Elective .....	9

### Refrigeration & Air Conditioning Maintenance & Repair

RAC 110	Theory of Refrigeration .....	4
RAC 113	Commercial Refrigeration Systems .....	4
RAC 119	Electric Motors and Controls .....	4
RAC 176	Certification Preparation .....	2
	Technical Elective .....	4

### Plumbing & Pipefitting

IMR 113	Plumbing & Pipefitting I .....	3
IMR 114	Plumbing & Pipefitting II .....	3
IMR 112	Pump Overhaul & Repair .....	3
	Technical Electives .....	9

### Additional General Education Requirements for A.A.S. Degree

CMM 111	Communications Skills .....	3
ECO 110	Economics for Business & Industry .....	3
	Social & Behavioral Sciences Elective .....	3
	Humanities & Fine Arts Elective .....	3

Total Hours 60

### Technical Electives

Technical electives may include courses from the above areas of concentration as well as those listed below. See an advisor for assistance in choosing courses related to your area of concentration and/or career goals. Prerequisites must be met.

EWE 220	Cooperative Work Experience I .....	1-4
ELC 171	Programmable Logic Controllers.....	3
ELC 211	Electrical Machinery .....	3
ELC 215	Power Transmission and Distribution .....	4
ELT 117	Industrial Digital Electronics I.....	3
ELT 118	Industrial Digital Electronics II .....	3
ELT 172	Applied Communications Circuits.....	3
IMR 115	Carpentry I .....	3
IMR 116	Carpentry II .....	3
MTT 210	Machine Shop II.....	3
MTT 212	Precision Machining/ NIMS Credentialing .....	3
CNC 210	CNC Operations II .....	3
MFG 210	Manufacturing Materials .....	3
MCD 112	Basic Metallurgy I .....	3
MCD 113	Basic Metallurgy II .....	3
MCD 114	Dimensional Metrology .....	3
PHY 120	Practical Aspects of Physics .....	4
RAC 117	Refrigeration Installation and Service Problems .....	4
RAC 118	Residential Heating Systems .....	4
ROB 111	Introduction to Robotics .....	3
ROB 112	Automated Systems Controls.....	3
WLD 174	Advanced Shielded Metal Arc Welding....	3
WLD 176	Welding Certification .....	1-3
WLD 178	Gas Tungsten Arc Welding .....	3

## Associate in Applied Science and Career Certificates

For more information on this course of study students may contact either the division office listed above or one of the following faculty member.

Name	Office	Phone Number	E-mail Address
Randall Roettger	HST150c	(847) 543-2512	<a href="mailto:roettger@clcollinois.edu">roettger@clcollinois.edu</a>

### LIBRARY TECHNICAL ASSISTANT

(Associate in Applied Science)

**Plan 23LC**

**Communication Arts, Humanities & Fine Arts Division  
Room B237, (847) 543-2040**

Library Technical Assistants work at the paraprofessional or preprofessional level in libraries. They are technical support staff members with specific library related skills. The courses will provide a broad foundation of knowledge which can apply to technical or public service work in academic, school, public, or special libraries. There is a heavy emphasis on skills related to automation of library processes and services.

#### First Semester

ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....	3
LTA 121	Introduction to Library Science .....	3
LTA 171	Audio-Visual Media and Equipment .....	3
CIS 120	Introduction to Computers .....	3
	Social & Behavioral Sciences Elective ....	3
		15

#### Second Semester

LTA 272	Cataloging and Classification .....	3
COM 111	Introduction to Multimedia .....	3
CMM 121	Fundamentals of Speech .....	3
	Social & Behavioral Sciences Elective ....	3
	Elective (listed below) .....	3
		15

#### Third Semester

LTA 172	Reference and Public Services I .....	3
LTA 273	Library Materials .....	3
COM 115	Internet Fundamentals .....	3
	Mathematics or Science Elective .....	3-4
ART 240	History of Art I <i>or</i>	
HUM 121	Introduction to Humanities I <i>or</i>	
HUM 125	Introduction to Fine Arts I <i>or</i>	
MUS 124	Introduction to Music .....	3
		15-16

#### Fourth Semester

LTA 277	Automation for Libraries .....	3
LTA 173	Reference and Public Services II .....	3
LTA 115	Supervised Field Practicum II .....	3
	Electives (from A.A.S. degree list) .....	6
		15

Total Hours 60-61

#### A.A.S. Degree Electives

LTA 279	Children's Library Services .....	3
ENG 249	Children and Young Adult Media .....	3
CIS 112	Introduction to Local Area Networking....	3
CIS 236	LAN Administration .....	3
CIS 119	Introduction to Office Software .....	3
COM 112	Multimedia Platforms .....	3
COM 171	Introduction to Computer Graphics .....	3
COM 215	Multimedia Presentations.....	3
CIS 290	Desktop Publishing .....	3
ART 222	Introduction to Computer Art .....	3

### Library Technical Assistant

(Certificate)

**Plan 23LH**

LTA 121	Introduction to Library Science .....	3
LTA 171	Audio-Visual Media and Equipment .....	3
LTA 273	Library Materials .....	3
LTA 272	Cataloging and Classification .....	3
LTA 277	Automation for Libraries .....	3
LTA 172	Reference and Public Services I .....	3
LTA 173	Reference and Public Services II.....	3
LTA 114	Supervised Field Practicum I.....	2
COM 115	Internet Fundamentals .....	3
	Electives (from certificate list below) .....	6

Total Hours 32

**LTA Certificate Electives are to be chosen from the following courses:**

LTA 279	Children's Library Services .....	3
ENG 249	Children and Young Adult Media .....	3
COM 111	Introduction to Multimedia .....	3
CIS 112	Introduction to Local Area Networking....	3
CIS 119	Introduction to Office Software .....	3
CIS 120	Introduction to Computers .....	3
CIS 236	LAN Administration .....	3
COM 112	Multimedia Platforms .....	3
COM 171	Introduction to Computer Graphics .....	3
COM 215	Multimedia Presentations. ....	3
CIS 290	Desktop Publishing .....	3
ART 222	Introduction to Computer Art .....	3

For more information on this course of study, students may contact the division office.

## Associate in Applied Science and Career Certificates

### MACHINE TOOL TRADES

(Certificates & A.A.S.)

**Plan 24MJ - Basic Machining Certificate**

**Plan 24SM - Machine Tool Trades Certificate**

**Plan 24SR - Tool and Mold Maker Certificate**

**Plan 24MD - A.A.S.**

**Engineering, Math., Physical Sciences Division  
Room B162, (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 credit is also available. Machine tool courses are approved by the United States Department of Labor, Bureau of Apprenticeship Training.



#### Phase I — Basic Machining Certificate

CNC	110	CNC Operations I .....	3
MTH	114	Applied Mathematics I.....	3
MTT	110	Machine Trades Blueprint Reading .....	3
MTT	111	Machine Shop I .....	3
MTT	210	Machine Shop II.....	3
<b>Total Hours</b>			<b>15</b>

#### Phase II — Machine Tool Trades Certificate

CNC	115	CNC Programming I <i>or</i>	
EWE	220	Cooperative Work Experience I.....	3
MCD	111	Manufacturing Processes .....	3
MCD	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
<b>Total Hours</b>			<b>35</b>

#### Phase III — Tool & Mold Maker Certificate

An advanced certificate in Tool and Mold Making is obtained by completing the courses listed above and the following. These courses may be taken prior to the courses listed above provided requisites have been met. Substitutions may be made with advisor approval.

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 & Fixture Design .....	3
<b>Total Hours</b>			<b>50</b>

#### Phase IV — Machine Tool Trades A.A.S. Degree

Students wishing to obtain an A.A.S. Degree must complete the following course requirements along with those required for the advanced certificate.

#### General Education Courses\*

ENG	120	Technical Composition I <i>or</i>	
ENG	121	English Composition I .....	3
CMM	111	Communications Skills .....	3
ECO	110	Economics for Business & Industry .....	3
		Social & Behavioral Sciences Elective ....	3
		Humanities & Fine Arts Elective.....	3
<b>Total Hours</b>			<b>15</b>
<b>Total Hours</b>			<b>65</b>

\*Refer to general education requirements for career programs on page 66.

For more information on this course of study students may contact either the division office listed above or one of the following faculty member.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Don Ruesch	HST150c	(847) 543-2506	<a href="mailto:druesch@clcillinois.edu">druesch@clcillinois.edu</a>

**MECHANICAL ENGINEERING TECHNOLOGY**

(Associate in Applied Science)

Plan 24MB

Engineering, Math, Physical Science Division

Room B162, (847) 543-2044

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, 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.

First Semester

EGR 121	Engineering Graphics.....	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I.....	3
MCD 111	Manufacturing Processes.....	3
MTH 117	Technical Mathematics I **.....	3-4
PHY 121	General Physics I.....	5
		17-18

Second Semester

CAD 117	Introduction to AutoCAD.....	3
CAD 173	_____ <i>or</i>	
CAD 176	_____.....	
EGR 115	Applied Mechanics: Statics.....	3
MTH 118	Technical Mathematics II**.....	3-4
CMM 111	Communications Skills <i>or</i>	
CMM 121	Fundamentals of Speech.....	3
		15-16

Third Semester

EGR 215	Mechanics of Materials for Technology ..	3
ECO 221	Principles of Economics I <i>or</i>	
ECO 110	Economics for Business and Industry .....	3
MCD 214	Mechanical Design & Drafting.....	3
PSY 121	Introduction to Psychology <i>or</i>	
PSY 122	Psychology in Business and Industry .....	3
	Technical Elective*.....	6
		18

Fourth Semester

MCD 212	Mechanisms.....	4
MCD 215	Machine Design.....	5
ELT 170	DC Circuit Fundamentals <i>and</i>	
ELC 172	Applied AC Circuit Theory <i>or</i>	
PHY 122	General Physics II.....	4-5
	Humanities & Fine Arts Elective.....	3
MTT 111	Machine Shop I.....	3
		19-20

Total Hours 69-72

\* **Technical Electives:**

A broad choice of technical electives is available. Students may choose the CAD option (program description follows) or choose electives from certain MCD, ELC, CAD, MTH, MFG, EWE or other technical courses. Students may obtain technical elective approval from the program coordinator.

\*\* For students who may pursue a Bachelors degree in mechanical engineering technology (BSMET) the following mathematics courses may be substituted:

- MTH 122 - College Algebra
- MTH 123 - Trigonometry

Please see an advisor in the Mechanical Engineering Technology area before selecting the above courses.

**Mechanical Engineering Technology - CAD Option**

(Associate in Applied Science)

Plan 24MQ

Engineering, Math., Physical Sciences Division

Room B162, (847) 543-2044

Students desiring the CAD option of the Mechanical Engineering Technology program must take 6 credit hours of CAD coursework in place of the technical electives listed in the Mechanical Engineering Technology program (Plan 24MB). Any two courses, totaling 6 credit hours, may be selected from the following group:

CAD 119	Introduction to Microstation.....	3
CAD 176	Introduction to PRO Engineer.....	3
CAD 177	Site Planning & Drafting.....	3
CAD 211	Mechanical Detailing.....	3
CAD 214	Architectoral Applications.....	3
CAD 217	AutoCAD II.....	3
CAD 273	Advanced CAD Specialization.....	1-3
		6

Note: The student should check course prerequisites before planning any combination of the above courses.

Total Hours for A.A.S. degree 70

## Mechanical Design Technology

(General Certificate)

Plan 24MI

ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....	3
MTH 117	Technical Mathematics I .....	3
PHY 121	General Physics I .....	5
EGR 121	Engineering Graphics .....	3
EGR 122	Descriptive Geometry .....	3
CAD 117	Introduction to AutoCAD .....	3
MCD 111	Manufacturing Processes .....	3
MCD 212	Mechanisms .....	4
MCD 214	Mechanical Design & Drafting .....	3
	Technical Electives .....	3
	<b>Total Hours</b>	<b>33</b>

For more information on this course of study students may contact either the division office listed above or one of the following faculty member.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Margie Porter	A220a	(847) 543-2904	<a href="mailto:margieporter@clcillinois.edu">margieporter@clcillinois.edu</a>

## MEDICAL IMAGING

(Associate in Applied Science)

Plan 21MI

Biological & Health Sciences Division  
Room C140, (847) 543-2042

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. To contact the JRCERT, the address is:

20 North Wacker Drive, Suite 900 • Chicago, IL 60606-2901  
(312) 704-5300 • E-Mail [jcert@mail.idt.net](mailto:jcert@mail.idt.net)

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 of 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. Provide the opportunity to explore advanced level imaging modalities.
4. Provide a general education component of approximately 20 hours which are recognized as transfer classes leading to a baccalaureate degree.
5. At least 75% of program graduates will pass the American Registry of Radiologic Technologists certifying examination on the first attempt.

Interested students may take MIM 110 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.

To be considered for admission to the Medical Imaging Program, you must:

1. **Attend a MIM information session scheduled. Sessions are schedule for the first Monday of each month (except January, June and August) for 2:00 p.m. in room B228. For additional information, 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 & 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 record documenting completion of an Associate Degree or Bachelor Degree. The transcript must indicate which degree you were awarded and the date.
  - C. Official transcripts (sent directly to CLC from appropriate institution) from any previous college(s) showing course work 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.
  - B. Language and Math Proficiency.
  - C. Cumulative GPA of 2.0 or above for any credit courses completed at CLC.

## Associate in Applied Science and Career Certificates

- 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.
- E. Credit for BIO 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.
- 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 Health Occupation Aptitude Examination.
- 4. Meet minimum technical performance standards as defined for the profession. A Statement of Performance Standards is published in the MIM program brochure.**

**Note:** Applicants can take the Health Occupation Aptitude Exam (HOAE) only twice per screening year. If taken more than two times, the selection committee will only consider the results of the first two exams.

Test scores more than five years old will not be considered.

**Screening Deadline:** 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

**A student must maintain a minimum grade of "C" in each Medical Imaging course to continue in and graduate from the program.**

### First Fall Semester

MIM 110	Introduction to Medical Imaging .....	3
MIM 111	Radiographic Anatomy & Positioning .....	5
MIM 112	Principles of Radiographic Exposure .....	3
MIM 170	Orientation to the Clinical Education Center .....	1
PSY 121	Introduction to Psychology .....	3
		15

### First Spring Semester

BIO 124	Anatomy and Physiology .....	5
ENG 121	English Composition I .....	3
MIM 113	Radiographic Anatomy & Positioning II ..	5
MIM 114	Clinical Practice I.....	3
		16

### First Summer Session

MIM 115	Clinical Practice II .....	3
MIM 116	Advanced Radiographic Procedures I .....	1
		4

### Second Fall Semester

MIM 210	Technical Aspects of Patient Care .....	2
MIM 211	Imaging Equipment .....	6
MIM 212	Clinical Practice III .....	3
	CMM Communications Elective (CMM 111, CMM 121, CMM 123, or CMM 128) .....	3
		14

### Second Spring Semester

MIM 214	Advanced Topics in Radiography .....	6
MIM 215	Clinical Practice IV .....	3
MIM 216	Computed Imaging.....	2
	Social & Behavioral Sciences Elective ....	3
	Humanities & Fine Arts Elective.....	3
		17

### Second Summer Session

MIM 271	Clinical Practice V .....	3
		3

Total Hours 69

### 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.

- A. 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.
- B. The possible risks to the embryo and fetus shall be reviewed and the review documentation 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.
- C. The student will decide and the program director document one of the following options:
  1. 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.

2. 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.
3. 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.*

**Technical Performance Standards**

Please read the following statements which describe the performance standards relative to Medical Imaging.

All interested students must meet the following performance standards:

- a. transport, move, lift or transfer patients from a wheelchair or litter to an x-ray table or to a patient's bed
- b. 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).
- c. physically lace patients in proper positions for x-ray examinations according to established procedures and standards of speed and accuracy.
- d. handle stressful situations related to technical, procedural or patient-care situations
- e. communicating effectively in order to explain and direct patients as it pertains to their radiologic examinations
- f. provide physical and emotional support to patients during radiographic procedures
- g. physically respond to situations requiring emergency care of patients until more qualified help can arrive
- h. visually review and evaluate radiographic images to identify shades of gray, proper patient positions, proper exposure factors, and other appropriate technical qualities.

For more information on this program students may contact the division office listed or one of the following faculty members. Faculty are available during scheduled office hours to advise students about program and career opportunities.

**Medical Imaging**

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Lynn Wiechert	B226	(847) 543-2880	lwiechert@clcollinois.edu

**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 and CT are advanced certificates and are open only to students who are currently certified radiographers, i.e. those who have already completed an accredited radiography program and have maintained certified status.

<b>First Semester (Fall of odd years)</b>			
MIM 251	MRI Physics & Instrumentation .....		3
MIM 253	MRI Procedures .....		2
MIM 272	MRI Practicum* .....		3
			<b>8</b>
<b>Second Semester</b>			
MIM 255	Sectional Anatomy & Pathology .....		4
MIM 272	MRI Practicum* .....		3
			<b>7</b>

\* 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 ARRT certification
  - D. Official copy of your ARRT certification scores (sent directly to CLC from ARRT).
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 & Records by the screening deadlines.

**CT** – The deadline is the first Wednesday in March of even years. If space is available in the program after the initial screening deadline, qualified students will be accepted in an order based on academic qualifications. All required materials must be submitted to the Office of Admission & Records by the screening deadlines

Interested students who have met the course prerequisites may take MIM 255 prior to being admitted to either 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 a Joint Education Agreement.

### 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 MRI and CT are advanced certificates and are open only to students who are currently certified radiographers, i.e. those who have already completed an accredited radiography program and have maintained certified status.

See Magnetic Resonance Imaging for screening requirements.

#### First Semester (Fall of even years)

MIM 252	CT Physics & Instrumentation.....	3
MIM 254	CT Procedures .....	2
		5

#### Second Semester

MIM 255	Sectional Anatomy & Pathology .....	4
MIM 273	CT Practicum* .....	3
Total Hours		7

\* 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.

**Students must maintain a minimum grade of "C" in each Medical Imaging course to continue in and graduate from the MRI or CT program. In addition, students must maintain a CLC GPA of 2.0 or higher.**

For more information on these programs, students may contact the division office listed or the Program Coordinator, Lynn Wiechert. Faculty are available during scheduled office hours to advise students about program and career opportunities.

Name	Office	Phone Number	E-mail Address
Lynn Wiechert	B226	(847) 543-2880	<a href="mailto:lwiechert@clcillinois.edu">lwiechert@clcillinois.edu</a>

## MULTIMEDIA COMMUNICATIONS

(Associate in Applied Science)

Plans 23TB

Communication Arts, Humanities & Fine Arts Division,  
Room B237, (847) 543-2040

The Multimedia Communications Associate in Applied Science Degree provides you with the technical communication skills you'll need to design and produce a variety of commercial, educational and entertaining multimedia products. These skills will require a demonstrable competency in technical writing, standard PC hardware/ software operations, Internet communications, graphic design, audio editing, video editing and multimedia authoring. Building on traditional concepts grounded in technical writing, graphic design, audio, and public speaking, Multimedia Communications seeks to extend conventional communication formats to the realm of electronic multimedia. Products will ultimately appear on computer screens, information kiosks, CD-ROMs, in online formats, or theater-like seminar environments. Using the Internet as a primary source, you'll also master the online research and communication skills you'll need to develop media projects, find materials, and keep up with industry developments.

## Associate in Applied Science and Career Certificates

### General Education Courses

ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....	3
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 122	Business and Professional Speaking <i>or</i>	
CMM 128	Interviewing Practices .....	3
ANT 121	Introduction to Anthropology <i>or</i>	
PSY 121	Introduction to Psychology <i>or</i>	
PSY 122	Psychology in Business & Industry .....	3
MTH 114	Applied Mathematics or higher (MTH 117, 121 or 122 recommended) ....	3
PHI 122	Logic <i>or</i>	
HUM 127	Critical Thinking <i>or</i> Humanities Elective .....	3
		15

### Core Courses

ENG 126	Advanced Composition: Scientific Technical Communications.....	3
ENG 220	Introduction to Scriptwriting for Video, TV, and Film <i>or</i>	
HUM 123	Introduction to Film <i>or</i>	
HUM 222	Film and Society <i>or</i>	
BUS 121	Introduction to Business <i>or</i> Dance or Music Elective .....	3
ART 111	Printing Production .....	3
ART 122	Basic Color and Design .....	3
ART 222	Introduction to Computer Art .....	3
COM 111	Introduction to Multimedia .....	3
COM 115	Internet Fundamentals .....	3
COM 116	Developing Web Pages .....	3
ENG 113	Technical Communications Practicum <i>or</i>	
EWE 220	Cooperative Work Experience <i>or</i>	
ENG 266	Professional Communication .....	3
		27

### Web Development Option • Plan 23TB

COM 216	Advanced Online Publishing .....	3
COM 218	Building Commercial Web Sites <i>or</i>	
COM 219	Building Instructional Web .....	3
COM 172	Graphics for the Web .....	1
COM 256	Web Editing .....	3
COM 257	Web Animation .....	3
COM, ART, CIS, or CAD electives .....		6
		19

Total Minimum hours 61

### Presentations Option • Plan 23TK

AOS 215	Presentation Software .....	2
COM 173	Introduction to Digital Sound .....	3
COM 277	CD ROM Development .....	3
ART 272	Introduction to Video Production.....	3
COM 257	Web Animation <i>or</i>	
CAD 179	CAD Animation and Rendering.....	3
COM, ART, CIS, or CAD electives .....		3
		17
Total Minimum hours		60

### CD ROM Development Option • Plan 23TL

COM 216	Advanced Online Publishing .....	3
COM 173	Introduction to Digital Sound .....	3
COM 277	CD ROM Development .....	3
COM 217	Multimedia Authoring <i>or</i>	
CAD 179	CAD Animation and Rendering.....	3
ART 272	Introduction to Video Production.....	3
COM 257	Web Animation .....	3
		21
Total Minimum hours		61

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## Multimedia Communications

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### (Certificate) Plan 23TH

#### Written Communications (12 hours)

ENG 120	Technical Composition I <i>or</i>	
ENG 121	Composition I.....	3
ENG 126	Advanced Composition: Scientific and Technical Communication .....	3
ENG 113	Technical Communication Practicum .....	3
ENG 266	Professional Communication .....	3
		12

#### Speech Communication (3 hours)

CMM 121	Fundamentals of Speech <i>or</i>	
CMM 122	Business and Professional Speaking .....	3
		3

#### Graphics (9 hours)

ART 122	Basic Color and Design .....	3
ART 111	Printing Production .....	3
ART 222	Introduction to Computer Art .....	3
		9

#### Multimedia Communications (12 hours)

COM 111	Introduction to Multimedia .....	3
COM 116	Developing Web Pages .....	3
COM 216	Advanced Online Publishing .....	3
COM Elective .....		3
		12

Total Hours 36

## Associate in Applied Science and Career Certificates

### Multimedia Presentations

#### (Certificate) Plan 23TE

COM 111	Introduction to Multimedia .....	3
AOS 215	Presentation Software .....	2
COM 277	CD Rom Development.....	3
ART 267	Introduction to Video Production.....	3
COM 173	Introduction to Digital Sound .....	3
Total Hours		14

### Internet Communications

#### (Certificate) Plan 23TD

COM 115	Internet Fundamentals .....	3
COM 116	Developing Web Pages .....	3
Total Hours		6

### Web Development

#### (Certificate) Plan 23TC

COM 111	Introduction to Multimedia .....	3
COM 115	Internet Fundamentals .....	3
COM 116	Developing Web Pages .....	3
COM 172	Graphics for the Web .....	1
ART 222	Introduction to Computer Art .....	3
COM 216	Advanced Online Publishing .....	3
COM 219	Building Instructional Web Sites <i>or</i>	
COM 218	Building Commercial Web Sites .....	3
COM 257	Web Animation .....	3
Total Hours		22

### CD Rom Development

#### (Certificate) Plan 23TJ

COM 111	Introduction to Multimedia .....	3
COM 173	Introduction to Digital Sound .....	3
ART 222	Introduction to Computer Art .....	3
ART 272	Introduction to Video Production.....	3
COM 277	CD Rom Development.....	3
COM 257	Web Animation .....	3
CAD 179	CAD Animation and Rendering <i>or</i>	
COM 217	Multimedia Authoring <i>or</i>	
ART 264	3D Computer Animation .....	3
Total Hours		21

For more information on these programs, students may contact the division office listed or one of the following faculty members.

Name	Office	Phone Number	E-mail Address
Judy Rosenberg	B252	(847) 543-2546	<a href="mailto:jrosenb@clcollinois.edu">jrosenb@clcollinois.edu</a>
Yang Xiang	D108	(847) 543-2503	<a href="mailto:yaisng@clcollinois.edu">yaisng@clcollinois.edu</a>

### NURSING

#### (Associate in Applied Science)

##### Plan 21NA

##### Nursing Education

**Room D208, (847) 543-2043**

The Associate Degree Program in Nursing prepares men and women 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 program is accredited by the National League for Nursing Accrediting Commission, 61 Broadway 33rd Floor, New York, NY 10006, (212) 363-5555, ext 153. [www.nlnac.org](http://www.nlnac.org). It is approved by the State of Illinois Department of Professional Regulation, 320 West Washington Street, Springfield, IL 62786, (217) 785-0800, [www.dpr.state.il.us](http://www.dpr.state.il.us). After the completion of the program, the graduate is eligible to write the National Council Licensure Examination for Registered Nursing and, if completed successfully, he or she may apply to the State of Illinois for licensure as a registered nurse.

Registered nurses must be licensed by the Illinois Department of Professional Regulation. To become licensed, applicants must graduate from an approved professional nursing education program, pass an examination for registered nursing, pay the required fees and satisfy requirements of a UCIA criminal history record check. Licenses must be renewed every two years.

The number of students that can be admitted to the first course in the sequence (Nursing 171) 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.

Proficiency examinations are available in NUR 171, 172, and 271 *for qualified candidates who have been admitted to the program.*

Preference will be given to residents of Community College District 532 (including other community college districts with which CLC has a Joint Educational Agreement).

## Associate in Applied Science and Career Certificates

To be considered for admission to the Registered Nursing Program, students must:

1. **Attend one Nursing Information Meeting: Meetings are scheduled for the first Tuesday of each month from 1:30-3:30 p.m. or 4:30-6:30 p.m. Please call the Office of the Director of Nursing in advance at (847) 543-2043 to confirm specific date and place.**
  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 & 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 record documenting completion of an Associate Degree or Bachelor Degree. The transcript must indicate which degree you were awarded and the date.
  - C. Official transcripts from any previous college(s) showing course work relevant to the ADN selection criteria, sent directly to CLC from the college(s).
  - D. Results of the NLN RN Pre-Admission Examination.
  - E. 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 and Math proficiency.
    - 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 algebra (Remedial or modified algebra will not count),
 

**OR** a grade of "C" or better in MTH 102 at CLC or an equivalent course from another accredited college with a grade of "C" or better.
    - E. A grade of "C" or better for two semesters (1 year) of high school chemistry,
 

**OR** a grade of "C" or better in CHM 120 or CHM 121 at CLC or an approved equivalent course from another accredited college with a grade of "C" or better.
    - F. A grade of "C" or better in BIO 121 at CLC or an equivalent course from another accredited college with a grade of "C" or better.
    - G. Completion of the National League for Nursing Pre-Admission Entrance Examination-RN with a percentile score at or above 30 in each test component (verbal ability, mathematics and science) AND a composite score at or above the 40th percentile.

**Note:** Applicants can take the NLN Pre-RN exam only twice between the 1st Wednesday in March of one year and the 1st Wednesday in March of the following year. If taken more than two times, the selection committee will only consider the results of the first two exams.

**Screening Deadlines:** First Wednesday in March and first Wednesday in September. If space is available in the program after the screening deadline, qualified students will be accepted in an order based on academic qualifications.

A student must maintain at least a grade of "C" in each nursing course to continue in and graduate from the program.

### First Semester

NUR 171	Nursing: Universal Self-Care.....	7
BIO 124	Anatomy and Physiology .....	5
PSY 121	Introduction to Psychology .....	3
		<b>15</b>

### Second Semester

NUR 172	Nursing: Developmental Self-Care .....	7
ENG 121	English Composition I .....	3
BIO 125	Introduction to Microbiology .....	4
CMM 127	Intercultural Communication .....	3
		<b>17</b>

### Third Semester

NUR 271	Nursing: Health Deviation Self-Care I ....	9
CMM 121	Fundamentals of Speech <i>or</i>	
CMM 123	Group Discussion <i>or</i>	
CMM 128	Interviewing Practices .....	3
SOC 121	Introduction to Sociology .....	3
		<b>15</b>

### Fourth Semester

NUR 272	Nursing: Health Deviation Self-Care II ....	9
	Humanities & Fine Arts Elective .....	3
	General Elective <sup>1</sup> .....	3
		<b>15</b>

Total Hours 62

<sup>1</sup> No course that was used to meet the nursing program screening requirements may be used as a general elective..

For more information on this program, students may contact the office of the Director of Nursing Education in Room D208A, (847) 543-2043, the Nursing Education office, D208, or the following faculty members. Faculty are available during scheduled office hours to advise students about program and career opportunities.

Name	Office	Phone Number	E-mail Address
Lucille Coleman	D217	(847) 543-2012	<a href="mailto:lc Coleman@clcillinois.edu">lc Coleman@clcillinois.edu</a>
Tana Durnbaugh	D213	(847) 543-2874	<a href="mailto:tdurnbaugh@clcillinois.edu">tdurnbaugh@clcillinois.edu</a>
Vicki Francis	D220	(847) 543-2331	<a href="mailto:vfrancis@clcillinois.edu">vfrancis@clcillinois.edu</a>
Nikki Hagen	D220	(847) 543-2871	<a href="mailto:nhagen@clcillinois.edu">nhagen@clcillinois.edu</a>
Willa Harrison	D218	(847) 543-2312	<a href="mailto:wharrison@clcillinois.edu">wharrison@clcillinois.edu</a>
Sherry Hernandez	D218	(847) 543-2873	<a href="mailto:shernandez@clcillinois.edu">shernandez@clcillinois.edu</a>
Barbara Hunt	D221	(847) 543-2332	<a href="mailto:bhunt@clcillinois.edu">bhunt@clcillinois.edu</a>
Barbara McNeill	D213	(847) 543-2333	<a href="mailto:bio579@clcillinois.edu">bio579@clcillinois.edu</a>
Carmella Mikol	D215	(847) 543-2329	<a href="mailto:cmikol@clcillinois.edu">cmikol@clcillinois.edu</a>
Peggy Welch	D217	(847) 543-2398	<a href="mailto:pwelch@clcillinois.edu">pwelch@clcillinois.edu</a>
Sue Wynn	D219	(847) 543-2870	<a href="mailto:swynn@clcillinois.edu">swynn@clcillinois.edu</a>

**Certified Nurse Assisting**

**(Certificate) • Plan 21NB**  
**Nursing Education, Room D208, (847) 543-2043**

This program prepares men and women for employment as nurse assistants helping those who provide patient care. While the majority of nurse assistants work in long-term care facilities, many are employed in hospitals and other care settings. Includes emphasis on basic nursing skills and related knowledge. Provides campus and clinical laboratory experiences. Focuses on the role of the nurse assistant in the health care team within legal and regulatory parameters.

This program is approved by the Illinois Department of Public Health, 525 West Jefferson, Springfield, IL 62761, (217) 785-5133. [www.idph.state.il.us](http://www.idph.state.il.us). Students must satisfy the state required theory and clinical hours of attendance. Students who fail to attend the first day of class will be dropped.

The State of Illinois Health Care Worker Background Check Act of 1995 requires the college to initiate a UCIA criminal history record check on all individuals registering for the program. The UCIA Criminal Background Check is required for the individual to work as a nursing assistant in Illinois. The Student Handbook contains a description of convictions which would disqualify a person from finding employment as a nursing assistant in the State of Illinois. Please consult the Nursing Education office (543-2043) for further clarification and information regarding this law.

Upon successful completion of this program, the student is eligible to take the state mandated written competency examination for Nurse Assistant Certification.

**Prerequisites:** Language proficiency or high school diploma or GED or Adult Education reading test, or ENG 93, or ENG 108 or ENG 109, or ENG 121 and at least 16 years of age.

**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
<b>Total Hours</b>	<b>7</b>

For more information on this program, students may contact the Nursing Education office or the following faculty members. Faculty are available during scheduled office hours to advise students about program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Tana Durnbaugh	D213	(847) 543-2874	<a href="mailto:tdurnbaugh@clcillinois.edu">tdurnbaugh@clcillinois.edu</a>
Imelda Forsberg	D211	(847) 543-2337	<a href="mailto:iforsberg@clcillinois.edu">iforsberg@clcillinois.edu</a>
Vicki Francis	D220	(847) 543-2331	<a href="mailto:vfrancis@clcillinois.edu">vfrancis@clcillinois.edu</a>
Willa Harrison	D218	(847) 543-2312	<a href="mailto:wharrison@clcillinois.edu">wharrison@clcillinois.edu</a>
Sherry Hernandez	D218	(847) 543-2873	<a href="mailto:shernandez@clcillinois.edu">shernandez@clcillinois.edu</a>

**PHLEBOTOMY TECHNICIAN**

**(Certificate)**  
**Plan 21MP**  
**Biological & Health Sciences Division**  
**Room C140, (847) 543-2042**

This certificate program 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 (8) hours a day, five days a week for three weeks (120 hours) at a clinical site during the daytime shift.

Students must demonstrate math and language proficiency prior to enrolling in MLT 110.

Students must have health insurance and satisfy phlebotomy health requirements prior to beginning MLT 116 - Phlebotomy Clinical.

This program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

Graduates of this program are eligible for registry by nationally recognized certifying agencies.

*A student must maintain at least a grade of "C" in each course to continue the program and obtain a phlebotomy certificate.*

**Certificate Requirements:**

To receive the Phlebotomy Certificate, a student must be a high school graduate or the equivalent and at least 18 years old, receive a minimum grade of "C" in the following MLT courses, and must maintain an overall CLC GPA of 2.0 or higher.

MLT 110 Introduction to Medical Laboratory Technology .....	2
MLT 115 Phlebotomy Techniques .....	2
MLT 116 Phlebotomy Clinical .....	2
<b>Total Hours</b>	<b>6</b>

For more information on this program students may contact the division office listed or the Program Coordinator, Reme Tesch. The coordinator is available during scheduled office hours to advise students about program and career opportunities.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Reme Tesch	B248	(847) 543-2878	<a href="mailto:rtesch@clcillinois.edu">rtesch@clcillinois.edu</a>

**REFRIGERATION & AIR CONDITIONING**

(Associate in Applied Science)

**Plan 24RB**

**Engineering, Math, Physical Sciences Division**

**Room B162, (847) 543-2044**

This 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.

**First Semester**

RAC 110	Theory of Refrigeration .....	4
RAC 174	Applied Electricity .....	4
MTH 115	Applied Mathematics II <i>or</i> higher level mathematics .....	3
ENG 120	Technical Composition I <i>or</i>	
ENG 121	English Composition I .....	3
RAC 176	Certification Preparation .....	2
		<hr/> 16

**Second Semester**

RAC 113	Commercial Refrigeration Systems .....	4
RAC 119	Electric Motors & Controls .....	4
RAC 112	Residential AC Systems .....	4
	Social & Behavioral Sciences Elective ....	3
		<hr/> 15

**Third Semester**

RAC 118	Residential Heating Systems .....	4
RAC 114	Commercial AC Systems .....	4
PHY 120	Practical Aspects of Physics .....	4
	Technical Elective' .....	2-4
		<hr/> 14-16

**Fourth Semester**

RAC 173	Air Movement & Ventilation .....	4
CMM 111	Communications Skills .....	3
RAC 117	Installation & Service Problem .....	4
ECO 110	Economics for Business & Industry .....	3
	Humanities & Fine Arts Elective .....	3
		<hr/> 17

**Total Hours 62-64**



**Refrigeration and Air Conditioning**

The two certificates allow students to specialize in Heating and Air Conditioning or Refrigeration and Air Conditioning. Both certificates require introductory courses in electricity, motors and controls, and theory of refrigeration system operation. Students are required to provide their own basic tools, and will be given 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.

## Associate in Applied Science and Career Certificates

### Heating & Air Conditioning

(Certificate)

#### Plan 24RI

RAC 110	Theory of Refrigeration .....	4
RAC 174	Applied Electricity .....	4
RAC 118	Residential Heating Systems .....	4
RAC 119	Electric Motors & Controls .....	4
RAC 173	Air Movement & Ventilation .....	4
RAC 115	Installation and Service Practices for Heating & Air Conditioning .....	4
RAC 112	Residential AC Systems .....	4
RAC 176	Certification Preparation .....	2
	Technical Electives <sup>1</sup> .....	4
	Total Hours	34

### Refrigeration & Air Conditioning

(Certificate)

#### Plan 24RH

RAC 110	Theory, of Refrigeration .....	4
RAC 174	Applied Electricity .....	4
RAC 113	Commercial Refrigeration Systems .....	4
RAC 119	Electric Motors & Controls .....	4
RAC 117	Installation & Service Problems .....	4
RAC 176	Certification Preparation .....	2
	Technical Electives <sup>1</sup> .....	12
	Total Hours	34

### Commercial Refrigeration Technician

(Certificate)

#### Plan 24RK

RAC 110	Theory of Refrigeration .....	4
RAC 113	Commercial Refrigeration .....	4
RAC 174	Applied Electricity .....	4
	Total Hours	12

### Electrical Troubleshooting Technician

(Certificate)

#### Plan 24RL

RAC 110	Theory of Refrigeration .....	4
RAC 119	Motors and Controls .....	4
RAC 174	Applied Electricity .....	4
	Total Hours	12

### Residential Air Conditioning Specialist

(Certificate)

#### Plan 24RN

RAC 110	Theory of Refrigeration .....	4
RAC 112	Residential Air Conditioning .....	4
RAC 174	Applied Electricity .....	4
RAC 176	Certification Preparation .....	2
	Total Hours	14

### Residential Air Conditioning Technician

(Certificate)

#### Plan 24RM

RAC 110	Theory of Refrigeration .....	4
RAC 112	Residential Air Conditioning .....	4
RAC 174	Applied Electricity .....	4
	Total Hours	12

### Residential Heating Technician

(Certificate)

#### Plan 24RJ

RAC 110	Theory of Refrigeration .....	4
RAC 118	Residential Heating .....	4
RAC 174	Applied Electricity .....	4
	Total Hours	12

<sup>1</sup>Technical Electives must have previous RAC advisor approval. Typically technical electives are to be chosen from the following: RAC prefix courses including RAC 111, 171, 172, and 175, EWE 220 Cooperative Work Experience I, and ELC 171 Programmable Logic Controllers.

For more information on this course of study students may contact either the division office listed or one of the following faculty members.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Al Levandowski	HST 165A	(847) 543-2549	<a href="mailto:alevandowski@clcillinois.edu">alevandowski@clcillinois.edu</a>

### SURGICAL TECHNOLOGY

(Certificate)

Plan 21SD

Biological & Health Sciences Division

Room C140, (847) 543-2042

Surgical technologists are allied health professionals who are an integral part of 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 room suites for each surgical case of the day, organize the sterile supplies and equipment, and maintain the quality, safety, and efficiency of the sterile field throughout the operation.

Technologists might also be involved in transporting patients to 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 surgery, technologists must anticipate the needs of the surgeon by watching the progress of the surgical case and knowing the steps of the procedure. They are accountable for care of the surgical instrumentation and equipment before, during, and at the end of surgical cases.

The Surgical Technology certificate is a four-semester sequence (including two summer terms) that prepares students to work in medical facilities as surgical technologists. Graduates of the program are qualified to take the national certification examination given by the Liaison Council on Certification for the Surgical Technologist (LCC-ST).

#### Program Accreditation

The Association of Surgical Technologists (AST) requires that surgical technologists who are applying for certification for the first time complete 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.

#### Physical and Emotional Ability Performance Standards

Students must meet the following physical and emotional ability standards to satisfactorily perform in the Surgical Technology program:

1. 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.
2. Have the ability to lift and carry objects weighing up to 50 pounds.
3. Be able to push or pull a wheelchair, cart, or gurney.
4. Have adequate hearing which permits the individual to communicate in a rational and coherent manner with others in the English language.
5. 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, performing surgical technology procedures, and for documentation.
6. Adapt effectively to environments with high stress to insure client safety.
7. Respond in an emotionally controlled manner in learning situations.
8. Be able to stand and walk 4 to 8 or more hours per clinical session.

Please contact the SRG Coordinator, Soheila Kayoud at (847) 543-2776 or your instructor if you have questions regarding your personal situation and these standards.

#### Physical Demands for the Surgical Technology

##### *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 lbs. of force

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 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.

To be considered for admission to the Surgical Technology certificate 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. Meetings are scheduled for 5:30 p.m. on the first Thursday of every month (except January, June, and July) in Room D204.**

- 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 & 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 record documenting completion of an Associate Degree or Bachelor Degree. The transcript must indicate which degree you were awarded and the date.
  - C. Official transcripts from any previous college(s) sent directly to CLC from the college(s).
  - D. Official report of your Health Occupations Aptitude Exam (HOAE) scores sent directly to CLC.
  - E. 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 and Math proficiency.
- C. Completion of the Health Occupations Aptitude Exam.
- D. Attend a surgical technology information session. Sessions are scheduled for the first Thursday of every month (except January, June and August) for 5:30 p.m. in D204.

**Note:** Applicants can take the Health Occupation Aptitude Exam (HOAE) only twice per screening year. If taken more than two times, the selection committee will only consider the results of the first two exams.

Test scores more than five years old will not be considered.

**Screening Deadline:** The deadline is the first Wednesday in February. 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 & 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.

<b>First Summer Semester</b>			
BIO	111	Human Form & Function <i>or</i>	
BIO	124	Anatomy & Physiology .....	4-5
			4-5
<b>Fall Semester</b>			
HIT	111	Medical Terminology .....	3
HIT	119	Pharmacology .....	1
SRG	110	Introduction to Surgical Technology .....	5
SRG	111	Practice Principles of Surgical Technology .....	5
			14
<b>Spring Semester</b>			
SRG	112	Surgical Procedures I .....	6
SRG	113	Surgical Procedures II .....	6
SRG	116	Introduction to Microbiology and Pathophysiology .....	3
			15
<b>Second Summer Semester</b>			
SRG	114	Surgical Technology Seminar .....	3
SRG	115	Surgical Technology Internship .....	3
			6

Total Hours 39-40

For more information on this program, students may contact the division office listed or the coordinator, Soheila Kayoud.

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Sohila Kayoud	B248	(847) 543-2776	skayoud@clcillinois.edu

**TECHNICAL COMMUNICATION**

(Associate in Applied Science)

Plan 23TA

Communication Arts, Humanities & Fine Arts Division  
Room B237, (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.

	<b>Hours Required</b>
Written Communications .....	15
Speech Communication .....	3
Social Science .....	6
Mathematics .....	6
Humanities and Fine Arts .....	3
Data/Word Processing .....	4
Graphics .....	6
Technical specialization in no more than two technical areas .....	15
General electives (as approved by advisor).....	2

**Phase One:** (complete these courses before advancing to next phase)

Written Communication (3 hours)	
*ENG 120 Technical Composition I .....	3
Mathematics Elective (3-4 hours)	
(MTH 117, 141 or 122 recommended) .....	3-4

Graphics (2-4 hours)	
ART 129 Introduction to Photography I <i>or</i>	
ART 222 Introduction to Computer Art <i>or</i>	
DFT 111 Drafting I, <i>or</i>	
ELT 111 Electronic Drafting, <i>or</i>	
EGR 121 Engineering Graphics.....	2-5

Social Sciences (3 hours)	
PSY 122 Psychology in Business and Industry .....	3

Technical Specialty (3-6 hours) .....	3-6
	15-21

**Phase Two:** (begin after finishing all courses in Phase One)

Written Communication (3 hours)	
ENG 121 English Composition I .....	3
Speech Communication (3 hours)	
CMM 121 Fundamentals of Speech, <i>or</i>	
CMM 128 Interviewing Practices .....	3
Mathematics Elective (3-4 hours)	
(MTH 118, MTH 123 or MTH 222 recommended) .....	3-4
Humanities and Fine Arts (3 hours)	
PHI 122 Logic <i>or</i>	
HUM 127 Critical Thinking <i>or</i>	
Humanities & Fine Arts Elective .....	3
Technical Specialty (3-7 hours) .....	3-7
	15-20

**Phase Three:** (begin after finishing all courses in Phase Two)

Written Communication (3 hours)	
*ENG 126 Advanced Composition: Scientific and Technical Communications .....	3
Social & Behavioral Sciences Elective .....	3
Graphics (3 hours)	
*ART 111 Printing Production .....	3
Data/Word Processing (4 hours)	
AOS Elective .....	1-4
CIS Elective or COM Elective.....	1-4
Technical Specialty (3-6 hours) .....	3-6
	16-19

\* Required core course

**Phase Four:** (begin after finishing all courses in Phase Three)

Written Communication (6 hours)	
*ENG 113 Technical Communication Practicum <i>or</i> .....	3
*EWE 220 Cooperative Work Experience I <i>and</i>	
ENG 266 Professional Communication .....	3-4

NOTE: At this point the required total of 60 hours can be made up by taking additional approved mathematics, graphics or technical specialty electives.

Total Hours 60

**Choosing a Technical Specialty**

Students who pursue a degree in Technical Communication may choose to specialize in a technical field such as engineering, data processing, electronics or software development. A technical specialty for students interested in careers in advertising, sales management, sales promotion, publicity or public relations is called marketing communications. Students wishing to specialize in marketing communications should select 15-20 hours from these courses:

- BUS 122 Principles of Marketing
- BUS 213 Principles of Salesmanship
- BUS 214 Advertising
- \*BUS 217 Marketing Communications
- BUS 212 Industrial Marketing

\*Required

**Choosing a dual degree**

A student may elect to receive two Associate Degrees, one in Technical Communication and one in a technical field (such as electronics, engineering, etc.). This option is possible because many of the same general education courses are required in both programs, and because 15-20 credit hours of technically specialized courses count towards the A.A.S. in Technical Communication. Thus, a student may achieve this degree in connection with another degree program by adding the necessary written communications and graphics courses.

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**Technical Communication**

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(Certificate) • Plan 23TG

Written Communications (15 hours)		
*ENG 120	Technical Composition I .....	3
*ENG 126	Advanced Composition: Scientific and Technical Communication .....	3
*ENG 113	Technical Communication Practicum .....	3
ENG 266	Professional Communication .....	3
ENG 121	English Composition I .....	3
Speech Communication (3 hours)		
CMM 128	Interviewing Practices .....	3
Graphics (8 hours)		
*ART 111	Printing Production .....	3
CIS 290	Desktop Publishing .....	3
ART 222	Introduction to Computer Art .....	3
Elective (3 hours)		
	Technical Specialty .....	3
	<b>Total Hours</b>	<b>29</b>

\*Required core course

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**Professional Technical Communication**

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(Certificate)

Plan 23TI

Available to students who have already completed a degree in another field, and wish to retrain and re-enter the job force.

ENG 120	Technical Composition I .....	3
ENG 126	Advanced Composition:Scientific and Technical Composition .....	3
ENG 266	Professional Communication .....	3
ENG 113	Technical Communication Practicum .....	3
ART 111	Printing Production .....	3
COM 116	Developing Web Pages .....	3
	<b>Total Hours</b>	<b>18</b>

For more information on this program, students may contact the division office listed, or the following faculty member:

<u>Name</u>	<u>Office</u>	<u>Phone Number</u>	<u>E-mail Address</u>
Judy Rosenberg	B252	(847) 543-2546	<a href="mailto:jrosenb@clcollinois.edu">jrosenb@clcollinois.edu</a>

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**WELDING**

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(Certificate)

Plan 24WL

Engineering, Math, Physical Science Division  
Room B162, (847) 543-2044

This certificate program and the specialty certificates prepares the student for employment and advancement in welding and welding related occupations. Advanced standing in the program can be arranged for experienced welders.

**Phase One**

WLD 170	General Welding.....	2
WLD 171	Gas Welding, Cutting and Brazing .....	3
WLD 172	Shielded Metal Arc Welding .....	3
WLD 113	Welding Blueprint Reading .....	3
MCD 112	Basic Metallurgy .....	3
MTH 114	Applied Mathematics I.....	3
		<b>17</b>

## Associate in Applied Science and Career Certificates

### Phase Two

WLD 174	Advanced Shielded Metal Arc Welding....	3
WLD 175	Gas Metal Arc Welding .....	3
WLD 176	Welding Certification .....	1-3
WLD 117	Applied Fabricating & Processing.....	3
WLD 178	Gas Tungsten Arc Welding .....	3
MCD 111	Manufacturing Processes <i>or</i>	
MCD 113	Basic Metallurgy II .....	3
	Technical Elective* .....	2-3
		18-21

Total Hours 35-38

\*Electives may be chosen from the following with advisor approval.

DFT 111	Drafting I
CAD 110	CAD/CAM Concepts
EGR 121	Engineering Graphics
ELC 172	Applied AC Circuit Theory
ELT 170	DC Circuit Fundamentals
EWE 220	Cooperative Work Experience I
IMR 111	Machine Components and Repair
IMR 113	Plumbing and Pipefitting I
MTT 111	Machine Shop I
ROB 111	Introduction to Robotics

### Welding Specialty Certificates

Each of the three "specialty" certificates allows an individual to attain proficiency to meet more specific job requirements or career objectives in welding and welding related occupations.

#### Gas Tungsten Arc Welding (Specialty Certificate)

##### Plan 24WM

WLD 170	General Welding.....	2
WLD 113	Welding Blueprint Reading .....	3
MTH 114	Applied Mathematics I.....	3
WLD 171	Gas Welding, Cutting and Brazing .....	3
WLD 176	Welding Certification .....	1-3
WLD 117	Applied Fabricating & Processing .....	3
WLD 178	Gas Tungsten Arc Welding .....	3
		Total Hours 18-20

#### Gas Metal Arc Welding (Specialty Certificate)

##### Plan 24WN

WLD 170	General Welding.....	2
WLD 113	Welding Blueprint Reading .....	3
MTH 114	Applied Mathematics I.....	3
WLD 175	Gas Metal Arc Welding .....	3
WLD 176	Welding Certification .....	1-3
WLD 117	Applied Fabricating & Processing .....	3
		Total Hours 15-17

For more information on this course of study students may contact the division office.

#### Shielded Metal Arc Welding (Specialty Certificate)

##### Plan 24WO

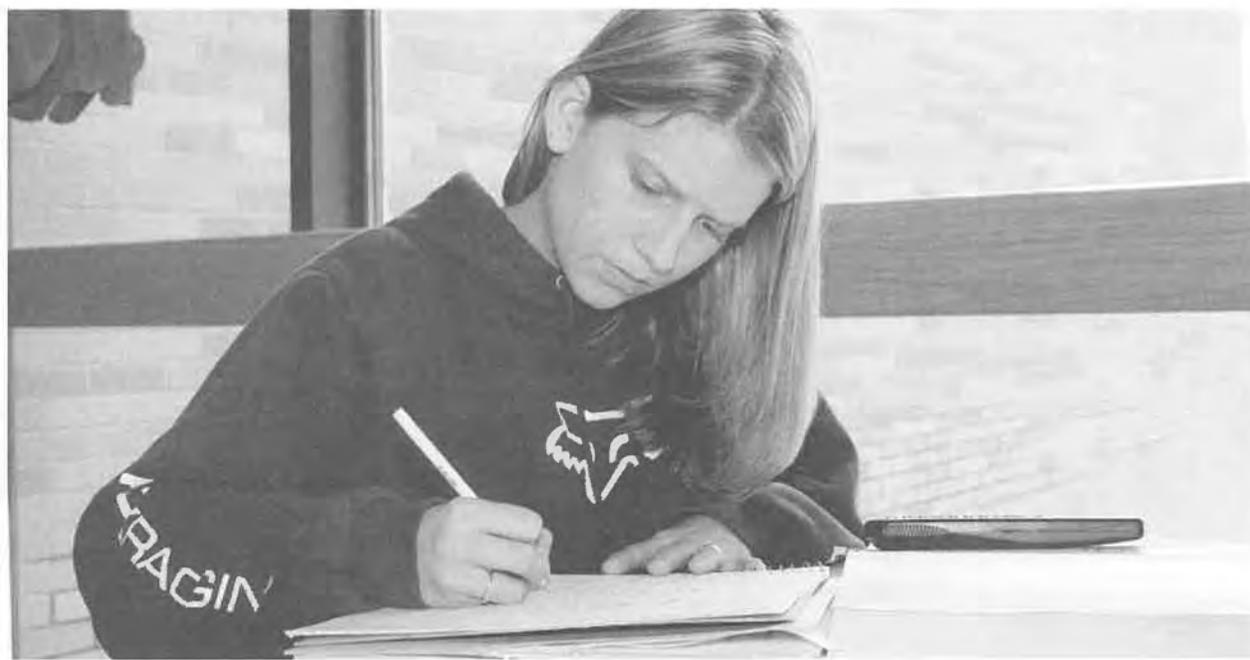
WLD 170	General Welding.....	2
WLD 113	Welding Blueprint Reading .....	3
MTH 114	Applied Mathematics I.....	3
WLD 172	Shielded Metal Arc Welding .....	3
WLD 174	Advanced Shielded Metal Arc Welding....	3
WLD 176	Welding Certification .....	1-3
WLD 117	Applied Fabricating & Processing .....	3
		Total Hours 18-20

For more information on this course of study students may contact the division office.

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## ***COURSE INFORMATION***

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## ***AND DESCRIPTIONS***

### 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 basic skills 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 three 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 divisional dean or seek the instructor's permission to enter a course.

*Co-requisites* are other courses, knowledge, skills, or permissions that must be taken or acquired either simultaneously with or previous to the course in question.

## Sample Course Listing

course prefix	course number	course title	hours of lecture per week	hours of lab per week	semester hours of credit
ACC 111		Office Accounting (3-0)			3 hours

**IAI S1 900N - Illinois Articulation Initiative  
General Education Number  
IAI Number**

## ACCOUNTING (ACC)

Business Division, Room A143, (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 and Math Proficiency

**ACC 113 Financial Statement Analysis (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. 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 (3-0) 3 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

**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*

**ACC 122 Managerial Accounting (4-0) 4 Hours**

This course emphasizes Managerial Accounting, focusing on the internal rather than the external aspects of business transactions. This course is for students seeking an AAS accounting degree or following a transfer program. Students pursuing an AAS non-accounting degree could be taking ACC 113. It is recommended that the students have completed an introductory microcomputer course such as CIS 119 or CIS 120 or DPR 175.

*Note:* Minimum time for classwork and homework is 12-15 hours per week.

*Prerequisite:* ACC 121 (C or better)

*Course fee*

**ACC 171 Accounting Information and Computer Systems (3-0) 2 Hours**

The course covers the financial accounting cycle using an information systems approach. Business documents will be used to generate business transactions. Students will learn to use an integrated accounting software package.

*Prerequisites:* ACC 113 (C or better) or ACC 121 (C or better) - AND - CIS 119 or CIS 120

*Course fee*

**ACC 172 Capstone Experience - Accounting Clerk Certificate (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.

*Prerequisite:* ACC 112 and ACC 113 and ACC 114 and ACC 171 and AOS 111 and AOS 122 and CIS 119

**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.

*Note:* This course is for serious students and will require approximately three hours of homework for each hour in class.

*Prerequisite:* ACC 113 or ACC 121

## Accounting (ACC) Administrative Office Systems (AOS)

### ACC 213 Federal Tax Accounting II (3-0) 3 Hours

This course represents an introduction to corporate, partnership, trust, estate and exempt entity taxation. The student will become familiar with various related subjects including Alternative Minimum Tax, Accumulated Earnings Tax, Gift and Estate Tax and International Taxation. The overall emphasis of the course will be on corporate taxation and related effects to shareholders.

*Prerequisite:* ACC 212 (C or better)

### ACC 214 Cost Accounting I (3-0) 3 Hours

Cost Accounting as a tool for management is emphasized throughout the course. Students will study topics such as cost-volume-profit relationships, budgeting, standard costs, responsibility accounting and job-order and process costing. Traditional methodology is emphasized. Contemporary methodology and concepts relating to ABC and JIT accounting are introduced.

*Prerequisite:* ACC 122 (C or better)

### 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 (ACC 121 and ACC 122) is recommended, grade of "C" or better is required.

*Prerequisite:* ACC 122

### 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)

### ACC 271 Auditing (3-0) 3 Hours

An intensive study of auditing theory and procedures involving the topical areas of audit reporting, auditing standards and evidence, statistical sampling, evaluation of the control structure, and electronic data processing. The legal and ethical dimensions of auditing will also be examined with emphasis on how government affects financial reporting through court decisions, federal securities laws, the SEC, the Foreign Corrupt Practices Act and the Treadway Commission Report.

*Prerequisite:* ACC 222 (C or better)

## ADMINISTRATIVE OFFICE SYSTEMS (AOS)

Business Division, Room A143, (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. Topics include a review of punctuation, document formatting, and techniques in composing effective business letters, memoranda, electronic messages, employment letters, and resumes. Students will learn how to write clearly and concisely.

*Prerequisite:* Language Proficiency

*Course fee*

### AOS 112 Automated Office Technologies (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 128 and AOS 172

*Course fee*

**AOS 118 Advanced Word Processing/  
Desktop Publishing (2-0) 2 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, timesteps, 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**

Application of arithmetic in business. 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 and Math Proficiency

**AOS 128 Intermediate Keyboarding (3-2) 4 Hours**

Intermediate Keyboarding focuses on two goals: increasing speed/accuracy on straight-copy timings and increasing the production rate of basic office documents. The formatting of commonly used office documents is covered thoroughly.

*Note:* This course includes out-of-class assignments.

*Prerequisite:* Language Proficiency and AOS 171 or AOS 175 or permission of instructor

*Course fee*

**AOS 170 Computer Keyboarding I (1.5-1) 2 Hours**

Computer Keyboarding I meets the needs of individuals seeking basic keyboarding skills for 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. Once the keyboard is learned, emphasis will be placed on building speed and accuracy. *Note:* This course includes weekly out-of-class assignments.

*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. The numeric/symbolic keyboard and proper formatting of basic business documents used in today's offices will be introduced. *Note:* This course includes weekly out-of-class assignments.

*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. 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 one goal: increasing keyboarding speed and accuracy on straight-copy timings. *Note:* This course includes weekly out-of-class assignments.

*Course fee*

*May be taken twice for credit toward degree*

**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 (2-0) 2 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*

## Administrative Office Systems (AOS) Adult Basic Education (ABE)

### 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 CIS 119

### 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.

*Note:* This course includes weekly out-of-class assignments.

*Prerequisite:* AOS 128

*Course fee*

### AOS 225 Practicum in Secretarial Science (0-15) 3 Hours

Practicum is designed for secretarial students who have at least two years of full-time secretarial experience and are presently employed in that field. Use of projects oriented to various interests of individual students in solving present-day office problems and how various decisions will affect them.

*Prerequisite:* Last semester standing

### 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.

*Course fee*

*May be taken four times, but any topic only once*

## ADULT BASIC EDUCATION (ABE)

Adult and Community Education Division,  
Building 4, (847) 543-2021

The Adult Education program is funded in part by grants from the federal government totalling \$294,520. This represents 15% of the total cost of the program.

ABE courses do not apply to any associate degree or career certificate.

ADULT BASIC EDUCATION (ABE) includes individualized programs of real-life applications in reading, writing, and mathematics for students who have not completed a high school diploma. ABE 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.

### 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 progress at their own rates through basic reading, writing and arithmetic skills.

*Course fee*

*May be taken four times for credit*

### 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.

*Course fee*

*May be taken four times for credit toward degree*

### ABE 3 Pre General Education 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 G.E.D. program.

*Course fee*

*May be taken four times for credit toward degree*

### 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.

*Course fee*

*May be taken four times for credit*

## Adult Basic Education (ABE) Adult Education (ADE)

### **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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*May be taken four times for credit*

## ADULT EDUCATION (ADE)

Adult and Community Education 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 regular 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

*Course fee*

*May be taken four times for credit*

## Adult Education (ADE)

### **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.

*Course fee*

*May be taken four times for credit*

### **ADE 17 Reading Power (Variable) 1-4 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.

*Course fee*

*May be taken four times for credit*

### **ADE 19 Basic Math Review (1-0) 1 Hour**

This course is geared toward the ABE, GED or returning students who needs specialized help in math. The review will start with whole numbers. Additional areas to be covered include addition, subtraction, multiplication, division, fractions, and decimals.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*May be taken four times for credit*

**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.

*Course fee*

*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.

*Course fee*

*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

*Course fee*

*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.

*Course fee*

*May be taken four times for credit*

**ADE 910 Practical Math I (2-0) 2 Hours**

This course covers the basic arithmetic functions necessary for home, business and industry.

*Course fee*

**ADE 911 Practical Math II (2-0) 2 Hours**

This course covers the advanced arithmetic functions to manage a home, or work in business and industry.

*Course fee*

**ADE 912 Level One Algebra (2-0) 2 Hours**

This course will cover integers, variables, and linear equations. Emphasis will be placed on word problems.

*Course fee*

## Adult Education (ADE)

### **ADE 913 Level Two Algebra (2-0) 2 Hours**

This course will cover the use of binomials, factoring, solving quadratic equations, and quadratic formula.

*Course fee*

### **ADE 920 English Fundamentals (2-0) 2 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 924 American Literature (2-0) 2 Hours**

This independent study course will introduce students to three genres of American literature: The Short Story, The Nonfiction Essay, and The Novel. The course is designed to improve the students' reading, thinking, writing, and vocabulary skills through the study of American literature.

*Course fee*

### **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.

*Course fee*

### **ADE 930 U. S. History through the Civil War (2-0) 2 Hours**

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.

*Course fee*

### **ADE 931 U. S. History Civil War to the Present (2-0) 2 Hours**

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.

*Course fee*

### **ADE 940 General Science (2-0) 2 Hours**

This course will provide an overview of general science concepts in biology, chemistry, earth science, and physics.

*Course fee*

### **ADE 941 General Science II (2-0) 2 Hours**

General Science II is an extension of General Science I. In this course, students will study the plant and animal kingdoms, and human biology.

*Course fee*

### **ADE 950 Consumer Education (2-0) 2 Hours**

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.

*Course fee*

### **ADE 951 Family Life I (2-0) 2 Hours**

This independent study course is designed to give students insight into single, married, and family life.

*Course fee*

### **ADE 952 Health I (2-0) 2 Hours**

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.

*Course fee*

### **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 (2-0) 2 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.

*Course fee*

### **ADE 956 Psychology I (2-0) 2 Hours**

Psychology I is an independent study course designed to introduce students to the basic principles and applications of psychology.

*Course fee*

### **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.

*Course fee*

### **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.

**ANTHROPOLOGY (ANT)**

Social Science Division, Room A244, (847) 543-2047

**ANT 121 Introduction to Anthropology (3-0) 3 Hours**

This course is an introductory survey of basic concepts in the fields of anthropological concern: archaeology, physical anthropology, and cultural anthropology. Emphasis in this study of human behavior shall be on the more physical aspects of the evolutionary development of man.

*Prerequisite:* Language Proficiency

**IAI: S1 902**

**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 are examined, compared and evaluated. It explores the cultural determinations of individual human behavior and means of adaptation.

*Prerequisite:* Language Proficiency

**IAI: S1 901N**

**ANT 222 Introduction to Physical Anthropology (3-0) 3 Hours**

This course is an introductory survey of basic concepts, theories, and information addressing physical anthropology. Specifically, this course explores human origins, primate and human fossil records, population genetics, human adaptation and variation, and humankind's place in the world ecology.

*Prerequisite:* Language Proficiency

**IAI: S1 902**

**ANT 224 Introduction to Archaeology (3-0) 3 Hours**

This course is a survey of the concepts and methods essential to the study of prehistoric cultures with emphasis on the prehistoric cultures of the Americas. 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: S1 903**

**ANT 226 Field Methods (3-0) 3 Hours**

This course is an introduction to the techniques of field archaeology and includes instruction in excavation and recording, exploratory surveys and mapping, project planning, research design, laboratory analysis, and preparation of research reports. The class will be conducted at an approved archaeological site, such as the Mayflower Archaeological Preserve in Belize, Central America. The course will be comprised of actual field work, along with lectures and discussion.

*Prerequisite:* Language Proficiency

**ANT 228 Cross-Cultural Relationships (3-0) 3 Hours**

Combining the anthropological traditions of a strong cross-cultural approach and a focus on small-scale cultures, 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 of responsibilities of small and large-scale cultures.

*Prerequisite:* Language Proficiency

**IAI: S1 904D**

**ARABIC (ARA)**

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (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**

A continuation of ARA 221, aiming at developing a command of Arabic structure, fluency in reading, speaking, comprehension, and writing skills.

*Prerequisite:* ARA 221

## **ARCHITECTURAL TECHNOLOGY (ARC)**

Engineering, Math, & Physical Sciences Division,  
Room B162, (847) 543-2044

### **ARC 121 Architectural Graphics (2-3) 3 Hours**

A course which presents the fundamental principles of graphical communications for the Architectural student in architectural terms. It enables development of student skills in the use of technical drawing equipment as well as Computer Aided Design (CAD) software to draw various architectural drawings.

*Note:* High school drafting and/or CAD experience is recommended but not required.

*Course fee*

### **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 and Math Proficiency

*Course fee*

*Offered fall and spring only.*

### **ARC 171 Architectural Working Drawings (2-3) 3 Hours**

Provides the student with the knowledge and skills necessary to draw detailed building construction documents. Students draw site plans, foundation plans, floor plans, elevations, wall sections, full sections, and various details.

*Prerequisite:* ARC 121

*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 215

### **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 215

### **ARC 215 Architectural Planning (2-3) 3 Hours**

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.

*Course fee*

### **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 "Artists Conception."

*Prerequisite:* ARC 121

*Course fee*

*Offered spring only.*

*Offered even years only.*

### **ARC 228 History of Architecture (3-0) 3 Hours**

Study of key monuments in Western architecture from Egyptian period to contemporary, including social and economic conditions which produce style. Emphasis is placed on illustrative local architecture.

*Prerequisite:* Language Proficiency

### **ARC 271 Architectural Working Drawings II (2-3) 3 Hours**

Course designed to prepare students to complete working drawings of commercial construction including: site plans, foundation systems, floor systems, wall systems, roofing and mechanical systems in buildings.

*Prerequisite:* ARC 121

*Course fee*

*Offered spring only.*

*Offered odd years only.*

## **ART (ART)**

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (847) 543-2040

### **ART 111 Printing Production (3-0) 3 Hours**

Survey of the graphic arts process from the written copy to the printed piece, using technical aspects of digital print production. Overview of electronic print technology. Students will learn terminology to communicate with others in the field. Specific units on using drawing software (object-oriented graphics) and paint software (bitmapped images), graphic design, typography, and color. First half of course covers computer prepress including all software needed for art preparation. Second half covers printing methods.

*Course fee*



**ART 121 Introduction to Art (3-0) 3 Hours**  
 This course will introduce students to an appreciation of the visual arts through an intercultural, social/historical approach. The course will also emphasize the nature of the creative process, integrating a study of the conceptual principles, with methods and materials which influence artistic critical thinking, problem solving, exploration, and discovery.  
*Prerequisite:* Language Proficiency  
**IAI: F2 900**

**ART 122 Basic Color and Design (0-6) 3 Hours**  
 A basic studio experience for those interested in fine arts, commercial arts or art education. The student carries out a series of problems relating to the elements and principles of design. The course develops the students' organizational abilities and technical skills. Focus on verbal and visual definitions of terms and concepts used by artists and designers.

**ART 123 Color and Design Techniques (0-6) 3 Hours**  
 A studio experience: continuation of ART 122 using a variety of media and concentration on technique and color development.  
*Prerequisite:* ART 122

**ART 124 Basic Drawing (0-6) 3 Hours**  
 Introduction to basic objective drawing techniques using a variety of materials including pencil, crayon, brush, pen and ink.

**ART 125 Art for Elementary Teachers I (0-4) 2 Hours**  
 A basic studio experience open to all students but designed for those majoring in general elementary education and those who are already teaching or working in some capacity with children at the elementary level. The student will be given practical experience in carrying out a series of problems and projects relating to elements and principles of design, various craft forms, materials and methods used in the teaching of art.  
*Note:* This course is primarily designed as a methods course for those people who would wish to become elementary art teachers.  
*Course fee*

**ART 126 Art for Elementary Teachers II (0-4) 2 Hours**  
 Designed as a continuation of ART 125 to provide additional studio experience in greater depth, especially in the areas of sculpture, ceramics and printmaking.  
*Prerequisite:* ART 125  
*Course fee*

**ART 127 Intermediate Drawing (0-6) 3 Hours**  
 Advanced problems of graphic communication through exploration of varied media and techniques.  
*Prerequisite:* ART 124  
*Offered fall and spring only.*

**ART 128 Watercolor (0-4) 2 Hours**  
 Understanding of methods and techniques of water-soluble painting media and developing problems of composition.

**ART 129 Introduction to Photography I (2-2) 3 Hours**  
 An introductory course in black and white photography. Principles of the photographic process from picture taking to printing are introduced with emphasis placed on historical photographs to illustrate these principles. The course includes the proper use of cameras, darkroom equipment, film processing, printing and elements of photographic composition. Designed for students with little or no background in photography.  
*Note:* Students are required to provide their own 35mm camera which can be manually operated.  
*Course fee*

**ART 149 Photographic Electronic Imaging I (3-2) 3 Hours**  
 Photographic Electronic Imaging I covers the production, manipulation, and output of photographic images using the computer and digital imaging equipment. Students will learn to output images to paper print or to a multimedia presentation format. The course is concerned with photographic image manipulation within the context of the student's own personal aesthetic, from a historical perspective, and as part of the legal, moral, and social issues facing today's world. Possibilities for various commercial and fine arts applications will be assessed, including website development, video, advertising and illustration purposes, fine art prints, mixed media artwork, and multimedia presentations.  
*Course fee*

## Art (ART)

### **ART 220 Advanced Watercolor (0-4) 2 Hours**

This course is a continuation of beginning watercolor with emphasis on advanced investigation of aesthetic concerns of water-based media. This investigation will include 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.

### **ART 221 Advanced Design (0-6) 3 Hours**

Studio experience and study of three dimensional materials, forms, and concepts.

*Note: Offered spring only.*

*Prerequisite: ART 122*

*Offered fall only.*

### **ART 222 Introduction to Computer Art (0-6) 3 Hours**

This course presents a computer software-based approach to visual image manipulation and generation. It includes 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.

*Course fee*

### **ART 223 Introduction to Sculpture (0-6) 3 Hours**

An introduction to the basic materials and techniques of the sculptor in the creation of three-dimensional forms.

*Course fee*

*Offered fall and spring only.*

### **ART 224 Beginning Painting (0-6) 3 Hours**

Understanding of methods and techniques for the various painting media and developing problems of composition.

### **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.

*Prerequisite: ART 122 or ART 124*

*Course fee*

*Offered fall only.*

### **ART 226 Introduction to Ceramics (0-6) 3 Hours**

This course is designed to teach students basic pottery hand building, wheel throwing and glazing techniques.

*Course fee*

*Offered fall and spring only.*

### **ART 227 Advanced Painting (0-6) 3 Hours**

Further study of methods and techniques of various painting media as well as problems of composition.

*Prerequisite: ART 224*

### **ART 228 Intermediate Sculpture (0-6) 3 Hours**

Continues an understanding of the development of materials and processes necessary to transform ideas and concepts into three-dimensional forms. Technical information in materials and processes of welding, casting, and carving will be included.

*Prerequisite: ART 223*

*Course fee*

### **ART 229 Introduction to Photography II (2-2) 3 Hours**

Advanced technical and artistic comprehension of black and white photography will continue through camera and darkroom techniques and references to the history of photography. The student will develop skills through the development of a portfolio.

*Note: Students are expected to provide their own 35 mm camera which can be manually operated.*

*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.

*Prerequisite: Language Proficiency*

*Offered fall only.*

**IAI: F2 901**

### **ART 241 History of Art II (3-0) 3 Hours**

A survey of the history of the civilizations, countries, and culture areas from the dawn of the Renaissance tradition in Italy through the first nine decades of the 19th century in Western Europe, Asia, India, Africa, MesoAmerica/AmerIndian and the Middle East by means of exposure to specific works of art and architecture.

*Prerequisite: Language Proficiency*

*Offered spring only.*

**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.

*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*

**ART 244 Color Photography (2-2) 3 Hours**

This is a course in color photography, which covers color theory, color darkroom procedures, color filtration, and the historical and technical developments of color photography. Students will provide a camera and color darkroom materials for use in completing course assignments.

*Prerequisite:* ART 129

**ART 245 Introduction to Jewelry (0-6) 3 Hours**

A beginning course in the design and fabrication of small three-dimensional objects. Emphasis will be on gaining an understanding of the aesthetic concerns of small scale metal work and the skills and techniques of producing jewelry as art. Students will design and learn processes while developing a sensitivity to techniques and ideas, while producing works that stress craftsmanship. Fundamentally, this course is an extension of sculpture and design in the third dimension into a utilitarian form; a balance between aesthetics and technique.

*Course fee*

**ART 246 Intermediate Ceramics (0-6) 3 Hours**

To familiarize the student with advanced techniques and principles of the clay medium; to develop style and personal statement by the student using these techniques and principles.

*Prerequisite:* ART 226

*Course fee*

**ART 247 Advanced Ceramics (0-6) 3 Hours**

The advanced class emphasizes individual proficiency with continued work on the potter's wheel, handbuilding techniques, kiln firing, glaze calculation and application.

*Prerequisite:* ART246

*Course fee*

**ART 248 Individual Art Projects (0-6) 3 Hours**

This course is designed to give the student with sophomore standing an ability to pursue interests in specific areas of art with instructor supervision in such cases where the student has already completed the course offerings in that area.

*Note:* Must have successfully completed all possible courses in a discipline, e. g., painting, printmaking, sculpture, design, drawing, photography or art history.

*Prerequisite:* Language Proficiency

*Course fee*

**ART 249 Advanced Photographic Electronic Imaging (2-2) 3 Hours**

This course covers techniques used by fine art and commercial photographers and graphic designers to enhance their images through manipulation, as well as the output of photographic images using the computer and digital imaging equipment. The course concentrates on building a portfolio that demonstrates a thorough knowledge of digital techniques such as paintstrokes, pastel and pencil marks, airbrush and shadowmaking, contour shading, and textural additions. Students will learn to retouch montage images and color prints using computer software. Output of images to paper

print, or use in a multimedia presentation format will be the final objective. Possibilities for various commercial and fine arts applications will be assessed, including website development, video, advertising and illustration purposes, fine art prints, mixed media artwork, and multimedia presentations. Students will use their own cameras to produce images and import them into the computer for manipulation.

*Prerequisite:* Language Proficiency and ART 149

**ART 260 History of Photography (3-0) 3 Hours**

This course traces the historical development of photography as an art form from 1839 to the present. Discussions will begin with the pre-history of the camera obscura through the discoveries of the inventors of photography as an art form. Discussions will include critical analysis of types of photographs and aesthetic movements in photography. Multicultural/intercultural aspects, as well as contributions of women to the photographic arts, will be discussed. Contributions of photography to the other arts also will be included.

**IAI: F2 904**

**ART 262 Commercial Photography (2-2) 3 Hours**

This is a course designed to instruct the photography student in specialized techniques used in the creation of saleable photographs, and use of photographic equipment for revealing the form and demonstration of products. Students will also learn techniques of documentary and journalistic photography. Students will explore the use of photographic lighting as a creative tool for product enhancement. Students will explore use of tungsten light and electronic flash in a studio setting.

*Prerequisite:* ART 129 and ART 229

**ART 262 Commercial Photography (2-2) 3 Hours**

This is a course designed to instruct the photography student in specialized techniques used in the creation of saleable photographs, and use of photographic equipment for revealing the form and demonstration of products. Students will also learn techniques of documentary and journalistic photography. Students will explore the use of photographic lighting as a creative tool for product enhancement. Students will explore use of tungsten light and electronic flash in a studio setting.

*Prerequisite:* ART 129

**ART 263 2D Computer Animation (0-6) 3 Hours**

This is a hands-on intermediate level course in the creation and development of 2D animations. Through various assigned projects the student will be exposed to the history of animation, theory, image manipulation, drawing, video, audio and other various animation techniques. This intermediate level course will provide the student with knowledge of computer animation on a simple and complex level. The course will explore the incorporation of different mediums within computer animation, and the student will gain an understanding of professional technical skills within their lessons and independent projects.

## Art (ART) Astronomy (AST)

### ART 264 3D Computer Animation (0-6) 3 Hours

This is a hands-on intermediate level course in the creation and development of 3D animations. Through various assigned projects the student will be exposed to the history of animation, theory, image manipulation, lighting, wire frames, vector points, drawing, video, audio and other various animation techniques. This course will provide the student with the knowledge of computer animation on a simple and complex level. The course will explore the incorporation of different mediums within computer animation, and the student will gain an understanding of professional technical skills from their lessons and independent projects.

*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.

*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.

*Prerequisite:* ART 280

### 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.

*Prerequisite:* ART 272 and ART 280

### 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 the ProTools software package. ProTools is one of the leading industry standard programs used to digitize audio signals. Altering soundwaves, audio sync with video, and other various techniques will be explored within the software program. 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.

### 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 the Pro Tools software package. Pro Tools is one of the leading industry standard programs used to digitize audio signals. Altering sound waves, audio sync with video and other various techniques will be explored within the software program. 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.

## ASTRONOMY (AST)

Engineering, Math, & Physical Sciences Division,  
Room B162, (847) 543-2044

### AST 121 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 and Math Proficiency

*Course fee*

**IAI: P1 906L**

## AUTOMOTIVE COLLISION REPAIR (ABR)

Engineering, Math, & Physical Sciences Division,  
Room B162, (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. It will also introduce the student to the theory and the basic fundamentals of sheet metal 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

*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 118 Automotive Plastic Repair (1-2) 2 Hours**

A study of automotive plastics. The course focuses on identification and repair methods of all common types of plastics use in today's automobiles. Hands-on experience is utilized.

*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. This course will use PPG automotive finish materials.

*Course fee*

*Offered fall and spring only.*

### **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. This course will use

Sikkens paint materials.

*Prerequisite:* ABR 130

*Course fee*

*Offered fall only.*

### **ABR 133 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. This course will use Dupont paint materials.

*Prerequisite:* ABR 131

*Course fee*

*Offered spring only.*

*Offered even years only.*

### **ABR 137 Mechanical and Electrical Systems I (3-4) 5 Hours**

This course will cover basic understanding of steering and suspension systems, drive trains and braking systems as it applies to a collision repair technician. Classroom and hands on will be utilized.

*Course fee*

*Offered fall only.*

### **ABR 138 Mechanical and Electrical Systems II (3-4) 5 Hours**

This course will give students the basic knowledge about air conditioning systems, cooling systems, fuel and exhaust systems, and automotive electronic systems, as they apply to a collision repair technician. Classroom and hands on are utilized.

*Course fee*

*Offered spring only.*

### **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*

*Offered fall only.*

### **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.

*Offered fall only.*

### **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

*Offered spring only.*

## Automotive Collision Repair (ABR) Automotive Technology (AUT)

### **ABR 235 Automotive Damage Estimating and Shop Procedures (2-2) 3 Hours**

This course is for students who are interested in pursuing a career within the insurance industry as a damage estimator, or a career as a collision shop manager/estimator. The course will focus on identifying types of damage, preparing a written estimate, and computerized estimating systems. The course will also include training in body shop management and operation. Customer relation issues and skills will also be discussed. Classroom and hands on will be used.

*Prerequisite:* ABR 110

*Course fee*

*Offered spring only.*

## **AUTOMOTIVE TECHNOLOGY (AUT)**

Engineering, Math, & Physical Sciences Division,  
Room B162, (847) 543-2044

### **AUT 170 General Automotive (4-0) 4 Hours**

This course is designed for the beginning student in the Automotive Technology program or for the student who is interested in gaining a general knowledge of the major systems of the automobile. This course can be taken in place of AUT 174 to fulfill the requirements of the certificate or Associate of Applied Science degree program. This course 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.

### **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.

*Course fee*

### **AUT 172 Auto Electrical I (4-2) 5 Hours**

Gives the beginning automotive technician the opportunity to gain an understanding of the theory, operation, and testing of basic electricity, the automotive battery, starting systems, charging systems, and ignition systems.

*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.

*Prerequisite:* AUT 172

*Course fee*

### **AUT 174 Applied Mechanics (Auto) (4-0) 4 Hours**

Gives the beginning automotive technician the opportunity to increase his knowledge of certain mechanical actions and reactions related to the automobile, proper and safe use of hand and precision tools, and the use of common automotive supplies, such as bolts, gaskets, etc.

### **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.

*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.

*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 271 Fuel Systems I (4-2) 5 Hours**

This course provides the student with a thorough understanding of the principles of carburetion, exhaust systems, fuel delivery systems, emission control systems. It also introduces electronic engine control systems.

*Course fee*

### **AUT 272 Fuel Systems II (4-2) 5 Hours**

This course emphasizes the comprehensive diagnosis, testing, and service of fuel injection systems, including electronic engine control sensors and actuators and emission controls. Includes the basic operation of OBD-II (On Board Diagnostics).

*Prerequisite:* AUT 271

*Course fee*

### **AUT 273 Transmissions I (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.

*Course fee*

### **AUT 274 Transmissions II (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.

*Course fee*

**AUT 275 Air Conditioning and Heating (4-2) 5 Hours**

This course gives the beginning 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.

*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.

*Prerequisite:* AUT 173

*Corequisite:* AUT 272

*Course fee*

**AUT 277 Advanced Specialization (2-7) 5 Hours**

This course gives the student the opportunity to practice operations in a shop environment and situation similar to the repair industry.

*Prerequisite/Corequisite:* 20 credits in AUT 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.

*Note:* Required, local field trips are scheduled for approximately half of the lab periods. Students are responsible for their own transportation to and from the field sites. This course is recommended for non-science majors who need a one-semester lab science course.

*Prerequisite:* Language and Math Proficiency

*Course fee*

**IAI: L1 905L**

**BIO 121 General Biology I (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:* This course is intended for science majors and allied health students. Knowledge of chemistry is helpful.

*Prerequisites:* MTH 102 (C or better) or an appropriate score on the Math Placement Test - AND - Language Proficiency

*Course fee*

**IAI: L1 900L**

**BIO 122 General Biology II (3-2) 4 Hours**

This course examines embryology, evolution, molecular genetics, and ecology. Laboratory work includes both experimental and computer-based laboratory exercises.

*Prerequisite:* BIO 121 (C or better)

*Course fee*

**BIO 124 Anatomy and Physiology (3-4) 5 Hours**

This course introduces the structure and function of the human body. All of the major body systems (skeletal, muscular, nervous, endocrine, etc.) are covered. Human skeletons, human models, preserved sheep organs, and pre-dissected cats are used in labs as representatives of human anatomy. Physiology exercises such as EKG (ECG) and urinalysis will be performed.

*Prerequisite:* BIO 121 (C or better)

*Course fee*

**BIO 125 Introduction to Microbiology (2-4) 4 Hours**

This course examines microorganisms with an emphasis on the bacterial groups. Morphology, principle activities and properties of bacteria, yeasts, molds, viruses, selected algae, and protozoans 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 121 (C or better)

*Course fee*

**BIO 126 Local Flora (2-2) 3 Hours**

This course introduces lab and field identification of plants of northeastern Illinois. Students use taxonomic keys and make useful collections of plants from various habitats.

*Prerequisite:* Language and Math Proficiency

*Course fee*

**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 and Math Proficiency

*Course fee*

**IAI: L1 907**

## Biology (BIO) Building Construction Technology (BCT)

### **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 Issues (3-0) 3 Hours**

This 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.

*Prerequisite:* Language and Math Proficiency

**IAI: L1 905**

### **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.

*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 121 (C or better)

*Course fee*

*Offered spring only.*

### **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 121, or HRT 111 (C or better in any one)

*Course fee*

*Offered fall only.*

### **BIO 224 Human Heredity and Evolution (3-2) 4 Hours**

This course examines cell structure and function, the nature of the gene, Mendelian genetics, hereditary disorders, genetic counseling, evolution, eugenics, and genetic manipulation.

*Prerequisite:* Language and Math Proficiency

*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.

*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*

## BUILDING CONSTRUCTION TECHNOLOGY (BCT)

Engineering, Math, & Physical Sciences Division,  
Room B162, (847) 543-2044

### **BCT 111 Construction Layout (2-3) 3 Hours**

Theory, principles and techniques of construction layout. Includes field procedures in fundamental surveying as well as site, foundation and frame layout.

*Note:* MTH 115, MTH 117 or equivalent is recommended.

*Prerequisite:* Language and Math Proficiency

*Course fee*

*Offered summer only.*

### **BCT 112 Construction Blueprint Reading (3-0) 3 Hours**

Designed to provide the learner with an understanding of the fundamental principles of building construction. Emphasis is placed on the development of skills in reading and interpreting construction working drawings.

*Note:* Students enrolled in BCT program should take this course first semester.

*Prerequisite:* Math Proficiency

### **BCT 113 Construction Materials (3-0) 3 Hours**

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.

*Prerequisite:* Language and Math Proficiency

*Course fee*

*Offered fall only.*

### **BCT 114 Materials Testing (1-3) 2 Hours**

Testing of materials used in various fields of construction. Principle means of performing destructive and nondestructive tests are shown, then performed; results are analyzed.

*Prerequisite:* MTH 117

*Course fee*

### **BCT 117 Construction Methods (3-0) 3 Hours**

An overview and analysis of conventional construction methods. The application of building materials in various construction systems is emphasized.

*Note:* BCT 113 or equivalent construction experience is recommended.

*Prerequisite:* Language and Math Proficiency

*Course fee*

*Offered spring only.*

### **BCT 118 Mechanical and Electrical Equipment (3-0) 3 Hours**

The equipment and materials used in the electrical, mechanical and environmental systems of buildings.

*Note:* BCT 112 or equivalent construction experience is recommended.

*Prerequisite:* MTH 117 (C or better) or appropriate score on the Math Placement Test

*Offered spring only.*

### **BCT 119 Specifications and Building Codes (3-0) 3 Hours**

Construction specifications and how they relate to national, state, and local building codes. Topics related to job safety and OSHA regulations will also be discussed.

*Note:* BCT 112 or equivalent construction experience is recommended.

*Prerequisite:* Language and Math Proficiency

*Offered spring only.*

### **BCT 211 Job Scheduling and Control (3-0) 3 Hours**

Provides the learner with fundamental knowledge and skill in job planning and scheduling. Student participants 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.

*Note:* BCT 112 or equivalent construction experience and prior experience with Windows applications, specifically spreadsheet applications such as MS Excel, is also strongly recommended

*Prerequisite:* Language and Math Proficiency

*Course fee*

*Offered spring only.*

### **BCT 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.

*Prerequisite:* Language and Math Proficiency

*Offered fall only.*

*Offered odd years only.*

### **BCT 213 Construction Law and Documents (3-0) 3 Hours**

The legal aspects of construction law and contract documents. State and federal construction related documents are also discussed.

*Note:* BCT 112 or equivalent construction experience is recommended.

*Prerequisite:* Language and Math Proficiency

*Offered fall only.*

### **BCT 214 Construction Estimating (3-0) 3 Hours**

The theory, principles and techniques of construction material, quantity analysis (take-off). The analysis of labor, overhead and profit is also introduced.

*Note:* BCT 112 or equivalent construction experience is recommended.

*Prerequisite:* Language and Math Proficiency

*Course fee*

*Offered fall only.*

### **BCT 215 Construction Management (3-0) 3 Hours**

Basic construction management tools and their application. The importance of positive relationships between office and field activities is stressed. This is a capstone course for the Building Construction Technology program.

*Note:* BCT 211 or equivalent construction experience and completion of more than three credits is recommended.

*Prerequisite:* Language and Math Proficiency

*Offered spring only.*

## **BUSINESS ADMINISTRATION (BUS)**

Business Division, Room A143, (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:* AC 112 or higher ACC course

### **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 114 Training Principles and Practices (3-0) 3 Hours**

This course identifies the principles and methods of training with specific applications for training in supervisory skills and equipment utilization. Training equipment, training materials and services, and managing the training function will be covered. Additionally, students will develop training skills in selected field of training.

*Prerequisite:* BUS 113 or BUS 121

## Business Administration (BUS)

### **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 116 Principles of Quality Management (3-0) 3 Hours**

A survey of the principles and processes of Total Quality Management as applied to industrial, service and governmental organizations. The evolution of TQM and related management approaches will be examined along with team building skills, quality standards, quality audits, and organization design.

*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

**IAI BUS 911**

### **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 and Math Proficiency

### **BUS 211 Practicum in Mid-Management (0-15) 3 Hours**

This course is for students pursuing a 2-year degree in Business Management. It is available to sophomore students and provides a "capstone" course offering specialized training in a specific career area. The content will be based primarily on individual needs.

*Prerequisite:* Sophomore Standing

### **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

### **BUS 213 Principles of Salesmanship (3-0) 3 Hours**

Develops persuasive communication skills used in personal selling. Industrial, retail, service related areas covered: product and consumer knowledge, prospecting, follow-up, time management, and sales force management.

*Note:* Prior enrollment in PSY 121 or PSY 122 recommended.

*Prerequisite:* BUS 121

### **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, copywriting, 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

### **BUS 215 Production and Inventory Control (3-0) 3 Hours**

This course will explore the design of the production control, quality control and inventory control system. These systems will be related to the functioning of the enterprise as a whole.

### **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 on-going 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 area of antitrust, employment and consumer transactions.

*Prerequisite:* BUS 121

**IAI BUS 912**

### **BUS 222 Business Law II (3-0) 3 Hours**

Continues study of Business Law. Areas covered include sales, leases, secured transactions, partnership, corporations, and commercial paper. Common law principles as well as statutory and administrative agency rules are discussed as appropriate.

*Prerequisite:* 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 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.

*Prerequisite:* BUS 121

**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: P1 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: P1 902L**

**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*

**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 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*

**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*

**CHM 224 Biochemistry (3-0) 3 Hours**

Provides an understanding of the basic principles, concepts, terminology, and laboratory techniques of biochemistry. Covers cell structure, types of biochemical compounds, nomenclature, reaction pathways, information and energy systems, and isolation and identification techniques.

*Prerequisite:* CHM 125 or CHM 223 (C or better in either)

## CHINESE (CHI)

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (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.

**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

**IAI: H1 900**

## CISCO NETWORKING (CNA)

Engineering, Math, & Physical Sciences Division,  
Room B162, (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 211 Advanced Routing (2-2) 3 Hours**

This is the first course in the Cisco CCNP (Cisco Certified Network Professional) Academy sequence of four courses. This course is designed to teach students topics in advanced routing. The focus of the course will be implementing and optimizing network traffic using routing protocols such as EIGRP, OSPF and BGP. Delivery is via the Internet from the Cisco servers and supplementary lectures. Assessment for the on-line material will be delivered via the Internet from the Cisco assessment servers. Laboratories and some assessment are done in class as well as the delivery of supplemental material.

*Prerequisite:* CNA 114 or CCNA certification

*Course fee*

### **CNA 212 Remote Access (2-2) 3 Hours**

This is the second course in the Cisco CCNP (Cisco Certified Network Professional) Academy sequence of four courses. This course is designed to teach students topics in remote access technologies. The focus of the course will be implementing asynchronous dial-up connections, ISDN, X.25, Frame-Relay, Dial Backup solutions and Network Address Translation (NAT). Delivery is via the Internet from the Cisco servers and supplementary lectures. Assessment for the on-line material will be delivered via the Internet from the Cisco assessment servers. Laboratories and some assessment are done in class as well as the delivery of supplemental material.

*Perequisite:* CNA 211

*Course fee*

### **CNA 213 Multilayer Switching (2-2) 3 Hours**

This is the third course in the Cisco CCNP (Cisco Certified Network Professional) Academy sequence of four courses. This course is designed to present topics in Multilayer Switching. The focus of the course will be the implementation of switches in a campus internetwork. Switching topics will include VLANs, Spanning Tree Protocol and redundant links, Inter-VLAN routing, multilayer switching, Hot Standby Router Protocol (HSRP) and multicasting. 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 and switches.

*Prerequisite:* CNA 212

### **CNA 214 Internetwork Troubleshooting (2-2) 3 Hours**

This is the fourth course in the Cisco CCNP (Cisco Certified Network Professional) Academy sequence of four courses. This course is designed to present topics in how to baseline and troubleshoot an environment using Cisco routers and switches for multiprotocol client hosts and servers connected with Ethernet and Fast Ethernet LANs and Serial, Frame Relay, and ISDN BRI WANs. 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 and switches.

*Prerequisite:* CNA 213

## CIVIL TECHNOLOGY (CIV)

Engineering, Math, & Physical Sciences Division,  
Room B162, (847) 543-2044

### **CIV 111 Surveying I (3-2) 3 Hours**

Introductory course in principles, field practice and basic calculations for boundary, topographic mapping, and engineering surveying. General use and care of steel tapes, laser and conventional levels, transits and total station will be covered.

*Note:* MTH 115 or MTH 117 or equivalent is recommended.

*Course fee*

*Offered fall only.*

## Civil Technology (CIV) Communications (CMM)

### CIV 113 Construction Inspection (3-0) 3 Hours

Introduces students to the principles of construction inspection including safety practices, legal aspects, and applicable specifications, codes and standards. Laboratory tests for concrete quality control will be demonstrated. The duties of both a project inspector and a building inspector (building official) are discussed.

*Offered fall only.*

### CIV 211 Surveying II (2-3) 3 Hours

Continuation of Surveying I, dealing with horizontal and vertical curves for highways, traverse adjustments and area computations, boundary and public land surveys, determination of meridian, coordinate geometry and calculations, Global Positioning Systems (GPS), data collection with total stations, and state plane coordinates.

*Prerequisite:* CIV 111

*Course fee*

*Offered spring only.*

### CIV 213 Subdivision Planning and Design (2-3) 3 Hours

Subdivision planning criteria, geometry of curvature and elevation of local streets, basic storm sewer design, and fundamentals of sanitary sewer and watermain design are included in the course. Emphasis is placed on the design process starting from field notes through preparation of construction drawings and material take-off list.

*Note:* MTH 117, EGR 121, and CAD 177 are recommended.

*Course fee*

*Offered spring only.*

*Offered 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 BCT 113 are 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 and Math Proficiency

## COMMUNICATIONS (CMM)

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (847) 543-2040

### CMM 111 Communications 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

**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.

**CMM 127 Intercultural Communication (3-0) 3 Hours**  
 This course will examine how culture influences the communication process. Students will explore how diverse underlying cultural orientations and patterns influence communication behaviors within and between cultures. Theoretical and practical aspects of intercultural communication will be addressed with a focus on how students can become interculturally competent communicators.  
*Prerequisite:* Language Proficiency

**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 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.  
*Note:* Recommended EDU 221.  
*Prerequisite:* SPE 121  
*Offered summer only.*

## **COMPUTER AIDED DESIGN (CAD)**

Engineering, Math, & Physical Sciences Division,  
 Room B162, (847) 543-2044

**CAD 110 CAD/CAM Concepts (2-2) 3 Hours**  
 An introductory level course designed to provide the student with an understanding of the role of computers in design and manufacturing. The basics of computer components and operation and DOS/Windows will be covered as well as an introduction to AutoCAD.

*Note:* This course should be taken prior to any other CAD courses if the student lacks an understanding of the computer and/or Windows.

*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:* DFT 111 or EGR 121 or ARC 121 or equivalent drafting experience and CAD 110 are recommended.  
*Course fee*

**CAD 119 Introduction to Microstation (2-2) 3 Hours**  
 The course will introduce the students to the Microstation CAD system, a PC version of the popular Microstation CAD software. Topics include two and three dimensional modeling, drawing on various levels, dimensioning and related topics.  
*Note:* Completion of ARC 121 or EGR or DFT 111 and CAD 110 or equivalent industrial experience are recommended.  
*Course fee*

**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

**CAD 175 AutoCAD 3D (2-2) 3 Hours**  
 Presents topics and lab work dealing with 3D solid modeling using AutoCAD and Inventor software.  
*Prerequisite:* CAD 117 or EGR 121 or ARC 121  
*Course fee*

### **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 or CAD 119 or EGR 121 or equivalent industrial experience is recommended.

*Course fee*

### **CAD 177 Site Planning and Drafting (2-2) 3 Hours**

This course will introduce the design and drafting requirements of site planning for construction projects. The course will include elements of surveying, drainage, utility requirements, land use, and landscape design.

*Prerequisites:* CAD 117 or CAD 119 or EGR 121 or ARC 121- AND - Language and Math Proficiency

*Course fee*

*Offered fall only.*

*Offered odd years only.*

### **CAD 179 CAD Animation and Rendering (2-2) 3 Hours**

Animation and rendering of 3 dimensional objects for architects, graphic illustrators and product designers. Software emphasized is 3D Studio Max.

*Note:* Completion of CAD 117, or CAD 119, or CAD 176, or EGR 121, or ARC 121, or equivalent industrial experience is recommended..

*Prerequisite:* Language and Math Proficiency

*Course fee*

### **CAD 211 Mechanical Detailing (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/CAM system.

*Prerequisite:* CAD 175 or CAD 176

*Course fee*

### **CAD 214 Architectural Applications (2-2) 3 Hours**

Design and drawing of buildings including furniture, fixtures, windows, doors, foundation plans, floor plans, roof plans, site plans, elevations, sections, and dimensioning, in 2D and 3D using AutoCAD and Architectural Desktop software.

*Note:* Contact program coordinator for possible substitution of industrial experience for the prerequisite.

*Prerequisites:* ARC 121 or ARC 170 or ARC 171 - AND - CAD 117

*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 and summer 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*

### **CAD 279 Animation and Rendering II (2-2) 3 Hours**

Designed as a continuation of CAD 179, Animation and Rendering, 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*

## COMPUTER INFORMATION SYSTEMS (CIS)

Business Division, Room A143, (847) 543-2041

### **CIS 110 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 CIS core prerequisite and is required before taking a second level programming course.

*Note:* Both CIS 110 and CIS 113 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 CIS elective.

*Corequisite:* CIS 120 or passing score on the Introduction to Computers Placement Test

*Course fee*

### **CIS 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. Projects will require a substantial amount of time using a computer outside of class.

*Prerequisite:* Language and Math Proficiency

*Course fee*

### **CIS 112 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. The course includes key data communication and LAN concepts. Included will be typical LAN business applications, topologies, standards, and protocols, as well as network operating systems, servers, LAN and LAN connectivity, LAN cables, and network management.

*Prerequisite:* CIS 120 or passing score on the Introduction to Computers Placement Test

*Course fee*

### **CIS 113 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 CIS core prerequisite and is required before taking a second level programming course.

*Note:* Both CIS 113 and CIS 110 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 CIS elective.

*Corequisite:* CIS 120 or passing score on the Introduction to Computers Placement Test

*Course fee*

### **CIS 115 PC Operating Systems (3-0) 3 Hours**

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, installation, and software/hardware management will be an integral part of this course.

*Prerequisite:* Language and Math Proficiency

*May be taken twice, but any topic only once*

### **CIS 119 Introduction to Office Software (2-2) 3 Hours**

This course is a hands-on course for students who need to learn basic office 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 CIS majors and does not apply towards any CIS degree or certificate.

*Prerequisite:* Language and Math Proficiency

*Course fee*

### **CIS 120 Introduction to Computers (3-0) 3 Hours**

This course is designed to explain the significance and role of the computer in society and in business. Students will learn introductory concepts of computer hardware, operating systems, software, operations, and electronic research and communication (Internet). Personal computer hands-on experience using a popular integrated software package will provide students a basis for understanding the data processing profession and offer useful microcomputer skills for accomplishing their future course work.

**IAI BUS 902**

*Prerequisite:* Language and Math Proficiency

*Course fee*

### **CIS 170 Internet Programming for Business (3-0) 3 Hours**

This course is designed as an introduction to learning the web's language. The main objective of the course is to develop the code necessary to create and maintain Internet pages for business. Students will learn the fundamentals of programming using the Internet/Web Markup languages and Scripting languages. Students will gain an understanding of fundamental programming concepts.

*Prerequisite:* Language Proficiency

*Course fee*

### **CIS 171 Scripting Languages (3-0) 3 Hours**

This course addresses advanced topics of scripting languages that will allow the student to write the code necessary to create, manipulate and use various variables, objects, properties, methods, events, and functions. Students will create several projects that will involve client-side and server-side programming techniques and styles. Debugging techniques will be covered extensively.

*Prerequisite:* CIS 170

*Course fee*

### **CIS 210 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 Interfaces (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:* CIS 110 or CIS 113 or a CIS programming course or a passing score on the Programming Placement Test *Course fee*

### **CIS 211 Introduction to C Programming (3-0) 3 Hours**

This course is an introduction to the fundamentals of the "C" programming language. Emphasis is on the design, coding, and debugging of "C" programs in an interactive microcomputer environment. The course will include the creation of complex data formats, program input and output, and the saving of information files. Structured programming techniques and "C" language style conventions will be emphasized. *Prerequisite:* CIS 110 or CIS 113 or a CIS programming course or a passing score on the Programming Placement Test *Course fee*

### **CIS 212 Objects and ActiveX 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's Component Object model. Object Oriented Design will be discussed and then used to implement business applications that use interface, business and utility objects. *Prerequisite:* CIS 210 *Course fee*

### **CIS 213 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:* CIS 212 and CIS 230 *Course fee*

### **CIS 215 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:* CIS 110 or CIS 113 or a CIS programming course or a passing score on the Programming Placement Test *Course fee*

### **CIS 216 Programming in C++ (3-0) 3 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. *Prerequisite:* CIS 110 or CIS 113 or a CIS programming course or a passing score on the Programming Placement Test *Course fee*

### **CIS 217 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:* CIS 216 *Course fee*

**CIS 218 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:* CIS 216

*Course fee*

**CIS 230 Comprehensive Database (3-0) 3 Hours**

This course teaches the PC user to implement a relational database using Microsoft Access. Concepts of a relational database are discussed. The student learns to create and modify tables and prepare customized queries, forms and reports. Other topics include: embedding objects, creating macros, using Visual Basic for Applications (VBA), and database administrative task. Students will need to have knowledge of basic application software functions to be successful in this course.

*Prerequisite:* Language Proficiency

*Course fee*

**CIS 231 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 in the twenty-first century. 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.

*Prerequisite:* CIS 120 or AOS 112 or passing score on the Introduction to Computers Placement Test

**CIS 234 Visual Programming in Java (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:* CIS 215

*Course fee*

**CIS 235 Enterprise Java Development (3-0) 3 Hours**

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:* CIS 234

*Course fee*

**CIS 236 LAN Administration (3-0) 3 Hours**

Course covers the basics of System Administration. Included is establishing and maintaining network users, directories and security. Monitor and administer the network through the use of file server utilities. Set up and manage network printing. Maintain a backup of all files, security, and rights.

*Prerequisites:* CIS 112 and CIS 115

*Course fee*

*May be taken twice, but any topic only once*

**CIS 237 Managing Windows Network Environment (3-0) 3 Hours**

This course is for Support Professionals who will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses Microsoft Windows Server products. It also provides students with the prerequisite skills required for Implementing and Administering Microsoft Directory Services.

*Prerequisites:* CIS 112 and CIS 115

*Course fee*

**CIS 252 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:* CIS 251 or EIT 212

**CIS 258 Systems Analysis (3-0) 3 Hours**

Concepts of the systems development cycle are presented. These include: systems approach to problem solving, systems analysis, initial systems design, technical design, user acceptance, systems conversion, and final evaluation.

Business needs and the human aspects of EDP are stressed. *Prerequisite:* CIS 170 or 210 or 215 or 216, or higher level object oriented programming language.

*Course fee*

**CIS 271 Microcomputer Assembler Language (3-0) 3 Hours**

This course is an introduction to Micro Assembly Language using the IBM/PC. Topics include the architecture of the 80XX chip, addressing modes, and the 80xx instruction set. Programs will be written covering screen manipulation, calculations, table handling, and introduction to disk I/O.  
*Prerequisite:* CIS 110 or CIS 113 or a CIS programming course or a passing score on the Programming Placement Test  
*Course fee*

**CIS 276 Operating Systems (3-0) 3 Hours**

This course deals with operating systems at the functional level, concentrating on what an operating system does rather than how it does it. A major consideration will be describing the Virtual Memory Management.  
*Prerequisite:* CIS 110 or CIS 113 or a CIS programming course or a passing score on the Programming Placement Test

**CIS 277 Database Concepts (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:* CIS 230 - AND - a CIS programming course or a passing score on the Programming Placement Test

**CIS 278 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:* CIS 171 and CIS 277  
*Course fee*

**CIS 279 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:* CIS 170 and CIS 230  
*Course fee*

**CIS 290 Desktop Publishing (3-0) 3 Hours**

An introduction to desktop publishing on the microcomputer. Students become familiar with basic desktop publishing terminology and learn to produce documents containing both text and graphics. Publications may include advertising flyers, business forms and newsletters.  
*Prerequisite:* Language Proficiency  
*Course fee*  
*May be taken twice, but any topic only once*

**CIS 291 CorelDRAW (3-0) 3 Hours**

This course covers the DRAW module of CorelDRAW!. Drawing, text handling, and special effects such as Metamorphoses, Extrusions and PowerClip will be emphasized. Color, printing requirements, exporting and importing will also be addressed.  
*Prerequisite:* Language Proficiency  
*Course fee*

**CIS 292 Advanced Desktop Publishing (2-0) 2 Hours**

A continuation of CIS 290. Topics covered will include: the dictionary and table editors, exporting and importing, object linking and embedding, managing long publications, creating special effects and the new features of subsequent releases of PageMaker. Lab time outside of class is required.  
*Prerequisite:* CIS 290  
*Course fee*

**CIS 299 Selected Topics in Computer Information Systems (Variable) 1-3 Hours**

A course designed to meet the needs of students for specialized instruction in current computer information systems 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 B162, (847) 543-2044

**CNC 110 CNC Operations I (2-2) 3 Hours**

Set-up and operation of CNC FANUC 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.*

## Computerized Numerical Control (CNC) Cooperative Education (EWE)

### 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 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 program coordinator 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.*

## COOPERATIVE EDUCATION (EWE) EDUCATIONAL WORK EXPERIENCE

Cooperative Education Office, Building E,  
Room E 101, (847) 543-2058

Cooperative Education offers students the opportunity to earn credits for new learning in a work situation. Either a new or current job may qualify as a CO-OP work experience. Specific educational objectives are established for the work experience portion of CO-OP.

### 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*

## Cooperative Education (EWE) Criminal Justice (CRJ)

**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 111 Introduction to Policing (3-0) 3 Hours**  
This course examines the history, structure, and behavior of the police in American society. Students will be exposed to such topics as the heritage of American policing, police systems, the patrol function, police discretion, police-community relations, police accountability, and police and the Constitution.  
*Prerequisite:* Language Proficiency

**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

**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

**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

**CRJ 211 Criminal Procedural Law (3-0) 3 Hours**  
This course exposes the student to rules of criminal procedure in such areas as arrest, search and seizure, interrogation, use of force, and due process of law. An emphasis is placed on the constitutional interpretations of criminal procedure by the United States Supreme Court.  
*Prerequisite:* Language Proficiency

**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

## **Criminal Justice (CRJ) Dance (DNC)**

### **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 (0-16) 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.

### **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 coordinator

### **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 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

### **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 Standing

## **DANCE (DNC)**

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (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.



## Dance (DNC) Dental Hygiene (DHY)

### 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 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.

### 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 his or her 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.

## DENTAL HYGIENE (DHY)

Biological & Health Sciences Division,  
Room C140, (847) 543-2042

### DHY 111 Principles 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 and fundamental instrumentation will be presented.

*Prerequisite:* BIO 124 (C or better) and admission to the Dental Hygiene Program

### DHY 112 Principles in Dental Hygiene (2-0) 2 Hours

This course is a continuation of DHY 111. 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. Emphasis will be placed on instrumentation, selective polishing, fluoride mechanisms and applications, medical emergencies, and basic specialized dental hygiene procedures including root planing and ultrasonic scalers.

*Prerequisites:* DHY 111, DHY 113, DHY 115, DHY 117, DHY 119, DHY 171, and BIO 125 (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

### DHY 114 Clinical Dental Hygiene I (0-8) 2 Hours

This course is a continuation of DHY 113 and provides clinical practice in fundamental dental hygiene instrumentation of skills on manikin (typodont) models and student partners. Beginning patient treatment is also included.

*Corequisite:* DHY 112

**DHY 115 Head and Neck Anatomy (3-0) 3 Hours**

This course provides the students with an introduction to the microscopic characteristics of the tissues of the oral cavity. Human histology and orofacial embryology will also be introduced. The 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.

*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 exposure techniques, processing, mounting and fundamental interpretation of dental radiographs.

*Corequisite:* DHY 112

*Course fee*

**DHY 117 Dental Anatomy (2-0) 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 118 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 112

**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 111

**DHY 171 Preventative Dental Hygiene (1-0) 1 Hour**

This course provides students with a foundation of knowledge in the activities in the activities of preventive dental hygiene. Topics include fluoride, dentifrice application, tooth brushing and flossing techniques, dental hygiene aids, and periodontal antimicrobial products and techniques.

*Corequisite:* DHY 111

**DHY 172 Medical Emergencies (1-0) 1 Hour**

This course provides the student with an understanding of medical emergency situations in the dental office setting. Emphasis will be placed on prevention, preparation and management of life-threatening situations. Legal issues faced in the dental office when a medical emergency occurs will be introduced

*Corequisite:* DHY 112

**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.

*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 112

*Course fee*

**DHY 178 Review of Dental Literature (1-0) 1 Hour**

This course introduces the fundamental skills to review and interpret dental scientific literature. The course includes an introduction to research methodologies and statistical analysis

*Prerequisite:* DHY 112, DHY 114, DHY 116, DHY 118, DHY 172, DHY 174, and DHY 176 (C or better in each)

**DHY 179 Clinical Dental Hygiene II (0-6) 2 Hours**

This course provides the clinical practice and management in oral prophylaxis on the child, young adult and adult patient. Preventive techniques and exposing of radiographs is also included.

*Corequisite:* DHY 178

*Course fee*

**DHY 211 Theory and Practice of Dental Hygiene I (2-0) 2 Hours**

This course is a continuation of DHY 179. Emphasis is placed on instrumentation techniques, pain control and medically compromised and special needs patients.

*Prerequisite:* DHY 178 and DHY 179 (C or better in both)

**DHY 212 Theory and Practice of Dental Hygiene II (1-0) 1 Hour**

This course is a continuation of DHY 211. Emphasis is placed on management and treatment of special needs and medically compromised patients.

*Prerequisites:* DHY 211, DHY 213, DHY 217, DHY 219, DHY 271, and DHY 273 (C or better in each)

**DHY 213 Clinical Dental Hygiene III (0-12 hours) 4 Hours**

The course provides clinical practice and management in oral prophylaxis on the adult and periodontally involved patient. Periodontal and preventive techniques and exposing of radiographs is also included

*Corequisite:* DHY 211

## Dental Hygiene (DHY) Drafting (DFT)

### DHY 214 Clinical Dental Hygiene IV (0-12 hours) 4 Hours

This course provides clinical practice and management in oral prophylaxis and periodontal therapy on the adult patient. Preventive techniques and exposing of radiographs is also included

*Corequisite:* DHY 212

### DHY 215 Dental Radiology II (0-3 hours) 1 Hour

This course continues practice in the techniques of exposing, processing, mounting and evaluating dental radiographs.

*Corequisite:* DHY 211

*Course fee*

### DHY 216 Ethics, Jurisprudence, and Practice Management (2-0) 2 Hours

This course provides the students with the skills needed for successful clinic practice management. Emphasis is placed on professional relationships and the various roles dental hygienists encounter in the various dental specialties. The course includes ethical and legal obligations by the dental professionals to the community and public it serves

*Corequisite:* DHY 212

### DHY 217 Dental Pharmacology and Anesthetic (2-0) 2 Hours

This course provides the student with up-to-date, accurate information on topics including antineoplastic drugs, respiratory and gastrointestinal drugs, hormones, and drugs to treat common oral diseases. The course also focuses on the fundamental pharmaceutical concepts of local anesthetic.

*Corequisite:* DHY 211

### DHY 218 Dental Radiology III (0-3 hours) 1 Hour

This course continues to focus on exposing, mounting, processing, and interpreting dental radiographs. Emphasis is placed on increasing student competency level in interpretation and technique of both intra and extraoral radiographic exposures.

*Corequisite:* DHY 212

*Course fee*

### DHY 219 Advanced Periodontics (2-0) 2 Hours

Course content includes additional knowledge required to diagnose and treat periodontal diseases, clinical management of the periodontium and adjunctive therapies relevant to the maintenance of periodontal health. Emphasis is placed on the differential diagnosis and treatment of periodontal disease. Surgical and post-surgical topics will also be covered in this course.

*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.

*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

### DHY 273 Applied Dental Radiology (2-0) 2 Hours

Emphasis is placed on oral and maxillofacial radiologic interpretation. Students will learn to identify pathological processes through the use and observation of the changes produced on radiographs by disease.

*Corequisite:* DHY 211

### DHY 274 Advanced Dental Hygiene (2-0) 2 Hours

This course provides the student with advanced and complex dental hygiene theory and background. Emphasis is placed on advanced instrumentation and skills necessary for treating patients with nontraditional, extraordinary conditions.

*Corequisite:* DHY 212

## DRAFTING (DFT)

Engineering, Math, & Physical Sciences Division,  
Room B162, (847) 543-2044

### DFT 111 Drafting I (3-5) 5 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.*

### DFT 112 Drafting II (3-5) 5 Hours

A continuation of Drafting I. Computer-aided design skills are advanced through exploration of auxiliary views, developments, working drawings and descriptive geometry.

*Prerequisite:* DFT 111 or EGR 121

*Course fee*

*Offered spring only.*

## **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 preschool program. The sequence of children's musical development and the relationship between early music exposure and children's cognitive development will be covered. Skill in singing, listening, creative movement, and using rhythm instruments will be developed. Previous music experience is not required.  
*Prerequisite:* Language Proficiency

**ECE 116 Creative Activities I (2-2) 3 Hours**

This course is an overview of techniques of conducting creative activities with young children, including experience in art, music, language arts, science, math, and social play.  
*Prerequisite:* Language Proficiency

**ECE 117 Creative Activities for Infants, Toddlers, & Twos (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

**ECE 119 Language Development and Activities for Young Children (3-0) 3 Hours**

This course focuses on the development of speech and language in the young child. It includes assessment of child language, methods of facilitating language development, practical curriculum activities, and criteria for literature selection.  
*Prerequisite:* Language Proficiency

**ECE 131 The Special Needs Child in ECE (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:* Language Proficiency

**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:* 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. Required field experience of 20 hours.  
*Prerequisite:* PSY 222

**ECE 221 Principles of Early Childhood Education (3-0) 3 Hours**

This course is an overview of early childhood care and education. It includes historical and philosophical influences on early childhood education, program planning, curriculum, indoor and outdoor environments, current issues, organizational structure, guidance techniques, and comparative early childhood programs.  
*Prerequisite:* PSY 222

**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. Includes assessment of children's early mathematical understandings.  
*Prerequisite:* Language and Math Proficiency

**ECE 270 Administration of Early Childhood Programs I: Human Aspects (3-0) 3 Hours**

This course is intended for students who are interested in becoming or who are currently serving as directors of early childhood programs. The course will acquaint students with the organization, management, and evaluation of programs serving young children. Staff management including staff selection, mentoring, supervision, and evaluation; parent and community relationships; children's educational programming; and design and arrangement of the physical environment will be included.  
*Prerequisite:* PSY 222 and ECE 221

## Early Childhood Education (ECE) Economics (ECO)

### **ECE 271 Early Childhood Education Practicum I (1-12) 4 Hours**

This course includes supervised work experience in an early childhood program. It includes observation and assessment of children, interaction with children and parents, planning and implementing curriculum activities, and working as part of the teaching team.

*Prerequisite:* ECE 221, Sophomore standing, GPA of 2.4, and coordinator's approval 60 days prior to the first day of the semester for which the practicum is requested.

### **ECE 272 Early Childhood Education Practicum II (1-12) 4 Hours**

This course is a continuation of supervised work experience in an early childhood program. 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. A total of 180 practicum hours, plus 30 hours of supervision.

*Prerequisite:* ECE 271 (C or better), Sophomore standing, GPA of 2.4 or higher, and coordinator's approval at least 60 days prior to the first day of the semester for which the practicum is requested

### **ECE 273 Administration of Early Childhood Programs II: Business Aspects (3-0) 3 Hours**

This course is designed for students who are interested in becoming or who are currently serving as directors of early childhood programs. The course will acquaint students with the business management aspects of programs serving young children including codes and regulations, federal disability laws, liability, insurance, budgeting, staff compensation, contracts, legal resources, fundraising, marketing and grant writing. Students will also gain skill in using computer software for administrative purposes.

*Prerequisite:* PSY 222 and ECE 221

## 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 120 Observation/Guidance of Children (3-0) 3 Hours

This course focuses on observational techniques and guidance practices appropriate to early childhood settings. It involves in-depth study of young children through direct observation of and participation with children 6 weeks to 8 years of age in an organized environment. Includes the following techniques of child study: case study, anecdotal records, running records, time sampling, experience sampling, informal assessment. Thirty hours of guided observation and participation in an early childhood classroom are required.

*Prerequisite:* Language Proficiency

### EDU 221 Introduction to Teaching (3-0) 3 Hours

This course is an orientation to profession and study of nature of teaching, its opportunities and responsibilities. Scope of American public education studied. There is an opportunity for directed observation of all grade levels.

*Prerequisite:* Language Proficiency

### 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.

*Prerequisite:* PSY 222 or PSY 226

### 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

### 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*

## EDUCATIONAL WORK EXPERIENCE (EWE)

*See Cooperative Education page 183.*

## ELECTRICAL TECHNOLOGY (ELC)

Engineering, Math, & Physical Sciences Division,  
Room B162, (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 ELT 170 and ELC 172 or equivalent knowledge.

*Course fee*

*Offered fall only.*

### 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 ELT 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 ELT 170 for the Electrical/Electronic Maintenance Certificate.

*Note:* Recommended preparation ELT 170 and MTH 114 or MTH 117 or equivalent knowledge.

*Course fee*

### ELC 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.

*Note:* Recommended preparation ELT 170 and MTH 117 or MTH 122 or equivalent knowledge.

*Course fee*

### ELC 174 AC Fundamentals (1.5-1) 2 Hours

AC circuitry including fundamental sine wave analysis, inductance, capacitance, voltage and current phase relationships. AC problem solving, complex notation and application.

*Note:* Recommended preparation ELC 173, MTH 118 or MTH 123 or equivalent knowledge.

*Course fee*

### ELC 175 AC Analysis and Circuit Theorems (1.5-1) 2 Hours

AC network theorems and solutions, to include Thevenin's Theorem, Norton's Theorem, Mesh analysis, Nodal analysis, superposition and other analysis techniques. Series and parallel resonance will also be included with discussion of passive filter operation. ELC 175 is a continuation of ELC 174 for the Electronics Engineering Technology AAS degree.

*Note:* Recommended preparation ELT 170, ELC 173, MTH 118 or MTH 123 or equivalent knowledge.

*Course fee*

### ELC 211 Electrical Machinery (2-3) 3 Hours

Principles of design and construction of many types of motors and generators including servos, synchros, amplidyne generators, motor and generator control circuits, and industrial application. Course oriented to troubleshooting and repair techniques.

*Note:* Recommended preparation ELT 170 and ELC 172 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 ELT 170 and ELC 172 or equivalent knowledge.

*Course fee*

### 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 B162, (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



**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 Token Ring 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.  
*Prerequisite:* EIT 111

**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

**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. Network services and package management will be addressed.

## **ELECTRONIC INFORMATION TECHNOLOGY (EIT)**

Engineering, Math, & Physical Sciences Division,  
Room B162, (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.

*Prerequisites:* ELT 170 and ELC 172

**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 210 is also recommended.

*Prerequisite:* EIT 111

**EIT 232 Linux Server Implementation (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

## **ELECTRONICS ENGINEERING TECHNOLOGY (ELT)**

Engineering, Math, & Physical Sciences Division,  
Room B162, (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 113 Transistor Electronics (3-2) 4 Hours**

Principles of transistors including bipolar devices and FETS. The hybrid PI and hybrid parameter models will be used.

*Note:* Some degree of mathematical proficiency is required for students to follow analysis. Recommended preparation ELC 174 and ELC 175.

*Course fee*

*Offered fall only.*

**ELT 115 Electronic Laboratory Techniques (1-2) 2 Hours**

Common techniques for prototypes and circuit fabrication are taught, including wire-wrapping and printed circuit processes. The student will be expected to pursue and complete two laboratory projects of his/her choice with the instructors approval.

*Note:* EWE 220 may substitute. Recommended preparation sophomore standing or consent of department.

*Course fee*

*Offered spring only.*

**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 ELT 170 or equivalent knowledge.

*Course fee*

**ELT 118 Industrial Digital Electronics II (2-2) 3 Hours**

Continuation of ELT 117. 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 ELT 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 mother boards, memory, disk drives, cases and power supplies. Computers will be disassembled, reassembled and configured to operate.

*Note:* Recommended preparation CIS 120 and concurrent enrollment in ELT 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 170 DC Circuit Fundamentals (1.5-1) 2 Hours**

Topics include definition of voltage, current, resistance, and power. Also includes Ohm's Law, Kirchoff's Laws as applied to series and parallel circuits.

*Note:* Recommended preparation MTH 114, MTH 117, MTH 122 or equivalent knowledge.

*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 ELT 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 ELT 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 ELT 170, ELC 172 and ELC 113 or equivalent knowledge.

*Course fee*

### **ELT 211 Advanced Solid State Electronics (2-2) 3 Hours**

Continuation of ELT 113 with the development of frequency response characteristics of transistors and IC amplifiers. Linear IC's will be studied, including function generators, op amps, regulators and phase lock loops.

*Note:* Recommended preparation ELT 113 or equivalent knowledge.

*Course fee*

*Offered spring only.*

### **ELT 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.

*Note:* Recommended preparation ELT 113, ELC 174 and ELC 175 or equivalent knowledge.

*Course fee*

*Offered spring only.*

### **ELT 213 Introduction to Digital Electronics (3-2) 4 Hours**

Principles of operation, performance, and design of digital computers and digital instrumentation. Number systems including binary; Boolean algebra and application to digital logic; digital logic circuits; computer organization and operation; digital logic application to electronic instrumentation.

*Note:* Recommended preparation MTH 117 or MTH 122 or equivalent knowledge.

*Course fee*

### **ELT 214 Microwave Systems and Measurements (2-3) 3 Hours**

Continuation of ELT 212. 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 ELT 211 and MTH 211 or equivalent knowledge.

*Course fee*

### **ELT 216 Microprocessors I (2-3) 3 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, and I/O will be studied as well as the instruction set.

*Note:* Recommended preparation ELT 213 and ELT 116 or equivalent knowledge.

*Course fee*

*Offered fall only.*

### **ELT 217 Microprocessors II (2-2) 3 Hours**

Second course in microprocessor electronics and follows ELT 216. Intended to be part of the Associate Degree in Electronics. 80xxx series of microprocessors are covered with introductions to assembly language and C. Concentration is on control applications.

*Note:* Recommended preparation ELT 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.

## **ELECTRONICS MANUFACTURING (EMF)**

Engineering, Math, & Physical Sciences Division,  
Room B162, (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)

## **EMERGENCY AND DISASTER MANAGEMENT (EDM)**

Social Sciences 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  
TECHNICIAN (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 of the Illinois Department of Public Health 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 18 years of age or older (at the time of licensure)

*Corequisite:* Current CPR certification (Health Care Provider Level: American Heart Association or American Red Cross)

*Course fee*

**EMT 114 Paramedic Clinical Practicum (0-16) 3 Hours**

This course consists of 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 of the Illinois Department of Public Health to become an EMT- Paramedic. The course consists of at least 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 of the Illinois Department of Public Health 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 hospital 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 124 (C or better in either) and current Illinois licensure as an EMT-B or EMT-I  
*Corequisite:* EMT 114 and EMT 115 and current CPR certification (Health Care Provider Level: American Heart Association 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 of the Illinois Department of Public Health 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 hospital 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 of the Illinois Department of Public Health 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 hospital 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 of the Illinois Department of Public Health 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 hospital 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

## Emergency Medical Technician (EMT) Engineering (EGR)

### 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 of the Illinois Department of Public Health 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 hospital 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 B162, (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 115 Applied Mechanics-Statics (3-0) 3 Hours

Analysis of forces on structural and mechanical systems: resultants of force systems; algebraic and graphical conditions of equilibrium of forces systems; analysis of forces acting on members of frames, trusses, etc.; forces due to friction and properties of areas.

*Note:* Prior completion of Technical Mathematics I (MTH 117 or higher) and one semester of College Physics (PHY 121 or higher) is strongly recommended.

*Offered spring only.*

### 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*

### 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 215 Mechanics of Materials for Technology (2-2) 3 Hours

Mechanical and physical properties of materials 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.

*Prerequisite:* EGR 115

*Course fee*

*Offered fall 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 or higher level math

*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.*

**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.*

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.

*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.

*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

**ENGLISH (ENG)**

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (847) 543-2040

**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 specificall focused exercises and

## English (ENG)

### **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**

English Composition I is designed to help students develop their competence in writing and analytical reading so they can enter the dialogue of the academic community. Students completing this course should be able to read, analyze, and produce college level texts.

*Prerequisite:* Language Proficiency

**IAI: C1 900**

### **ENG 122 English Composition II (3-0) 3 Hours**

English Composition II is designed to further the work done in Composition 120 or 121 by giving students more experience as writers and readers with various purposes in different contexts. Students will write analytical, research, and other advanced papers based on sources from literature and other texts.

*Prerequisite:* ENG 120 or ENG 121

**IAI: C1 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

### **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

### **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: C1 901R**

### **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.

### **ENG 129 Women in Literature (3-0) 3 Hours**

Introduces students to the wealth of (mostly Western) literature by and/or about women. Discussion of readings, films and other media enables students to analyze the portrayal of women in literature, to trace the historic development of writing by women, and to enjoy the excellence and variety of works by and about women.

*Prerequisite:* ENG 120 or ENG 121

**IAI: H3 911D**

### **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.

**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**

World Literature studies representative writers of European, Asian, African, Middle Eastern, and Latin American literature. It surveys the classics and the influential works of various countries, periods and movements from ancient writings to the present. Omitted or represented sparingly are British and North American writers since other courses focus on them. Explore the world by exploring the world's literature.

*Prerequisite:* ENG 120 or ENG 121

**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**

**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**

Students study myths, legends, and fairy tales from various cultures, with emphasis placed on Greek, Norse, and Hindu mythology and Grimm's fairy tales. The lasting power and influence of mythological themes and archetypal symbolism will be explored.

*Prerequisite:* ENG 120 or ENG 121

**IAI: H9 901**

**ENG 246 Latin American Writers (3-0) 3 Hours**

This course will introduce students to significant Latin American writers. The course will draw upon contemporary poetry, short fiction, novels and memoirs in English. The assigned readings will be in English and will exemplify trends in Latin American literature throughout the world.

*Prerequisite:* Language Proficiency

**IAI: H3 908N**

**ENG 247 International Women Writers (3-0) 3 Hours**

Reading literature is one of the most enjoyable ways to find out about other people and places. This introductory course offers CLC students an opportunity to enhance their understanding of various cultures and their appreciation of the literary contributions of women writers outside of the United States, Britain, and Europe. Modern novels and stories combined with ancient to modern poems will give students windows to view the concerns, triumphs, dreams, politics, families, etc. of international culture.

*Prerequisite:* ENG 120 or ENG 121

**IAI: H3 911D**

## English (ENG)

### ENG 249 Children's Literature (3-0) 3 Hours

Selection and evaluation of print and non-print materials, with emphasis on literature, how-to components on program design, story telling. Field observation of skillful school and public library personnel with children will be arranged.

*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 English 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. All forms of literature will be covered--folk tales, poetry, short stories, novels, plays, autobiographies, memoirs, and oral forms.

*Prerequisite:* ENG 121

### 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. Minority will be defined as groups who have not traditionally been represented in the American Literary Canon, including African Americans, American Indians, Asian Americans, Hispanic/Latino Americans, working class Americans, and gay/lesbian Americans. All forms of literature will be covered.

*Prerequisite:* ENG 121

### ENG 265 Grammar for English 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.

## **ENGLISH LANGUAGE INSTRUCTION (ELI)**

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (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.

### **ELI 103 Academic English for English Language Learners Advanced (3-0) 3 Hours**

Level 1 of a 2 level course in academic English for English Language Learners (ELLs) at the advanced 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 will provide ELLs with intensive and extensive practice in reading, writing, listening, speaking and vocabulary in English at the advanced level and will introduce them to strategies for improving these skills. This course will introduce learners to the vowel and consonant system in English and to the stress and intonational patterns in English. It will provide practice in narrative writing in English.

### **ELI 104 Academic English for English Language Learners Advanced II (3-0) 3 Hours**

Level 2 of a 2 level course in academic English for English Language Learners (ELLs) at the advanced 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 will provide ELLs with intensive and extensive practice in reading, writing, listening, speaking and vocabulary in English at the advanced level and will introduce them to strategies for improving these skills. It will provide practice in descriptive and expository writing in English. This course will work on pragmatic conventions of face-to-face conversations in English. It will introduce students to conventions or research writing in American academic discourse.

### **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.

### **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 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

### **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.

### **ELI 108 Academic Reading and Writing for English Language Learners (3-0) 3 Hours**

This course is designed for English language learners who have been educated in the US or who have lived for many years in the US but who still need to 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.

## **ENGLISH AS A SECOND LANGUAGE (ESL)**

Adult and Community Education Division,  
Building 4, (847) 543-2021

ENGLISH AS A SECOND LANGUAGE (ESL) classes are offered to adults from all countries whose native language is not English to pursue language instruction.

## English as a Second Language (ESL)

ESL 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.

### **ESL 30 Beginning English as a Second Language I (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.

*Course fee*

*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).

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*May be taken four times for credit*

### **ESL 43 Beginning English as a Second Language IV (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.

*Course fee*

*May be taken four times for credit*

### **ESL 44 English as a Second Language - Writing Improvement I (Variable) 1.5-3 Hours**

This course is for English-as-a-Second Language students from the upper beginning to the advanced level who want to write better in English. Students will learn spelling rules and work on improving their vocabulary, sentence structure and paragraph organization.

*Course fee*

*May be taken four times for credit*

### **ESL 45 English as a Second Language - Conversation I (Variable) 1.5-3 Hours**

This course is for English-as-a-Second Language students who already know some English grammar and have some knowledge of vocabulary but wish to improve their ability to speak and understand English in various social and business situations. American slang and usage will be taught.

*Course fee*

*May be taken four times for credit*

### **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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*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.

*Course fee*

*May be taken four times for credit*

**ESL 54 English as a Second Language - Writing Improvement II (Variable) 1.5-3 Hours**

This course is for English-as-a-Second Language students from the mid-intermediate to the advanced level who want to write better in English. Students will learn to write more complex sentences, to use more appropriate vocabulary for particular writing tasks and to compose well-developed paragraphs and longer compositions.

*Course fee*

*May be taken four times for credit*

**ESL 55 English as a Second Language - Conversation II (Variable) 1.5-3 Hours**

This course is for English-as-a-Second Language students at the upper intermediate and advanced level who are already familiar with English grammar and vocabulary items but wish to improve their ability to speak and understand English in various social and business situations. American slang and

usage will be taught.

*Course fee*

*May be taken four times for credit*

**ESL 60 Advanced English as a Second Language I (Variable) 1-3 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.

*Course fee*

*May be taken four times for credit*

**ESL 61 Advanced English as a Second Language II (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.

*Course fee*

*May be taken four times for credit*

**ESL 62 Advanced English as a Second Language III (3-0) 3 Hours**

This course is for non-native speakers of English who are familiar with many of the essential grammatical structures and most verb tenses but need further skill in English. Students will strengthen and refine their control of structures learned previously. They will focus on accurate use of verb phrases, relative clauses and subject-verb agreement in speech and in writing. Listening comprehension and paragraph writing will also be stressed.

*Course fee*

*May be taken four times for credit*

**ESL 63 Advanced English as a Second Language IV (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.

*Course fee*

*May be taken four times for credit*

## English as a Second Language (ESL) Fire Science Technology (FST)

### ESL 70 English as a Second Language Study Skills I (Variable) 1-3 Hours

This class is for students who have achieved communicative competence but wish to refine listening, speaking, reading and writing skills. They will learn content in advanced areas relating to the writing skills GED test.

*Course fee*

*May be taken four times for credit*

### ESL 71 English as a Second Language Study Skills II (Variable) 1-3 Hours

This class is for students who have achieved communicative competence but wish to refine listening, speaking, reading, and writing skills. They will learn content in advanced areas relating to the GED reading test.

*Course fee*

*May be taken four times for credit*

### ESL 72 English as a Second Language Reading And Writing Skills (3-0) 3 Hours

This class is for students who are already able to communicate in English but wish to upgrade their reading and writing skills for educational, business or personal reasons. Students will improve their reading comprehension, expand their vocabulary, learn to make inferences and scan for information and learn to write more correct and complex sentences, paragraphs and longer compositions.

*Course fee*

*May be taken four times for credit*

### ESL 73 English as a Second Language Speaking and Listening Skills (3-0) 3 Hours

This course is for students who are already able to communicate in English but wish to improve their listening and speaking skills for business, educational or personal reasons. Students will learn to listen carefully, take notes and outline oral presentations, increase their speaking vocabulary and practice speaking in both informal discussions and more structured situations.

*Course fee*

*May be taken four times for credit*

### ESL 80 ESL Academic Purposes Intermediate I (3-0) 3 Hours

This is the first portion of a course in intermediate English as a Second Language for students wishing to pursue academic studies in American colleges and universities. Students will improve their reading, writing, speaking and listening while focusing on a chosen content area. Emphasis will be on directions and sequencing in academic contexts.

*Course fee*

### ESL 81 ESL Academic Purposes Intermediate II (3-0) 3 Hours

The second portion of a course in intermediate English as a Second Language is for students wishing to pursue academic studies in American colleges and universities. Students will improve their reading, writing, speaking and listening while focusing on a chosen content area introduced in English as a Second Language for Academic Purposes - Intermediate I.

Emphasis will focus on series of directions and sequencing in academic contexts.

*Course fee*

### ESL 82 ESL Academic Purposes Intermediate III (3-0) 3 Hours

The third portion of a course in intermediate English as a Second Language is for students wishing to pursue academic studies in American colleges and universities. Students will improve their reading, writing, speaking and listening while focusing on a chosen content area. Emphasis will be on American life and college academic culture.

*Course fee*

### ESL 83 ESL 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.

*Course fee*

## 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 and Math Proficiency

### 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.

*Prerequisite:* FST 111 or one year active experience in the fire service

**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.

*Prerequisite:* FST 116 or 2 years active experience in the fire service

**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.

*Prerequisite:* FST 111 or one year active service experience in the fire service

**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 or one year active service experience in the fire service

**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 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 Officer 1/Management 2.

*Note:* Student orientation and pre-scheduled classroom meetings required.

*Prerequisite:* FST 111 or one year active service experience in the fire service

## Fire Science Technology (FST) Food Service (FSM)

### 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 or one year active service experience in the fire service

### 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 or one year active service experience in the fire service

### 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 or one year active service experience in the fire service

### 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)

Business Division, Room A143, (847) 543-2041

### FSM 110 Introduction to Professional Food Service (3-0) 3 Hours

The history and organization of the food service industry including management structures and staffing requirements for different types of operations is covered. The course focuses on the role and responsibilities of food service personnel and analyzes trends within the industry.  
*Prerequisite:* Language and Math Proficiency

### FSM 111 Principles of Food Preparation I (2-4) 4 Hours

Study of the principles of commercial food preparation with emphasis on handling tools, equipment, and materials for sauces, soups, entrees, and vegetables. Includes the study of quality and cost controls and menu planning. Emphasizes the importance of professional kitchen management.  
*Prerequisite:* Language and Math Proficiency  
*Course fee*

### FSM 112 Culinary Arts I (1-4) 3 Hours

A professional introduction to a full service kitchen and the uses of tools, materials and equipment. Preparation and presentation of menu, combinations of salads, soups, appetizers, sauces, entrees, vegetables, starches, and desserts are covered.  
*Prerequisite:* FSM 111  
*Course fee*

### FSM 113 Applied Food Service Sanitation (1-0) 1 Hour

Principles and procedures of sanitation in food preparation and service. Includes causes and prevention of food borne illnesses. Develops understanding of health regulations and inspection procedures. The State of Illinois Sanitation Licensing Examination is given as part of this course.  
*Note:* BRING BOOKS TO FIRST CLASS--AVAILABLE AT CLC BOOKSTORE.

### FSM 170 Principles of Food Preparation II (2-4) 4 Hours

Study of the principles of commercial food preparation with emphasis on skill development for the production of bread and pastry, salads, and international cuisine. Includes the principles of purchasing, pricing, scheduling, and catering management  
*Prerequisite:* Language and Math Proficiency  
*Course fee*

### FSM 171 Culinary Arts II (1-4) 3 Hours

A required course for students in the Culinary Arts Option. FSM 171 provides expanded experience in the handling of tools, materials and equipment. Experience is provided in the preparation of soups, entrees, salads, and bakeshop in a commercial food service operation.  
*Prerequisite:* FSM 112  
*Course fee*

### FSM 175 Nutrition (3-0) 3 Hours

Principles of nutrition with application to the food service industry. Includes fundamentals of food chemistry and nutrition for different age groups and special needs of individuals.  
*Prerequisite:* Language and Math Proficiency

### FSM 212 Menus/Merchandising/Facilities Planning (3-0) 3 Hours

A study of factors affecting consumer patronage including menu design, promotional techniques and facilities planning of service and kitchen areas in various types of food service operations.  
*Prerequisite:* Two FSM courses

**FSM 213 Quantity Food Purchasing (3-0) 3 Hours**

Principles and procedures of quantity purchasing including development of standards, cost controls, budgeting, and record keeping systems for food, beverages, equipment, and supplies. Vendor relations, legal factors, and storage requirements are included.

*Prerequisite:* One FSM course

*Course fee*

**FSM 271 Food Service Management (3-0) 3 Hours**

This course is the capstone for the Food Service Management Option. Students learn to apply the principles and techniques to manage a competitively successful food service operation in a rapidly changing environment. The roles, responsibilities and competencies required to perform successfully are presented. Competencies stressed include planning, leading, organizing and controlling to efficiently deliver quality products and services. Skills in creative problem solving, resume writing, and team building are covered. BASSETT (1 day) course is included.

*Prerequisite:* 15 semester hours of FSM courses one of which must be either FSM 212, FSM 213 or FSM 273

*Course fee*

**FSM 273 Food, Beverage and Labor Control (3-0) 3 Hours**

A primary function that affects the level of success of any food service operation is management's ability to control costs. The course provides the principles and practices of cost control systems for food, beverage, labor and overhead. The course shows how to analyze the numbers to prevent financial disaster or to correct them once they occur. Also, wine and spirit classification and controls will be discussed.

*Prerequisite:* One FSM course

**FSM 299 Selected Topics in Food Service (Variable) 1-4 Hours**

A course designed to meet the needs of students for specialized instruction in current Food Service Management/Culinary Arts topics.

*Note:* Topics will be identified for each section of the course.

*Course fee*

*May be taken four times, but any topic only once*

## **FRENCH (FRN)**

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (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.

*Prerequisite:* Language Proficiency

**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**

Review and further study of grammar concepts, continued aural-oral practice, simple conversation and selected readings with text analysis.

*Prerequisite:* FRN 221

**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**

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**

## **GENERAL EDUCATION DEVELOPMENT (GED)**

Adult and Community Education 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 FI visas are not eligible for tuition free adult education classes.

**GED 6 High Adult Secondary Education ASE (Variable) 1-4 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.

*Course fee*

*May be taken four times for credit*

**GED 7 High Adult Secondary Education ASE (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.

*Course fee*

*May be taken four times for credit*

## **GEOGRAPHY (GEG)**

Social Science Division, Room A244,  
(847) 543-2047

**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: P1 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**

**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

## **GEOLOGY (GEO)**

Engineering, Math, & Physical Sciences Division,  
Room B134, (847) 543-2044

**GEO 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 and groundwater, 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 and Math Proficiency

*Course fee*

**IAI: P1 905L**

**GEO 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 and Math Proficiency

*Course fee*

**IAI: P1 907L**

**GEO 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.  
*Note:* A two-day field trip to the Baraboo District of Wisconsin is required. Expenses of the field trip are borne by the student.

*Prerequisite:* GEO 121

*Course fee*

**GEO 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 and Math Proficiency

**IAI: P1 905**

**GEO 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 and Math Proficiency

**GEO 221 Rocks and Minerals (1-2) 2 Hours**

Emphasis on hand specimen identification of minerals and rocks. Introduction to crystallography, occurrence and economic uses of minerals and rocks, natural resources.

*Prerequisite:* Language and Math Proficiency

**GEO 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 and Math Proficiency

**IAI: P1 908**

**GEO 226 Field Geology (2-2) 3 Hours**

Introduction to basic geological field methods and application of geological concepts through field studies of selected regions of North America.

*Note:* 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*

**GERMAN (GER)**

Communication Arts, Humanities &  
 Fine Arts Division, Room B237, (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.

*Prerequisite:* Language Proficiency

**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 is the continuation of GER 221. More emphasis is placed on conversation, reading and writing. In this course the student is introduced to the first literary work in German.

*Prerequisite:* GER 221

**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 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**

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 128 or BSS 128 or 35 WPM

*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 (3-0) 3 Hours**

Provides extensive experience in advanced transcription of medical reports. History and physical examination reports, consultation reports, and operative reports are included for a variety of specialty areas such as cardiology, neurology, and gynecology. Students will be expected to transcribe assigned reports with a high level of accuracy and moderate speed that is expected by local employers.

*Note:* In addition to the three scheduled hours of class time,

students should plan on spending a minimum of four hours per week in the Health Information Technology lab in order to complete the required reports.

*Prerequisite:* HIT 114 (C or better)

*Corequisite:* BIO 111 or BIO 124 (C or better in either)

*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 (C or better)

*Corequisite:* BIO 111 or BIO 124 (C or better in either)

*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 (C or better)

*Corequisite:* BIO 111 or BIO 124 (C or better in either)

*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 173 Medical Office Procedures (3-0) 3 Hours**

Provides students with a foundation of knowledge and skills in the activities performed in the front office of a medical or dental office. Topics include scheduling appointments, telephone techniques, patient education, bookkeeping and banking, maintaining patient records, and managing office medical records.

*Prerequisite:* Language Proficiency



**HIT 174 Professional Experience in Medical Transcription (0-4) 1 Hour**

This course provides students with practical experience in a medical transcription setting. Students will transcribe a variety of medical reports and become familiar with the equipment, workflow, and procedures in an actual work setting. The focus will be on developing speed, accuracy, professional demeanor, and self-confidence.

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.

*Prerequisites:* HIT 115, HIT 116 (C or better in each), BIO 111, AOS 113, and consent of the instructor  
*Course fee*

**HIT 212 Professional Practice in Health Information Technology I (1-15) 4 Hours**

First course of a two-semester sequence of supervised clinical experience in health facilities.

NOTES: 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

*Corequisites:* HIT 271 or HIT 272  
*Course fee*

**HIT 213 Professional Practice in Health Information Technology II (.5-7.5 hours) 2 Hours**

Supervised clinical experience in various areas pertaining to health information.

*Note:* The student will be responsible for his/her transportation to and from the health facility.

*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 (C or better)

*Course fee*

**HIT 217 Health Information Systems and Data Literacy (3-0) 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 (2-0) 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, HIT 118 (C or better in each), and admission into the HIT 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:* HIT 117, HIT 118 (C or better in each), and admission into the HIT Program

### **HIT 273 Professional Practice Experience in Medical Coding (0-6) 2 Hours**

This course provides students with supervised practical experience coding and abstracting medical information in a hospital, physician's office, clinic, or other health care setting. Students will code a variety of medical records and become familiar with the workflow and procedures in an actual work setting.

*Note:* The student will be responsible for his/her transportation to and from the health facility. A satisfactory health services screening must be on file with the College's Health Center prior to the clinical affiliation.

## HISTORY (HST)

Social Science Division, Room A244,  
(847) 543-2047

### **HST 121 History of Western Civilization I (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

*Course fee*

**IAI: S2 902**

### **HST 122 History of Western Civilization II (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 interpretive 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

**HORTICULTURE (HRT)**

Biological & Health Sciences Division,  
Room C140, (847) 543-2042

**HRT 110 Landscape Maintenance (2-2) 3 Hours**

A course designed for those interested in and/or those 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.

*Course fee*

**HRT 111 Basic Horticulture (3-0) 3 Hours**

This is an introductory course that introduces basic plant anatomy, terminology, and functions of plants. Professions working with the environment and culture of plants will be included.

*Prerequisite:* Language and Math Proficiency

**HRT 112 Tree Identification (2-2) 3 Hours**

Identification of deciduous and evergreen trees by their common and botanic names. Emphasis is placed on trees commonly used in landscaping and their outstanding characteristics. Approximately 120 trees will be covered in this course.

*Course fee*

**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 Soils, Fertilizer, and Water (2-2) 3 Hours**

Students will be introduced 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.

*Note:* A basic knowledge of chemistry is helpful.

*Corequisite:* HRT 111

*Course fee*

**HRT 116 Entomology (2-2) 3 Hours**

Studies the importance of insects to man. 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 and Math Proficiency

*Course fee*

**HRT 118 Landscape Graphics (2-2) 3 Hours**

Students are exposed to various methods of collecting and communicating existing and desired information for the purpose of creating a landscape design to meet the needs of the client.

*Prerequisite:* Language and Math Proficiency

*Course fee*

**HRT 119 Plant Pathology (2-2) 3 Hours**

An introductory course in plant pathology covering the biology and management of agents causing disease and plant disorders. Students study these agents and the problems that they cause, along with possible management tools.

*Prerequisite:* HRT 111

*Course fee*

**HRT 170 Arboriculture (2-2) 3 Hours**

A lecture and laboratory course covering the care and maintenance of trees. A good portion of the laboratory teaches the students to climb and prune trees using standard safety practices.

*Note:* Good physical health is required. HRT 112 may be helpful.

*Course fee*

## Horticulture (HRT)

### **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 173 Perennial Flowers (2-2) 3 Hours**

Identification, care, and maintenance of herbaceous plants. Approximately 125 plants will be covered in this course.

*Note:* Field trips and outdoor labs are included.

*Course fee*

*Offered summer only.*

### **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 176 Small Engine Repair and Maintenance (2-2) 3 Hours**

A laboratory course covering proper use, maintenance, and basic repair of power equipment used in horticulture. Emphasis will be on two- and four-cycle small engines used to operate such equipment.

*Course fee*

### **HRT 210 Greenhouse Crop Production (2-2) 3 Hours**

A course covering the production of greenhouse crops and the cultural practices required for growth. 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

*Course fee*

### **HRT 212 Turf Management (2-2) 3 Hours**

Examines the principles and practical knowledge necessary for the establishment and maintenance of high-quality turfgrass stands for use as home lawns, golf courses, athletic fields, parks, and other commercial areas.

*Prerequisite:* HRT 111

*Course fee*

### **HRT 213 Landscape Design (2-2) 3 Hours**

An introduction to and practice of the theory and practical approach to residential landscape design. Students take a design project from concept through final presentation.

*Note:* HRT 112 and HRT 113 are recommended.

*Prerequisite:* HRT 118

*Course fee*

### **HRT 214 Landscape Construction (2-2) 3 Hours**

A lecture and lab course working with the installation of landscapes. Organization, set up, and construction will be covered. Students will be assigned projects that will include design and cost estimates. Handling equipment and actual construction may be included.

*Corequisite:* HRT 118

*Course fee*

### **HRT 215 Computer Landscape Design (2-2) 3 Hours**

The use of AutoCAD for site planning and landscape design used in the creation of landscape plans. Emphasis is placed on practical application of software and hardware to develop working drawings for the landscape industry.

*Note:* CAD 117 is recommended.

*Corequisite:* HRT 118

*Course fee*

### **HRT 216 Natural Areas Management (2-4) 4 Hours**

Restoring and caring for our natural areas has become an important role for a variety of landscape professionals. This class will provide an overview of natural areas restoration and management issues for northern Illinois and southern Wisconsin. Major plant communities for this region such as wetland, prairie and woodland will be addressed in terms of their ecology, key identifying features, management issues and restoration techniques. Fieldtrips will be integrated to provide students with exposure 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:* HRT 111 or BIO 120

*Corequisite:* BIO 126

### **HRT 217 Plant Propagation (2-2) 3 Hours**

A hands-on course focusing on the techniques and procedures involved in propagating plants. Sexual and asexual methods are practiced, and environmental conditions needed to promote growth and development are considered. Seed propagation, cutting propagation, and grafting will be included.

*Corequisite:* HRT 111

*Course fee*

### **HRT 276 Fieldwork (1-15) 3 Hours**

A special project set up by the student and a HRT faculty member to cover a specific area of interest to the student.

*Prerequisite:* 12 hours of HRT (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*

## **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 coordinator-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 and Math Proficiency

**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, coordinator'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

## Human Services Program (HUS and HUX) Humanities (HUM)

### **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 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 a historical background of substance abuse, the addictive process, and approach to treatment. Specific topics addressed include major classifications of abused substances, the resulting of 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.

*Prerequisites:* HUS 118, HUX 170, and SOC 224

### **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

**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.

*Prerequisite:* Language Proficiency

*May be taken four times for credit toward degree*

**HUM 125 Introduction to Fine Arts I (3-0) 3 Hours**

An introductory study of the theory and principles of the fine arts. Includes a survey of art history and major artistic achievements, schools, and trends. For non-art majors. Develops an understanding of aesthetic concepts and theories through studio experience and ungraded art projects.

*Prerequisite:* Language Proficiency

*Course fee*

**IAI: F2 900**

**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**

**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**

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 these and (3) the relation of these concepts and values to current ethical and political issues thereof.

**IAI: H2 903N**

## HUMANITIES (HUM)

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (847) 543-2040

**HUM 121 Introduction to Humanities I (3-0) 3 Hours**

An interdisciplinary course that introduces students to art, literature, music and philosophy of ancient and medieval, western and non-western civilizations.

*Prerequisite:* Language Proficiency

**IAI: HF 902**

**HUM 122 Introduction to Humanities II (3-0) 3 Hours**

An interdisciplinary course that introduces students to art, literature, music, and philosophy of western or non-western civilizations.

*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

*Course fee*

**IAI: F2 905**

## Humanities (HUM) Industrial Electrician (ISE)

### 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.

*Prerequisite:* Language Proficiency

*Offered fall only.*

**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

*Course fee*

**IAI: F2 909**

### HUM 223 Introduction to International Film (3-0) 3 Hours

This is a survey course on the history and aesthetic appreciation of film as an international medium of entertainment, communication, and persuasion. Through viewing and analysis of classic and contemporary films from Europe, Central and South America, Asia, Middle East, and Australia, the student will gain a global understanding of film. Films shown will be mostly works of fiction by internationally recognized filmmakers, but may also include documentaries and animated films.

**IAI: F2 909**

### HUM 225 The Art of Dance (3-0) 3 Hours

This course introduces students to an interdisciplinary approach to 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, musical, tap, and video; psychological and philosophical aspects of movement; and the work of selected choreographers. Students will attend live dance performances at the college, in Lake County, and in the Chicago area. The student will 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**

### HUM 226 Women and the Arts (3-0) 3 Hours

This interdisciplinary humanities course explores the depictions 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. Lectures, discussion/analysis, multimedia, guest

speakers, demonstrations, area performances, visits to museums and galleries, small group discussions and presentations will be used to illuminate the subject matter.

*Prerequisite:* ENG 120 or ENG 121

**IAI: HF 907D**

## INDUSTRIAL ELECTRICIAN (ISE)

Engineering, Math, & Physical Sciences Division,  
Room B162, (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*

## INDUSTRIAL MAINTENANCE & REPAIR (IMR)

Engineering, Math, & Physical Sciences Division,  
Room B162, (847) 543-2044

### **IMR 110 Industrial Pneumatics and Hydraulics (3-0) 3 Hours**

A 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.

### **IMR 111 Machine Components and Repair (2-2) 3 Hours**

This course deals with the construction and repair of machines. Machine parts such as belts, gears, bearings, and fasteners will be discussed and repaired on machinery.

*Prerequisite:* Math Proficiency

*Course fee*

### **IMR 112 Pump Overhaul and Repair (2-2) 3 Hours**

Designed to provide the student with the ability to diagnose, troubleshoot, repair and maintain common types of centrifugal pumps.

*Prerequisite:* Math Proficiency

*Course fee*

*Offered fall only. Offered even years only.*

### **IMR 113 Plumbing and Pipefitting I (2-2) 3 Hours**

Designed to introduce the student to the basic principles and practices of plumbing and pipefitting.

*Prerequisite:* Math Proficiency

*Course fee*

### **IMR 114 Plumbing and Pipefitting II (2-2) 3 Hours**

Designed to provide the student with greater insight into the principles and practice of plumbing and pipefitting.

*Prerequisite:* IMR 113

*Course fee*

### **IMR 115 Carpentry I (2-2) 3 Hours**

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.

*Prerequisite:* Math Proficiency

*Course fee*

### **IMR 116 Carpentry II (2-2) 3 Hours**

Roof framing and interior and exterior trim are covered. 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.

*Prerequisite:* IMR 115

*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 B237, (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 is a continuation of ITL 221 and is designed to increase knowledge of Italian grammar and culture through practice in reading, writing, and speaking the language.

*Prerequisite:* ITL 221

**IAI: H1 900**

**ITL 223 Italian Civilization I (3-0) 3 Hours**

This is the first semester of a course designed to give the advanced student of Italian the opportunity to increase proficiency in the Italian language and knowledge of the Italian culture. A carefully selected series of readings and supplementary materials will provide the basis for the development of language and culture skills.

*Prerequisite:* ITL 222

**IAI: H1 900**

**ITL 224 Italian Civilization II (3-0) 3 Hours**

This is the second semester of a course designed to give the advanced student of Italian the opportunity to increase proficiency in the Italian language and knowledge of the Italian culture. A carefully selected series of readings and supplementary materials will provide the basis for the development of language and culture skills.

*Prerequisite:* ITL 223

**IAI: H1 900**

## **JAPANESE (JPN)**

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (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**

As a continuation of JPN 221, this course increases knowledge of Japanese grammar and culture through practice in reading, listening comprehension, speaking, and reading and writing of Kana and Kanji.

*Prerequisite:* JPN 221

**IAI: H1 900**

## **LIBERAL ARTS & SCIENCE (LAS)**

Vice President, Educational Affairs, Room C213,  
(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 SCIENCE (LSC)**

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (847) 543-2040

**LSC 101 Library Basic Skills (0-2) 1 Hour**

Library Basic Skills is a module designed to help students learn basic library searching skills such as the card catalog, indexes and handbooks of information. Instruction is self-paced and self-scheduled, and utilizes a workbook. Students are tested on concepts from each unit through paper and pencil tests in the Testing Center. The final examination is a practical test in which the student goes to the Reference Department in the Learning Resource Center and answers prepared paper and pencil questions.

*Prerequisite:* Language Proficiency

## **LIBRARY TECHNICAL ASSISTANT (LTA)**

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (847) 543-2040

**LTA 114 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 Coordinator 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:* Twelve hours of LTA courses and consent of LTA coordinator.

## Library Technical Assistant (LTA) Machine Tool Trades (MTT)

### **LTA 115 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 Coordinator or designated LTA faculty and the supervising librarian. Students maintain brief descriptive logs. This course is primarily for students pursuing the Associate Degree in the Library Technical Assistant program.

*Prerequisite:* Twelve hours of LTA courses and consent of LTA coordinator.

### **LTA 121 Introduction to Library Science (3-0) 3 Hours**

Through practical exercises, students learn fundamental processes of automated databases such as online public access catalogs and periodical indexes. Students also search basic reference materials, such as common dictionaries and encyclopedias as well as yearbooks, handbooks, and biographical dictionaries. Intellectual freedom and interpersonal communication within libraries are emphasized. Individual preparation of a bibliography utilizing learned skills is required.

*Prerequisite:* Language Proficiency

### **LTA 171 Audio-Visual Media and Equipment (3-0) 3 Hours**

This course is intended to develop an appreciation for the nature of Audio-Visual materials and an understanding of their use in educational settings. Emphasis will be placed upon the physical operation of common A-V equipment and selection and evaluation of various media.

### **LTA 172 Reference and Public Services I (3-0) 3 Hours**

Print, CD-ROM, Online, Internet and Audio-Visual reference sources in Art, Biography, Literary Criticism, Education, and Business are highlighted. Interpersonal skills in working with patrons are emphasized. Circulation services are outlined. The Reference Department is described in the context of public services.

*Prerequisite:* LTA 121 and at least one computer-related course from the LTA elective list.

### **LTA 173 Reference and Public Services II (3-0) 3 Hours**

Print, CD-ROM, Online, Internet and Audio-Visual reference sources in Current Events, Social Sciences, Life Sciences, Medicine, and Technology are highlighted. Citation of sources is emphasized. Area practices in interlibrary loan and document delivery are discussed. Reference material purchase decisions are outlined.

*Prerequisite:* LTA 121 and at least one computer-related course from the LTA elective list.

### **LTA 272 Cataloging and Classification (3-0) 3 Hours**

Practical preparation for a role as a supervised copy cataloger. Emphasis is on descriptive cataloging of book and non-book materials with AACR2 Rev. and MARC format. Introduction to subject cataloging using Sears List of Subject Headings and classification using Dewey Decimal Classification.

*Prerequisite:* LTA 121

### **LTA 273 Library Materials (3-0) 3 Hours**

Criteria and sources for selection, ordering, and receiving print and non-print materials. Designed to provide solid background in how to develop a collection which is suitable for its clientele.

*Prerequisite:* LTA 121

### **LTA 277 Automation for Libraries (2-2) 3 Hours**

An introduction to automation in all library departments: circulation, technical services, reference, and administration. Applications of micro and mini computers; local area networks, Internet and connectivity are highlighted.

*Prerequisite:* LTA 121 and CIS 120

### **LTA 279 Children's Library Services (3-0) 3 Hours**

The audience for Children's Library Services, infants to young adults, and parents and teachers, is examined. Hands on approaches are used in the exploration of programming and publicity. Discussions and projects involve collection development (including digital resources), policy, and budget issues. Administration, employee presentations, and grant writing are outlined. Networking opportunities and job interviewing are discussed. The Internet for children is highlighted.

*Prerequisite:* LTA 121

## MACHINE TOOL TRADES (MTT)

Engineering, Math, & Physical Sciences Division,  
Room B162, (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, measurement, cut off machines, drilling machines, taps and dies, turning machines, milling machines, grinding machines and general safety.

*Course fee*

*Offered fall and spring only.*

### **MTT 112 Machining Principles (2-2) 3 Hours**

Theory and practices involved in the operation of modern metal cutting machine tools is covered including carbide insert tooling. CNC and Wire EDM applications.

*Offered fall only*

## Machine Tool Trades (MTT) Manufacturing Technology (MFG)

### 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.*

### 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*

### 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

This course is designed to provide a National Credentialing studies class. It 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 112 or instructor approval

*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 program coordinator 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 program coordinator 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 B162, (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.

## **MATH COMPUTER SCIENCE (MCS)**

Engineering, Math, & Physical Sciences Division,  
Room B162, (847) 543-2044

### **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 I (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. 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. *Note:* EXTENSIVE computer time commitment required. Previous programming experience is recommended.

*Prerequisite:* MTH 145 (C or better) or MTH 224 (C or better) or concurrent enrollment in MTH 145 or MTH 224

*Course fee*

### **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 selection, repetition and sequence control structures; object-oriented program design, testing and documentation using good programming style; and arrays, records, files and pointers.

*Note:* Pre-engineering students should enroll in MCS 140.

*Prerequisites:* MTH 108 (C or better) or an appropriate score on the Math Placement Test

### **MCS 142 Computer Programming 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 CIS 211 (C or better) or CIS 216 (C or better)

*Course fee*

*Offered spring only.*

### **MCS 240 Introduction to Computer Systems (3-0) 3 Hours**

This course is designed to fulfill the requirements established by the Association for Computing Machinery (ACM) for its CS3 course. Topics include computer structure, machine language, assembly language, 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 B162, (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 all from a calculator based perspective.

*Note:* This course does not apply to any associate degree or career certificate. Specific electronic calculator required for this course. Contact EMPS division office for details.

*May be taken four times, but any topic only once*

### **MTH 102 Basic Algebra (Variable) 1-4 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.

*Note:* This course does not apply to any associate degree or career certificate program. A specific graphics calculator is required for this course. Contact the EMPS division office for details.

*Prerequisite:* MTH 101 (C or better) or Math proficiency

*May be taken four times, but any topic only once*



### **MTH 104 Geometry (4-0) 4 Hours**

Geometry is equivalent to the concepts course in high school geometry. After a cursory review of algebra the concepts of undefined terms, axioms and postulates, and theorems are introduced. Topics also include plane and solid geometry, properties of congruence, similarity, ratio and proportion, area, perimeter, and volume of basic figures. Constructions and the writing of inductive, deductive, and indirect proofs are included.

*Note:* This course does not apply to any associate degree or career certificate.

*Prerequisite:* MTH 102 (C or better) or an appropriate score on the Math Placement Test

### **MTH 108 Intermediate Algebra (4-0) 4 Hours**

For students who need College Algebra (MTH 122) or a course of comparable difficulty in their curriculum but do not meet the prerequisite. 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.

*Note:* This course does not apply to any associate degree or career certificate. A specific graphics calculator is required for this course. Contact the EMPS division office for details.

*Prerequisite:* MTH 102 (C or better) or an appropriate score on the Math Placement Test

### **MTH 109 Intro to the Graphics Calculator (1-0) 1 Hour**

A course designed to help students prepare for classes requiring the use of a graphics calculator. Primary emphasis will be on topics used in College Algebra (MTH 122), Trigonometry (MTH 123), Finite Mathematics (MTH 127) and Statistics (MTH 222). Students in other disciplines such as the physical sciences may also find this course helpful. Topics will include graphing, finding roots and points of intersection, matrices, fitting a curve to a set of data points

and elementary programming. A specific electronic graphics calculator is required for this course. Contact the EMPS division for details.

*Note:* This course does not apply to any associate degree or career certificate program.

*Prerequisite:* MTH 108 (C or better) or an appropriate score on the Math Placement Test

### **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:* Specific electronic calculator required for this course. Contact EMPS division office for details.

*Offered fall and spring only.*

### **MTH 115 Applied Mathematics II (3-0) 3 Hours**

Practical geometry, measurement of plane and solid figures, precision, accuracy, elementary right triangle trigonometry, law of cosines, and law of sines.

*Note:* A specific electronic calculator 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

*Offered fall and spring only.*

### **MTH 117 Technical Mathematics I (3-0) 3 Hours**

College mathematics for students majoring in technology. Includes algebra, geometry and trigonometry.

*Note:* Specific electronic graphic calculator 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

*Offered fall and spring only.*

### **MTH 118 Technical Mathematics II (4-0) 4 Hours**

Continuation of MTH 117. Major topics are algebra, geometry, vectors, logarithms, electronic graphics calculator, oblique and analytical trigonometry.

*Note:* Specific electronic graphics calculator required for this course. Contact EMPS division office for details.

*Prerequisite:* MTH 117 (C or better) or appropriate score on the Math Placement Test

*Offered spring only.*

### **MTH 121 Mathematics for Elementary Teaching I (3-0) 3 Hours**

Principally designed as the first course for elementary education majors. General education requirements may be fulfilled by enrolling in MTH 141 (Quantitative Literacy). Topics include problem solving, sets, logic, functions, numeration systems, real number system, number theory, probability and statistics.

*Note:* Use of a specific electronic graphics calculator will be integrated throughout the course.

*Prerequisite:* MTH 108 (C or better) or appropriate score on Math Placement Test - AND - 1 year of High School Geometry (C or better) or MTH 104 (C or better)

**MTH 122 College Algebra (4-0) 4 Hours**

Primarily for students who need to continue in mathematics. Topics include matrices, systems of equations, inequalities, absolute values, logarithmic and exponential functions, theory of equations, binomial theorem, progressions, and mathematical induction.

*Note:* A specific electronic graphics calculator is required for this course. Contact EMPS Division Office for details. MTH 122 is not open to those with prior credit in MTH 144, Precalculus. This course will not meet the General Education Math Requirement for first-time college students seeking the AA or AFA degrees.

*Prerequisite:* MTH 108 (C or better) or appropriate score on Math Placement Test - AND - 1 year of High School Geometry (C or better) or MTH 104 (C or better)

**MTH 123 Trigonometry (3-0) 3 Hours**

Primarily for students who need to continue in mathematics. Topics include trigonometric functions and their graphs, identities, trigonometric equations, DeMoivre's Theorem, complex numbers, conic sections, and practical applications.

*Note:* A specific electronic graphics calculator 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 *Corequisite:* MTH 122

**MTH 127 Finite Mathematics I (3-0) 3 Hours**

Designed primarily for 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 electronic graphics 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

**IAI: M1 906**

**MTH 141 Quantitative Literacy (3-0) 3 Hours**

Designed to meet general education mathematics requirements. 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 to test hypotheses; 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:* Use of a specific electronic graphics calculator will be integrated throughout the course.

*Prerequisite:* Math Proficiency - AND - MTH 108 (C or better) or appropriate score on Math Placement Test or two years of High School Algebra (C or better) - AND - 1 year of High School Geometry (C or better) or MTH 104 (C or better)

**IAI: M1 901**

**MTH 144 Precalculus (5-0) 5 Hours**

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:* Use of a specific electronic graphics calculator will be integrated throughout the course. Highly-motivated students have the option of completing this fast-paced course or MTH 122 and MTH 123 as a prerequisite for MTH 145 (Calculus and Analytic Geometry I.)

*Prerequisite:* MTH 108 (C or better) or appropriate score on Math Placement Test - AND - 1 year of High School Geometry (C or better) or MTH 104 (C or better)

**MTH 145 Calculus and Analytic Geometry I (5-0) 5 Hours**

A course in the calculus of algebraic and transcendental functions. Analytic geometry topics are limited to the line and circle. Calculus topics include differentiation and integration of both algebraic and trigonometric functions with applications.

*Note:* Specific electronic graphics calculator 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 the Math Placement Test

**IAI: M1 900**

**MTH 146 Calculus and Analytic Geometry II (4-0) 4 Hours**

MTH 146 is a continuation of MTH 145 which covers techniques of integration, applications of integration, differential equations, parametric equations, polar coordinates and infinite sequences and series.

*Note:* A specific electronic graphics calculator is required for this course. Contact EMPS division office for details.

Prerequisite may also be met with instructor's consent.

*Prerequisite:* MTH 145 (C or better)

**IAI: M1 900**

**MTH 211 Technical Mathematics III (3-0) 3 Hours**

Introductory integral and differential calculus with applications. Topics in analytic geometry also covered. Practical problems related to electronics emphasized.

*Note:* Specific electronic graphics calculator required for this course. Contact EMPS Division office for details.

*Prerequisite:* MTH 118 (C or better) or appropriate score on the Math Placement Test

*Offered fall only.*

## Mathematics (MTH) Mechanical Engineering Technology (MCD)

### MTH 221 Mathematics for Elementary Teaching II (3-0)

3 Hours

Principally designed as the second course for elementary education majors. General education requirements may be fulfilled by enrolling in Quantitative Literacy (MTH 141). Topics include modeling, Cartesian coordinate system, variation, plane and solid geometry, measurement, similarity and congruence, geometric constructions, areas, volume, classroom manipulatives, and computer software.

*Note:* Use of a specific electronic graphics calculator will be integrated throughout the course.

*Prerequisite:* MTH 121 (C or better)

IAI: M1 903

### MTH 222 Elementary Statistics (4-0)

4 Hours

Application of elementary principles of probability, descriptive statistics, an introduction to inferential statistics and elementary computer techniques.

*Note:* Specific electronic graphics calculator required for this course. Contact the EMPS Division office for details.

*Prerequisite:* MTH 108 (C or better) or appropriate score on Math Placement Test - AND - 1 year of High School Geometry (C or better) or MTH 104 (C or better)

IAI: M1 902

### MTH 224 Calculus for Business and Social Science (4-0)

4 Hours

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 electronic graphics 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

*Offered spring and summer only*

IAI: M1 900

### 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:* Prerequisite may also be met with instructor's consent.

*Prerequisite:* MTH 146 (C or better)

*Offered spring only.*

### MTH 227 Ordinary Differential Equations (3-0) 3 Hours

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, 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.

*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 electronic graphics calculator is required for this course.

*Prerequisite:* MTH 122 (C or better) or appropriate score on the Math Placement Test

*Offered spring only.*

IAI: M1 905

### MTH 246 Calculus and Analytic Geometry III (4-0)

4 Hours

MTH 246 is a continuation of MTH 146. Topics include plane curves, parametric equations, polar coordinates, vectors in two and three dimensions, multiple integrals, and partial derivatives. Solid analytic geometry topics to include quadric surfaces cylindrical and spherical coordinates and curves in 3-space.

*Note:* Specific electronic graphics 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)

IAI: M1 900

## MECHANICAL ENGINEERING TECHNOLOGY (MCD)

Engineering, Math, & Physical Sciences Division,  
Room B162, (847) 543-2044

### MCD 111 Manufacturing Processes (3-0)

3 Hours

A survey course of processes, production procedures and materials used in manufacturing are studied; casting, machining, forging, rolling, treatment and production of engineering materials.

### MCD 112 Basic Metallurgy I (3-0)

3 Hours

Introduction to the study of 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.

**MCD 113 Basic Metallurgy II (3-0) 3 Hours**  
Continuation of Basic Metallurgy I (MCD 112) with emphasis on cast irons, non-ferrous metals and their alloys. Foundry casting, machining, forming, welding and powder metallurgy processes are treated.  
*Prerequisite:* MCD 112  
*Offered spring only.*  
*Offered odd years only.*

**MCD 212 Mechanisms (4-0) 4 Hours**  
Study of motion, velocity, and acceleration as pertaining to the design of gears, linkages, and other mechanical assemblies which transmit or convert motion.  
*Note:* Prior completion of Technical Physics (PHY 111) or higher and Technical Mathematics I (MTH 117) or higher are strongly recommended.  
*Offered spring only.*

**MCD 214 Mechanical Design and Drafting (2-2) 3 Hours**  
Design and graphic representation of basic machine parts such as gears, cams, castings, and stampings, redesign of simple mechanisms, piping drawing, and welding representation.  
*Prerequisite:* EGR 121 or DFT 111  
*Course fee*  
*Offered fall only.*

**MCD 215 Machine Design (5-0) 5 Hours**  
The application of empirical and analytical techniques used in the design of mechanical components to safely and effectively transmit force and motion are developed. 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.  
*Note:* Prior completion of PHY 111 or higher level Physics and MTH 117 or higher level Math are strongly recommended.  
*Prerequisite:* EGR 215  
*Offered spring only.*

**MCD 219 Plant Layout and Materials Handling (3-0) 3 Hours**  
Relationship between good plant layout and efficient materials handling. Selection and arrangement of production machinery, product and process layout schemes, techniques of making layouts.  
*Note:* Completion of MTH 117 is strongly recommended.

## MEDICAL IMAGING (MIM)

Biological & Health Sciences Division,  
Room C140, (847) 543-2042

**MIM 110 Introduction to Medical Imaging (3-0) 3 Hours**  
Provides a basic understanding of the role of medical imaging in the health care delivery system. The student will develop basic skills in proper body mechanics, methods of transporting and assisting patients, and gain an understanding of aseptic technique and infection control.  
*Prerequisite:* Language and Math Proficiency  
*Course fee*

**MIM 111 Radiographic Anatomy and Positioning I (4-2) 5 Hours**  
Includes a study of the radiographic anatomy and examination procedure for the chest, abdomen, digestive and urinary tracts, and distal 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  
*Course fee*

**MIM 113 Radiographic Anatomy and Positioning II (4-2) 5 Hours**  
Includes a study of the radiographic anatomy and examination procedure for the proximal upper and lower extremities and the axial skeleton. 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 112 (C or better)  
*Course fee*

**MIM 114 Clinical Practice I (0-16) 3 Hours**  
Supervised competency based clinical practice. Emphasis on routine chest; abdomen, including examinations of the digestive system, urinary tract, and biliary collecting system; and appendicular skeleton.  
*Prerequisite:* MIM 112 (C or better)  
*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 114 (C or better)  
*Course fee*

## Medical Imaging (MIM)

- 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 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.  
*Corequisites:* MIM 111 and MIM 112  
*Course fee*
- MIM 210 Technical Aspects of Patient Care (2-0) 2 Hours**  
Surveys patient communication. Acute situations, trauma radiography, contrast media, and pharmacology are emphasized.  
*Prerequisite:* MIM 115, MIM 116 (C or better in both) and BIO 124  
*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, MIM 116 (C or better in both) and BIO 124  
*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, MIM 116 (C or better in both) and BIO 124  
*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 211, MIM 212, and MIM 213 (C or better in all three)  
*Course fee*
- MIM 215 Clinical Practice IV (0-18) 3 Hours**  
Supervised competency based clinical practice. Continued emphasis on routine and vascular special procedures, surgical, trauma, and mobile radiography. Includes orientation rotations to advanced imaging modalities.  
*Prerequisite:* MIM 211, MIM 212, and MIM 213 (C or better in all three)  
*Course fee*
- MIM 216 Computed Imaging (2-0) 2 Hours**  
Covers computer anatomy and functions related to computed tomography and magnetic resonance imaging. Includes physics and basic imaging parameters of these modalities. Case studies will be presented.  
*Prerequisite:* MIM 211, MIM 212, and MIM 213 (C or better in all three)
- 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
- MIM 252 CT Physics and Instrumentation (3-0) 3 Hours**  
This course introduces the student to the principles of computed tomography and the equipment used to produce the CT image. CT safety considerations and quality assurance techniques are also presented.  
*Prerequisite:* Admission to the CT Program

**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 Procedures (2-0) 2 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.

*Prerequisite:* Admission to the CT Program

**MIM 255 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:* Registered Radiologic Technologist or registry-eligible graduates of a Medical Imaging Program or BIO 124 (C or better)

**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 terminal competencies not previously demonstrated. In addition, students will perform a minimum of five competencies previously demonstrated and selected at random from those required for eligibility for certification 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 (0-30) 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 credit toward degree*

**MIM 273 CT Practicum (0-15) 1.5-3 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.

*Prerequisite:* Admission to the MRI Program

*Course fee*

*May be taken twice for credit toward degree*

## MULTIMEDIA COMMUNICATIONS (COM)

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (847) 543-2040

**COM 111 Introduction to Multimedia (3-0) 3 Hours**

We'll explore the variety of hardware and software now used to produce multimedia, from simple audience-oriented presentations to highly interactive CD-ROM programs.

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 multimedia industry. Students will develop the design, storyboards, and prototype for a project.

*Course fee*

**COM 115 Internet Fundamentals (3-0) 3 Hours**

Addresses in detail everything you 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, Telnet, FTP, Chat, Gopher, Usenet, and the World Wide Web. You will get step by step instructions on how to access, research and retrieve academic, personal and professional information.

*Course fee*

**COM 116 Developing Web Pages (3-0) 3 Hours**

This course is a thorough coverage of developing web pages with HTML. Students will use the HTML language to develop web pages that could be used in any professional setting. Students will examine page and site design concepts with an emphasis on interface design for good navigation. Style rules and Style sheets will be introduced and used in pages developed for classes. Students will also examine the technology of JavaScript and Java applets and include both in assigned pages.

*Course fee*

**COM 172 Graphics for the Web (1-0) 1 Hour**

Graphics for the Web will introduce students to the basics of producing Web graphics using popular software. Students will create and optimize graphics, work with vector and bitmap graphics, create animated GIFs, create image maps, and add graphical text to Web-based images.

*Course fee*

**COM 173 Introduction to Digital Sound (3-0) 3 Hours**

Introduction to Digital Sound will introduce students to the basics of producing audio for the web and CD ROM. Students will optimize audio by using popular audio software.

*Course fee*

## Multimedia Communications (COM) Music (MUS)

### COM 216 Scripting for Multimedia (3-0) 3 Hours

This course is geared toward web page designers who need to incorporate advanced control management and interactive elements into their web pages through scripting languages. Students will use the JAVA language to write their own scripts for their web pages which will provide functions such as interactivity, create software to read and manipulate forms, and set "Cookies" to record information on users visiting a site. Advanced features of Netscape and Microsoft Internet Explorer will be introduced and used in web pages.

*Prerequisite:* COM 116

*Course fee*

### COM 217 Multimedia Authoring (3-0) 3 Hours

This course is geared toward multimedia designers who will be creating kiosks, CD ROM software, marketing and educational software, and interactive sites. Students will use a popular authoring software package to create an interactive multimedia presentation. The design, storyboarding, prototyping, testing and production techniques for creating a multimedia package will be followed with the final project.

### COM 218 Building Commercial Websites (3-0) 3 Hours

This course provides information and skills for students seeking to create web sites with secure transactions, information transfer, and promotions. Students will set up sites using commercial software designed specifically for Online Commerce and can decide to continue the portfolio assignment as an actual presence for an organization. Students must already have web page development skills.

*Prerequisite:* COM 116

*Course fee*

### COM 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:* COM 111 and COM 115 and COM 116

### COM 256 Web Editing (3-0) 3 Hours

Students will use Macromedia Dreamweaver to create web pages, manage web sites, and create highly interactive web pages. Students will use the features packaged with Dreamweaver as well as download behaviors and commands from the web. Students will use layers and behaviors to create highly interactive pages.

*Course fee*

### COM 257 Interactive Animation (3-0) 3 Hours

Students will create animated projects for the web and for CD ROM using Macromedia Flash.

*Prerequisite:* COM 111, 116, and 216

*Course fee*

### COM 299 Selected Topics in Multimedia (Variable) 1 Hour

This course is designed to meet the needs of students for specialized instruction in current multimedia topics. Topics will be identified for each section of the course. Credit will be from one to three hours depending upon the topic.

*Course fee*

*May be taken four times, but any topic only once*

## MUSIC (MUS)

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (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.

*Course fee*

*May be taken four times for credit toward degree*

### MUS 121 Voice Class I (1-1) 1 Hour

Introduction to singing techniques beginning with group singing and gradually introducing solo singing. No vocal background is needed. For non-music majors.

*Course fee*

### 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 fee*

### MUS 123 Wind Ensemble (0-2) 1 Hour

Understanding and enjoyment of instrumental music through selected examples of standard instrumental ensemble literature of all periods.

*Course fee*

*May be taken four times for credit toward degree*

### MUS 124 Introduction to Music (3-0) 3 Hours

A non-technical listening course emphasizing recognition and understanding of various styles of serious music, past and present.

**IAI: F1 900**

### MUS 126 Music Skills for Classroom Teachers (3-0) 3 Hours

An introduction to basic instrumental and vocal skills for use in general teaching. Intended for non-music majors.

**MUS 127 Fundamentals of Music (2-0) 2 Hours**

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.

*Note:* Students should combine this course with Piano Class I (Mus 145, 1 credit hour).

**MUS 128 Theory of Music I (4-0) 4 Hours**

A concentrated study of musical language including analysis, recognition, and writing of chords and harmonic progressions. Ear-training and sight-reading are also offered.

*Note:* Students without keyboard background should combine this course with Piano Class I (Music 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.

**MUS 129 Theory of Music II (4-0) 4 Hours**

Written four-part harmony, analysis of form and harmony, dominant #7 chord and continuation of ear training. Continuation of MUS 128.

*Prerequisite:* MUS 128

**MUS 140 20th Century Music (3-0) 3 Hours**

A non-technical listening course emphasizing recognition and understanding of various styles of 20th century music including jazz and popular music. Emphasis placed on music through recordings, scores, and performance of representative works of each period. Comparison of styles and consideration of music in relation to other fine arts and to the general historical background.

**IAI: F1 902**

**MUS 141 Applied Music-Voice I (Variable) 1-2 Hours**

This course is designed for the vocalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

**MUS 143 Applied Music Piano I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

**MUS 144 Applied Music Jazz Piano (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 max. of 4 hrs. toward degree*

**MUS 145 Piano Class I (1-1) 1 Hour**

An introduction to basic playing, keyboard chords, and music reading. Interpretation of various music styles is considered. For beginners or those who have not studied for a considerable time.

*Note:* Students should combine this course with Fundamentals of Music (MUS 127).

*Course fee*

**MUS 146 Piano Class II (1-1) 1 Hour**

A continuation of MUS 145. Provides additional opportunity for study and practice of more advanced compositions for piano.

*Prerequisite:* MUS 145

*Course fee*

**MUS 147 Guitar Class I (1-1) 1 Hour**

Introduction to the fundamentals of the guitar for development of playing skills, reading, improvisation and technique. Explores the use of music theory as it relates to the guitar in terms of keys, chord construction and progression. Emphasis on variety of songs and historical styles for repertoire development.

*Note:* MUS 127 Fundamentals of Music is strongly recommended as a companion course for students who need work in reading pitches and rhythms.

*Course fee*

**MUS 148 Guitar Class II (1-1) 1 Hour**

A continuation of MUS 147. It develops and advances skills learned and introduces new concepts and techniques.

*Prerequisite:* MUS 147

*Course fee*

**MUS 160 Applied Music - Violin I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

## Music (MUS)

### **MUS 161 Applied Music-Viola I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

### **MUS 162 Applied Music Cello I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

### **MUS 163 Applied Music-String Bass I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

### **MUS 164 Applied Music-Flute I (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

### **MUS 165 Applied Music-Oboe 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 max. of 4 hrs. toward degree*

### **MUS 166 Applied Music-Clarinet 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 max. of 4 hrs. toward degree*

### **MUS 167 Applied Music English 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 max. of 4 hrs. toward degree*

### **MUS 168 Applied Music-Bassoon 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 max. of 4 hrs. toward degree*

### **MUS 169 Applied Music-Bass Clarinet 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 max. of 4 hrs. toward degree*

**MUS 180 Applied Music-Saxophone 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 max. of 4 hrs. toward degree*

**MUS 181 Applied Music-Trumpet 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 max. of 4 hrs. toward degree*

**MUS 182 Applied Music-French 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 max. of 4 hrs. toward degree*

**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 max. of 4 hrs. 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 max. of 4 hrs. 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 max. of 4 hrs. 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 max. of 4 hrs. 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 max. of 4 hrs. toward degree*

## Music (MUS)

- 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 max. of 4 hrs. 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.  
*Course fee*  
*May be taken four times for credit toward degree*
- MUS 224 Music Literature (3-0) 3 Hours**  
The historical development of western music, including various musical styles and periods and the contribution of key composers in shaping the western musical tradition.  
**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 max. of 4 hrs. 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 max. of 4 hrs. 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 max. of 4 hrs. toward degree*
- MUS 245 Piano Class III (1-1) 1-2 Hours**  
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*
- MUS 260 Applied Music Violin II (Variable) 1-2 Hours**  
This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.  
*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.  
*Course fee*  
*May be taken 4 times for max. of 4 hrs. toward degree*
- MUS 261 Applied Music Viola II (Variable) 1-2 Hours**  
This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.  
*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.  
*Course fee*  
*May be taken 4 times for max. of 4 hrs. toward degree*

**MUS 263 Applied Music-String  
Bass II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

**MUS 264 Applied Music-Flute II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

**MUS 266 Applied Music-Clarinet II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

**MUS 280 Applied Music-  
Saxophone II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

**MUS 281 Applied Music-Trumpet II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

**MUS 282 Applied Music French  
Horn II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

**MUS 283 Applied Music-  
Trombone II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

**MUS 286 Applied Music-  
Percussion II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

**MUS 287 Applied Music-Guitar II (Variable) 1-2 Hours**

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

## Music (MUS) Nursing (NUR)

### MUS 288 Applied Music- Electric Bass II (Variable) 1-2 Hours

This course is designed for the instrumentalist who is a beginner or advanced and intends to become seriously involved with music. This is a course of independent study on a private lesson basis.

*Note:* No more than 4 credit hours earned in MUS 141, MUS 143-144, MUS 160-169, MUS 180-188, MUS 241, MUS 243-244 and MUS 260-288 will count toward an associate degree in arts or science.

*Course fee*

*May be taken 4 times for max. of 4 hrs. toward degree*

## NURSING (NUR)

Nursing Education, Room D208, (847) 543-2340

### 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. Students not attending the first day of class will be dropped from enrollment. Attendance at each scheduled class and clinical laboratory is mandatory. 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 ENG 93 or ENG 108 or ENG 109 or ENG 121 and 16 years of age.

*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 173 Concepts for Role Transition (1-1) 2 Hours

The course is designed to provide students with concepts needed for the licensed practical nurse's transition to the Associate Degree Program in Nursing. The concepts identified will provide the student with the information necessary for upward mobility in NUR 271. Content will focus on the registered nurse's role in client assessment, nursing diagnosis, planning, intervention, evaluation, and documentation. Clinical decision-making, collaboration and interventions, as well as nursing helping methods are integrated into this course.

*Prerequisites:* Graduate of a State of Illinois approved LPN program within the last five years, and admitted to the NUR Program, and BIO 124 (C or better)

### 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*

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.

**PDS 123 Human Relations and  
Cultural Diversity (1-2) 2 Hour**

This course will assist students to gain an appreciation for cultural diversity and how it affects their interactions with others. Through an interactive format, students will gain an increased awareness of, and sensitivity to, the dimensions, attitudes, behaviors, and actions related to their own culture and to the cultures of others. Students will become aware of the ways differences of race, class, religion, gender, sexual identity, age, and disabilities have shaped people and cultural institutions in American society. Students will have to opportunity to examine and analyze the impact of bias, stereotype, prejudice, privilege, discrimination, and oppression within self and between groups. The skills necessary to interact effectively across cultures, and to serve as change agents for promoting positive human relations in a diverse and complex society, will be explored and developed.

*Prerequisite:* Language Proficiency

## **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

*May be taken four times, but any topic only once*

## **PHILOSOPHY (PHI)**

Communication Arts, Humanities & Fine Arts  
Division, Room B237, (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**

**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

**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 129 Philosophical Issues in Contemporary Feminism (3-0) 3 Hours**

A study of the questions of whether there is a distinction between masculine and feminine character, whether one's sex imposes moral obligations or rights, what might be meant by the "equality of the sexes," and what effect sexual equality may have on the institutions of marriage, the family, personal relations. Both classical and contemporary philosophical writers will be read.

*Prerequisite:* Language Proficiency

**PHI 221 Asian Philosophy (3-0) 3 Hours**

This course provides an introduction to influential ideas and thinkers of India, China, and Japan. Philosophically, it presents a range of theories regarding the self, reality, knowledge and politics. These theories respond to specific situations in these Asian cultures as well as to what other thinkers have said, giving students a sense of the 'extended dialogue' which represents these traditions. Finally, students will see how the ideas and problems addressed differ from those in the western philosophical tradition. Though much of the course will center on the reading, analysis, and discussion of texts, students will participate in cultural activities related to the philosophical ideas studied. For instance, in the context of Japanese thought and its extensive philosophical vocabulary related to aesthetics, students may participate in a Tea Ceremony at the Japan Information Center in Chicago as well as visit the Japanese garden at the Chicago Botanical Gardens.

## PHLEBOTOMY (MLT)

Biological & Health Sciences Division,  
Room C140, (847) 543-2042

**MLT 110 Introduction to Medical Lab Technology (1-2) 2 Hours**

Introduces the roles of medical laboratory personnel in the health care system. Includes professionalism, communication, basic laboratory math, medical ethics, CLIA-waived testing, legal implications of laboratory testing, and educational preparation and certification of laboratory personnel.

*Prerequisite:* Language and Math Proficiency

*Course fee*

**MLT 115 Phlebotomy Techniques (1-2) 2 Hours**

Focuses on development of skills in performing phlebotomy procedures. Includes 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:* MLT 110 (C or better)

*Course fee*

**MLT 116 Clinical Phlebotomy (0-7) 2 Hours**

Provides the student with supervised clinical practice of current phlebotomy techniques. Students will develop skill in performing phlebotomy procedures in various health care settings. Includes proper use of equipment, current safety standards, medical and legal policies and regulations, interpersonal skills, and correct transport, collection, and preparation for laboratory testing.

*Prerequisite:* MLT 110 and MLT 115 (C or better in both)

*Course fee*

## PHYSICAL EDUCATION (PED)

Biological & Health Sciences Division,  
Room C140, (847) 543-2042

**PED 121 Individual Sports I (Variable) 0.5-1 Hour**

The demonstration and instruction of skills and techniques in individual sports. Participation in these sports and instruction in the rules and strategies involved.

*Note:* No more than 4 credit hours earned in PED 121 and/or PED 127 will count toward an associate degree. *Attempted enrollment in excess of this limit will result in the following error: Requisites not met for class, not enrolled.* Students should consult the class schedule for sports offered during a particular semester.

*Course fee*

**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.

*Note:* No more than 1 credit hour earned in PED 123 will count toward an associate degree. *Attempted enrollment in excess of this limit will result in the following error: Requisites not met for class, not enrolled.* Students should consult the class schedule for sports offered during a particular semester.

**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.

*Note:* No more than 4 credit hours earned in PED 121 and/or PED 127 will count toward an associate degree. Students should consult the class schedule for sports offered during a particular semester.

**PED 128 Introduction to Recreation (3-0) 3 Hours**

This course is designed to introduce the student to the historical and philosophical aspects of recreation and the factors that influence use of leisure time. The nature, scope, and importance of recreational activities in a school and community setting are covered along with program development for the various age groups. *Note:* Students will spend lab time in local elementary schools during the second half of the semester.

*Prerequisite:* 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.

*Note:* Expenses for group projects (\$35-\$50) assumed by the students.

*Prerequisite:* Language Proficiency

*Course fee*

**PED 140 Contemporary Health Issues (2-0) 2 Hours**

Basic human physiology, nature of disease, and principles and problems of personal health.

*Prerequisite:* Language Proficiency

**PED 141 Theory and Practice of Fitness (1-2) 2 Hours**

This course is intended to teach students basic physiological concepts of fitness as well as provide regularly scheduled opportunities to develop their aerobic fitness capacities.

**PED 148 Recreation Operations (3-0) 3 Hours**

An introductory course involving the organizational, management, and administrative aspects of conducting recreational programs and activities.

*Prerequisite:* Language Proficiency

**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.

*Prerequisite:* 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.

*Note:* Students will spend lab time in local elementary schools during the second half of the semester.

*Prerequisite:* Language Proficiency

**PED 221 Introduction to Physical Education (2-0) 2 Hours**

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.

*Prerequisite:* Language Proficiency

**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.

*Prerequisite:* 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.

*Prerequisite:* 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.

*Prerequisite:* 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.

*Prerequisite:* Language Proficiency

**PED 228 First Aid (Variable) 0.5-2 Hours**

Intended for those interested in the care and prevention of injuries and is designed to emphasize the principles of safety and first aid. Skills and techniques in first aid are presented along with development of personal practices aimed at reduction of accidents.

*Course fee*

**PED 229 Experience in the Out-of-Doors (Variable) 2-3 Hours**

Extends the classroom into the out-of-doors. Outdoor experiences are provided in a variety of natural areas through field trips. Instructional emphasis is placed on how to move through these areas with minimum environmental impact and how to live within them through various outdoor activities such as camping and hiking.

*Note:* No more than 3 credit hours may count toward an associate degree.

*Course fee*

*May be taken twice, but any topic only once*

**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.

*Prerequisite:* 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

*May be taken four times, but any topic only once*

**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

**PHYSICS (PHY)**

Engineering, Math, & Physical Sciences Division,  
Room B162, (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 and Math Proficiency

*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 recommended as a corequisite.

*Prerequisite:* MTH 145

*Course fee*

*Offered fall and spring only.*

**IAI: P2 900L**

**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.*

**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

**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

## **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**

## Psychiatric Rehabilitation (PRS) Psychology (PSY)

### PRS 113 Health Skills for Psychiatric Rehab (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**

### 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

### PSY 129 Psychology of Women (3-0) 3 Hours

The psychological study of women will provide an opportunity to critically examine many of the historical and current views of femininity. It will draw empirical and theoretical contributions from all areas of psychology to provide a firmly based and comprehensive understanding of the nature and potential of women.

*Prerequisite:* PSY 121 (C or better)

### PSY 221 Educational Psychology (3-0) 3 Hours

This course reviews human behavior and the conditions, both physical and social, by which it is modified. Special attention is given to formal education, situations, and problems.

Psychological principles in the areas of teacher and student characteristics and needs, social-emotional-sexual-intellectual development, learning, motivation, and special education areas such as learning disabilities and the culturally different student receive special emphasis.

*Prerequisite:* PSY 121 (C or better)

### PSY 222 Child Growth and Development (3-0) 3 Hours

This course reviews the physical, social, emotional, and cognitive development of the child from conception through adolescence. Methods of studying children both individually and collectively are discussed.

*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)

## Psychology (PSY) Refrigeration and Air Conditioning (RAC)

### 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)

### 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)

## REFRIGERATION AND AIR CONDITIONING (RAC)

Engineering, Math, & Physical Sciences Division,  
Room B162, (847) 543-2044

### RAC 110 Theory of Refrigeration (3-3) 4 Hours

This course consists of lectures, demonstrations and lab experiences in the area of basic refrigeration, theory, and practice. The functioning and operating characteristics of the mechanical refrigeration system including, condensers, evaporators, compressors, refrigerant control devices, refrigerants, test equipment and special service procedures connected with the basic refrigeration cycle will be 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*

### RAC 111 Domestic Refrigeration Systems (3-3) 4 Hours

Service needs of the domestic refrigeration industry including servicing of domestic refrigerators, freezers, icemakers, etc. covered. Various types of electric controls including thermostats, defrost controls, relays, and protective devices are studied. System malfunction diagnosis and corrective procedures are presented and practice.

*Note:* The student will be required to provide their own basic tools.

*Prerequisite:* RAC 110 and RAC 174

*Course fee*

### RAC 112 Residential Air Conditioning Systems (3-3) 4 Hours

The course will cover the basic principles, practices and operation of air conditioning equipment used for residential cooling. Laboratory work includes operating, testing and troubleshooting various types of air conditioning equipment and a basic understanding of load calculations.

*Prerequisite:* RAC 110 and RAC 174

*Course fee*

*Offered summer only.*

### RAC 113 Commercial Refrigeration Systems (3-3) 4 Hours

Various types of installations are studied along with the product to be cooled, the desired temperature to be maintained, and humidity conditions. Problems involving system balance and component capacity and use of heat load charts are presented.

*Note:* The student will be required to provide their own basic tools.

*Prerequisite:* RAC 110 and RAC 174

*Course fee*

### RAC 114 Commercial Air Conditioning Systems (3-3) 4 Hours

Special attention is given to the cooling and heating requirements for various commercial structures and the selection of equipment to meet these needs. Calculations and problems coordinated with laboratory operations, heat gain, heat loss calculation, humidification and dehumidification are included.

*Note:* The student will be required to provide their own basic tools.

*Prerequisite:* RAC 110 and MTH 115

### RAC 115 Installation and Service Practice for Heating and Air Conditioning (2-4) 4 Hours

Provides experiences in the installation and service of residential and commercial heating and air conditioning equipment including selection, layout, troubleshooting and code requirements.

*Note:* The students will be required to provide their own basic tools.

*Prerequisite:* RAC 112 and RAC 118 and RAC 119

*Course fee*

## Refrigeration and Air Conditioning (RAC)

### **RAC 117 Refrigeration Installation and Service Problems (2-4) 4 Hours**

Installation procedures and service techniques used in commercial refrigeration and air conditioning, including piping techniques, codes, preventive maintenance, multiple systems, and system accessories.

*Note:* The students will be required to provide their own basic tools.

*Prerequisite:* RAC 110 and RAC 113 and RAC 119

*Course fee*

### **RAC 118 Residential Heating Systems (3-3) 4 Hours**

Oil burners, high pressure and vaporizing; electric heat, various types including panels, baseboards, valance and electric furnaces; heat pumps, gas heat, installation and servicing.

*Note:* The students will be required to provide their own basic tools.

*Prerequisite:* RAC 110 and RAC 174

*Course fee*

### **RAC 119 Electric Motors and Controls (3-3) 4 Hours**

Provides background in the theory of operations, application and installation and troubleshooting of electrical control circuits and control devices used in refrigeration, heating, and air conditioning. Covers the basic types of motors used in the industry, their operation and application.

*Note:* The student will be required to provide their own basic tools.

*Prerequisite:* RAC 110 and RAC 174

*Course fee*

### **RAC 171 Refrigeration and Air Conditioning Code (3-0) 3 Hours**

Offer students an opportunity to understand and learn the requirements placed on contractors and installation personnel involved in layout and installation of major refrigeration, heating and air conditioning equipment and will attempt to cover national, state, and local codes which govern such installations.

*Prerequisite:* RAC 110

### **RAC 172 Special Problems in Refrigeration and Air Conditioning (Variable) 1-3 Hours**

Individual research and projects in the area of a student's interest, involving significant effort in problem analysis, data collection, and the development of appropriate solutions.

Also, offered to groups if significant interest exists in specific areas such as solar energy, energy conservation, etc.

*Note:* Hours or credit would be arranged with instructor.

*Prerequisite:* RAC 110 and RAC 174 and RAC 119

### **RAC 173 Air Movement and Ventilation (3-2) 4 Hours**

Proper methods and techniques involved in the design, sizing, and balancing of complete ventilation systems covered. Also covers special instruments used to measure air properties and air movement.

*Note:* The students will be required to provide their own basic tools.

*Prerequisite:* RAC 110 and RAC 112

*Course fee*

### **RAC 174 Applied Electricity (3-3) 4 Hours**

Basic AC and DC circuitry, laws of electricity, uses of meters, and safety procedures are included in the course. Emphasis is placed on application of electrical wiring to heating, refrigeration, and air conditioning. Practical techniques in wiring and parts of National Electrical Code are studied.

*Note:* The students will be required to provide their own basic tools.

*Course fee*

### **RAC 175 Pneumatic Control Systems (3-3) 4 Hours**

Provides a background in the theory of operation, application and installation of pneumatic control circuits and control devices used in heating and air conditioning. Also covers electric devices used in conjunction with pneumatic controls.

*Note:* The student will be required to provide their own basic tools.

*Prerequisite:* RAC 110 and RAC 174 and RAC 119 and RAC 114

*Course fee*

### **RAC 176 Certification Preparation (1-2) 2 Hours**

This class focuses on material pertinent for students to pass the EPA mandated Section 608 Refrigeration Certification exam including all three certification types. Included in the course are both hands on and written material on: ozone depletion, Clean Air Act, Montreal Protocol, CFC refrigerant replacements, recovery cylinders, shipping and transportation of refrigerants and system operational pressures. Hands on experience includes: leak detection of HFC's substitute refrigerant replacement and recharging techniques, refrigerant recovery and reclaiming, and basic system troubleshooting.

*Corequisite:* RAC 110

*Course fee*

### **RAC 177 Hydronic Heating Systems (3-3) 4 Hours**

To provide experiences in the operation, layout, selection and troubleshooting of residential and light commercial boilers.

Includes hot water and steam systems.

*Prerequisites:* RAC 118 and RAC 174

## ROBOTICS (ROB)

Engineering, Math, & Physical Sciences Division,  
Room B162, (847) 543-2044

### **ROB 111 Introduction to Robotics (2-2) 3 Hours**

An overview of the definitions, classifications, components, sensors, control systems, interface hardware, and socio-economic implications related to the implementation of industrial robots. The course is intended to be an introductory course providing information to be used in sequential courses in the areas of maintenance, application, and programming of industrial robots.

*Prerequisite:* Language and Math Proficiency  
*Course fee*

### **ROB 112 Automated Systems Control (2-2) 3 Hours**

This course is designed to give students technical knowledge related to the operation of devices used to monitor and control automated systems. Mechanical, electrical and electronic components will be studied in detail in terms of theory of operation and application. The use of microprocessors as primary control component is the major topic of the second half of the course.

*Prerequisite:* ROB 111  
*Course fee*

## RUSSIAN (RUS)

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (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 is a continuation of RUS 221 and is designed to increase knowledge of Russian grammar and culture through practice in reading, writing, and speaking the language.

*Prerequisite:* RUS 221  
**IAI: H1 900**

## 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

## **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**

## **SPANISH (SPA)**

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (847) 543-2040

### **SPA 121 Beginning Conversational Spanish (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.

### **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

### **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**

A continuation of Spanish 221. Students encouraged to work in language laboratory one hour per week.

*Prerequisite:* SPA 221

**IAI: H1 900**

**SPA 223 Spanish Civilization I (3-0) 3 Hours**

Designed to give the advanced student of Spanish the opportunity to increase his proficiency in the Spanish language. A careful selection of readings of cultural and historical values will provide the writing and conversational material needed to meet the objectives of the course.

Filmstrips of high cultural significance will serve to bring into focus various aspects of the Hispanic world and instigate spontaneous oral commentaries.

*Prerequisite:* SPA 222

**IAI: H1 900**

**SPA 224 Spanish Civilization II (3-0) 3 Hours**

A survey of Hispanic literature requiring competence in both conversation and composition. A continuation of SPA 223.

*Prerequisite:* SPA 223

**IAI: H1 900**

## SURGICAL TECHNOLOGY (SRG)

Biological & Health Sciences Division,  
Room C140, (847) 543-2042

**SRG 110 Introduction to Surgical Technology (3-4) 5 Hours**

Focuses on orientation to the role of surgical technology in the health care setting including explanation of healthcare organizations, surgical team members, communication skills, and ethical, moral, and legal responsibilities. Presents concepts of sterilization, disinfection, asepsis, and surgical environment as they relate to clinical role and care of the patient. In laboratory setting, emphasis is placed on principles and practice related to asepsis, surgical environment and identification and utilization of commonly used surgical instruments, equipment and supplies, processing and care of instruments, distribution of supplies, and inventory control.

*Prerequisites:* BIO 111 or BIO 124 (C or better in either), and admission to the Surgical Technology Program

*Course fee*

**SRG 111 Practice Principles of Surgical Technology (3-6) 5 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, which includes the 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) hours lab 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 Technology Seminar (3-0) 3 Hours**

Focuses on an in-depth view of the career role of the surgical technologist and preparation for the Surgical Technology National Certification Examination. Previously covered topics are reviewed. 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)

**SRG 115 Surgical Technology Internship (1-12) 3 Hours**

Focuses on performance of surgical technology role in selected surgical sites. Student will demonstrate clinical proficiency to an employment-acceptable level in general surgical procedures and commonly performed specialty procedures. Includes possible clinical experience in trauma, transplant, and procurement surgeries.

*Prerequisite:* SRG 113 (C or better)

*Course fee*

## Surgical Technology (SRG) Theatre (THE)

### SRG 116 Introduction to Microbiology and Pathophysiology (3-0) 3 Hours

Presents concepts of microbiology, immune response and wound healing in response to injury, cancer or pathogens. Discusses health and wellness and the effects of internal and external sources of stress.

*Prerequisites:* SRG 111 (C or better)

### 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

## THEATRE (THE)

Communication Arts, Humanities &  
Fine Arts Division, Room B237, (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: FI 907

### 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

### 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

### 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 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

### 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*

## VOCATIONAL SKILLS TRAINING (VST)

Adult and Community Education Division,  
Building 4, (847) 543-2021

VST courses do not apply to any associate degree or career certificate.

### **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.

*Course fee*

### **VST 499 Introduction to Telecommunications (2.5-0) 2.5 Hours**

Introduction to Telecommunications is a forty-hour course that provides a realistic familiarization with the "Physical Layer" systems of the telecommunications industry. The systems covered in this course include Copper-Based Data, Voice/Video Cabling systems, and Fiber Optic cabling systems that are used throughout the telecommunications industry. This program provides students with the introductory concepts and some of the hands-on training required, of entry level positions, in the telecommunications industry.

### **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.

*Course fee*

### **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.

*Course fee*

### **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.

*Course fee*

### **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.

### **VST 722 Word Processing (1-2) 2 Hours**

Students will learn basic word processing skills.

### **VST 723 Data Base (2-2) 3 Hours**

Students will learn the basics of simple electronic filing on an IBM computer.

## **WATER-WASTEWATER (WWW)**

Engineering, Math, & Physical Sciences Division,  
Room B162, (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.

### **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.

### **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. The first class meeting will be at the High School Technology Campus. All other class meetings will be held at an off-campus lab.

*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*

## **WELDING (WLD)**

Engineering, Math, & Physical Sciences Division,  
Room B162, (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**

Allows students the opportunity to experience and study supplemental skills required in the metals fabrication trades. Continuation of blueprint reading skills, measurement and layout, inspection and testing, metal finishing, and use of processing and machine tools.

*Prerequisite:* WLD 170 and WLD 113 and WLD 172 or WLD 175 or WLD 178

*Course fee*

### **WLD 170 General Welding (1-2) 2 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.

*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.

*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.

*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.

*Prerequisite:* WLD 170 and WLD 172

*Course fee*

**WLD 175 Gas Metal Arc Welding (2-2) 3 Hours**

This course involves the theory and skill development of GMAW (mig or “wire-feed” process) and FCAW (flux core) arc welding. Students will have the opportunity to study the various aspects and application of this process with steel, aluminum and stainless steel under a variety of conditions. Machine set-up, operation, troubleshooting, maintenance and repair are incorporated throughout the course.

*Prerequisite:* WLD 170

*Course fee*

**WLD 176 Welding Certification (Variable) 1-3 Hours**

Designed to allow the student to prepare for and complete certification or qualification testing utilizing chosen process(es). Standard welding codes (ASME, AWS, API) will be used, or those codes specified by a current or potential employer.

*Note:* Student shall be responsible for the costs of any testing or lab reports performed by outside agents. Individuals or groups with special needs or requirements may enroll with the consent of the program coordinator.

*Prerequisite:* WLD 170 and WLD 171 and any one of the following WLD 174 or WLD 175 or WLD 178

*Course fee*

*May be taken three times for credit toward degree*

**WLD 178 Gas Tungsten Arc Welding (2-2) 3 Hours**

This course involves the theory and skill development of GTAW (Tig or “Heliarc” process) arc welding. Students will have the opportunity to study the various aspects of this process with both ferrous and non-ferrous metals under a variety of conditions. Machine set-up, operations, troubleshooting, maintenance and repair are incorporated throughout the course.

*Prerequisite:* WLD 170

*Course fee*

## CONTINUING EDUCATION COURSES

The Continuing Education Vocational Skills courses listed below have no basic skills prerequisites. This list will change each semester as courses are added and deleted based upon needs assessment. Complete descriptions and other information regarding these and other courses offered by Continuing Education may be found in the class schedule or obtained from the Office of Continuing Education (847) 543-2022.

VALH 1	Physical Assessment	.5 credit
VALH 3	Radiography Seminar	2 credits
VALH 4	Medical Imaging Pathology	2 credits
VALH 5	Pharmacology for Allied Health	1 credit
VALH 7	EKG Interpretation	1 credit
VALH 8	Rehabilitation Nursing	5 credits
VALH 9	12-Lead ECG Interpretation	1 credits
VALH 15	Current Gerontological Issues/Nursing	2 credits
VALH 17	Gerontological Care	.5 credits
VALH 20	Current Nursing Practice Update	7 credits
VALH 22	Perioperative Nursing	2 credits
VALH 23	Psychiatric Nursing Update	1 credit
VALH 24	Medical Lab Technician Certification Review	1.5 credits
VALH 27	Medical Spanish	1 credit
VCOS 1	Nail Technology Training	21 credits
VCRF 1	Beginning Stained Glass Window	1.5 credits
VCRF 3	Advanced Stained Glass Window Design	1.5 credits
VCRF 10	Beginning Calligraphy	1 credit
VCRF 11	Advanced Calligraphy	1 credit
VPET 10	Introduction to Horse Management	2 credits
VPET 11	Horse Judging and Selection	2 credits
VPET 12	Horse Health and Disease	2 credits
VPET 13	Horse Nutrition	2 credits
VPET 14	Horse Breeding and Genetics	2 credits
VPET 15	Horse Marketing	2 credits
VPTO 1	Introduction to Photography	1.5 credits
VVOC 1	Real Estate Transactions & Math	3 credits
VVOC 2	Current Topics in Real Estate	1 credit
VVOC 5	Introduction to Travel Agency	3 credits
VVOC 6	Advanced Travel Agent Training	3 credits
VVOC 7	Airline Computer Training	1.5 credits
VVOC 10	Private Pilot Ground School	3 credits
VVOC 15	Woodworking and Furniture Making	2 credits
VVOC 16	Advanced Woodworking	3 credits
VVOC 20	Introduction to Fasteners	.5 credit
VVOC 21	Intermediate Fasteners & Design	.5 credit

## **FACILITIES AND**



## **EXTENSION LOCATIONS**

## On the Grayslake Campus

The College of Lake County opened its doors in September, 1969. The buildings which now make up the North Campus were, at that time, the 226-acre main campus. The main building, which was completed in 1974, is comprised of the A. Harold Anderson Campus Wing and the Paul W. Brandel Campus Wing. The Learning Resource Center was added to it in 1980. The College added a Physical Education Building in 1982 and the Science/Student Services Module in 1987. This growth reflects the College's commitment to excellence as well as the support it has received from the people of Lake County.

The **Learning Resource Center** is the cultural center of the College. Named after the first chairperson of the Communication, Arts, Humanities and Fine Arts Division, the **John C. Murphy Memorial Library** honors one of CLC's earliest educators and has a collection of 693 periodicals and over 106,715 books. Its **Audio-Visual Center** provides students with access to over 7,158 pieces of media. The **Learning Assistance Center** provides tutoring and testing to support classroom instruction. The Learning Assistance Center also administers placement exams, GED exams, and is an ACT center. In the **Robert T. Wright Community Gallery of Art**, patrons enjoy art exhibits and other events. The College of Lake County Foundation sponsors many of the gallery activities. The **Esper A. Peterson Reading Room** provides an open, well-lighted space overlooking Willow Lake for students to study, read and have quiet conversations.

The **Physical Education Building** houses physical education, intramural, and inter-collegiate athletic activities. At regularly scheduled times when the gym is not being used for other purposes, currently enrolled CLC students may use the field house and the weight room for recreation and exercise. Outside the Physical Education Building, the College's other athletic facilities include athletic fields, tennis courts, and a physical fitness trail which encircles the campus.

**Student Activity Areas** are designed to meet the needs and interests of students beyond the formal classroom setting. The Recreation Room, located in the lower level in the main building, allows students to enjoy billiards, table tennis, foosball, and electronic games. Others may enjoy refreshments and occasional entertainment in Lancers, also in the lower level. The College Bookstore is here, too.

An 80,000 square foot **Science/Student Services** addition to the main campus opened in the spring of 1987. This module houses facilities for biology, chemistry, and medical records technology classrooms, as well as laboratories and preparation areas, student service offices, a conference center, and a four hundred-seat auditorium. A counseling center has been added in this module as well as office space for the student newspaper and radio station and the student government offices.

Since the College of Lake County is a community college designed to be a commuter institution, **housing facilities are not available.**

The **Multi-Use Instructional Building** was opened in the fall of 1996. It includes a 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** opened during the spring 1997 semester. It includes three theatres: a six hundred-seat Mainstage Theatre (used for musicals and other major productions), a two hundred-fifty seat Studio Theatre (used for most other productions), and a smaller Experimental Theatre (used for student productions and classes). The facility also houses practice areas for dance, choir, and instrumental activities, along with 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.

#### Learning Resource Center

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.

#### Southlake Educational Center

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.

## Facilities and Extension Locations

### 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.-1:00 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 operates like a buffet; 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 transfer and career courses leading to the acquisition of A.A., A.S and A.A.S. degrees, adult education, continuing education, community service activities, and career development courses.

The Lakeshore Campus also provides a broad range of support services which include registration, payment of tuition and fees, basic skills testing, academic advising, academic support through the Learning Assistance Center, a bookstore, child care, financial aid and counseling.

The Learning Resource Center at the Lakeshore Campus is located in the North Building in rooms 203 and 204. Academic support services are provided to students through testing, math modular instruction, and tutoring. A small computer lab gives students and all Lake County residents free internet access. The following tests are administered in the LRC: GED tests, Academic Proficiency Tests (APT), Chemistry and Math Placement tests, Telecourse tests, Make-up tests and Correspondence tests.

Students wishing to improve their math skills may enroll in the math modules. These are one credit, non-transferable courses that allow students to work at their own pace. Free one-on-one tutoring is available on a drop-in basis to students needing additional help with their courses. For more information call (847) 543-2120 or (847) 543-2121.

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) 623-8686.

### Parking

There are one hundred-fifty 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 Safety 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.

### 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 Educational Center

The Southlake Educational Center (SLC), is located at 1120 South Milwaukee Avenue in Vernon Hills, a quarter mile north of the intersection of Route 21 and Route 45 and two miles south of Route 60. The Vernon Hills facility serves the southeast and southwest portion of Lake County. The Center houses two computer laboratories, a distance learning room, four computer labs and eight general classrooms, as well as administrative offices.

The Center offers a wide range of courses and services including registration, advising, basic skills testing, and career counseling. Using the latest computer equipment, a variety of credit and non-credit computer courses are available at SLC to improve either workplace or personal computer skills. Senior citizens pursuing life-long learning opportunities can enroll in mini-courses through the Discovery Program, and weeklong in-depth study experiences through the Quest (formerly Elder College) program. District residents are able to work towards degree by taking courses at Southlake Educational Center. For more information, call (847) 478-1833.

Textbooks for students enrolled in SLC classes may be purchased between 8:30 a.m.-1:30 p.m. and 3:30-7:30 p.m. at Southlake Educational Center during the first two weeks of classes.

Courses leading to a degree or certificate in Computer Information Systems, Health Information Technology and Multimedia Communications are offered at SLC.

## Great Lakes Center

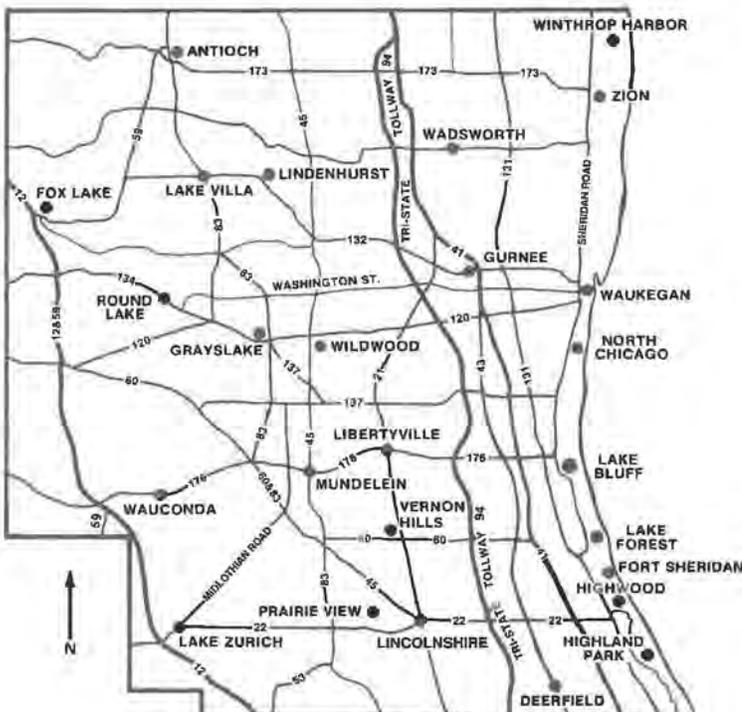
The College of Lake County maintains an office at Great Lakes Naval Base to give servicemembers, their families, and members of the surrounding community an opportunity to work towards an associate degree. Late afternoon and evening courses are offered in both the traditional sixteen-week and a condensed 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. Non-military students 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 7, 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) 543-2971.

## Additional Extension Sites

The college also frequently offers classes at the following locations:

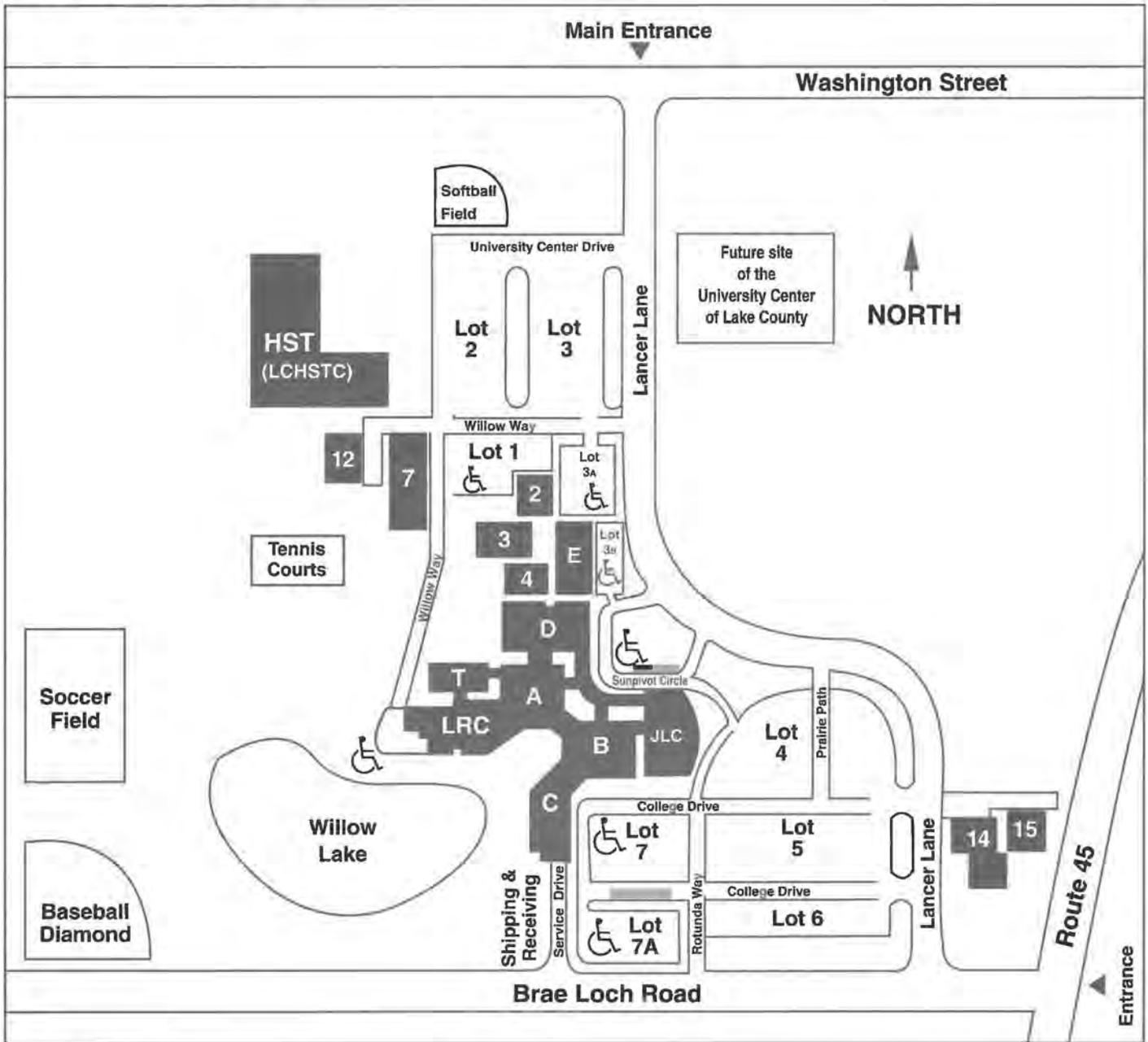
Abbott Park	Abbott Park, IL
Adlai Stevenson High School	Lincolnshire, IL
Antioch Community High School	Antioch, IL
Adult Learning and Technology Center	Waukegan, IL
Ballyunion Golf Learning Center	Long Grove, IL
Deerfield High School	Deerfield, IL
Deerpath Golf School	Lake Forest, IL
Grayslake High School	Grayslake, IL
Great Lakes Naval Base	Great Lakes, IL
Highland Park Golf Course	Highland Park, IL
Highland Park High School	Highland Park, IL
Lake County High School	
Technology Campus	Grayslake, IL
Lake Zurich High School	Lake Zurich, IL
North Chicago High School	North Chicago, IL
Round Lake Area Library	Round Lake, IL
Round Lake High School	Round Lake, IL
S & B Upholstery	Ingleside, IL
Southlake Educational Center	Vernon Hills, IL
Windrose Farm	Pleasant Prairie, WI
Vernon Area Library	Lincolnshire, IL
Wauconda High School	Wauconda, IL
Waukegan High School	Waukegan, IL
Zion Benton High School	Zion, IL

## Map of CLC District



For a list of the extension sites used for a specific semester, consult the class schedule for that semester.

# CLC Campus Map



**LEGEND:**

**BUILDINGS**

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>A, B, &amp; C - Administrative Offices &amp; classrooms</li> <li>D - Administrative Offices, classrooms &amp; Child Care Center</li> <li>E - Job Center of Lake County (Formerly Illinois Employment &amp; Training Center)</li> <li>JLC - James Lumber Center for the Performing Arts Theaters, classrooms and Box office</li> <li>LRC - Learning Resource Center</li> <li>T - Technology Building (scheduled to open spring 2005)</li> <li>2/3 - General Classrooms</li> <li>4 - Adult &amp; Continuing Education</li> </ul> | <ul style="list-style-type: none"> <li>7 - Physical Education Center</li> <li>12 - Automotive Technology</li> <li>14 - Ornamental Horticulture</li> <li>HST - Lake County High Schools Technology Campus (Automated Industrial Center)</li> </ul> |
|---|---|

**PARKING LOTS**

- Student & Visitor - Lots 2, 3, 4, 5, & 6
- Staff - Lots 1, 7, 7a & 3b
- Job Center of Lake County - Lot 3b
- Visitor - Circle Drive & Lot 7

## Full Time Faculty, Professional, Specialist and Administrative Staff

### **ABBATE, DEE**

Director, Southlake Educational Center  
B.A., Northeastern Illinois University  
B.A., Columbia College Missouri  
M.S., National College of Education  
Ed.D., Northern Illinois University

### **ADAMS-SOLLER, NEDRA**

Communication  
B.S., Eastern Michigan University  
M.A., Eastern Michigan University

### **AGUINALDO, TERESA G.**

English  
B.A., University of Missouri-Columbia  
M.A., University of Missouri-Columbia

### **ALDERSON, LESLIE**

RAC Lab Assistant  
RAC Certificate, College of Lake County

### **ALLEN, ANN McKAIN**

Graphic Designer  
B.A., Emporia State University

### **ALPERT, VALERIE**

Dance  
B.F.A., University of Illinois  
M.F.A., Ohio State University

### **ANASTASIO, DENISE J.**

Health Information Technology  
B.A., University of Wisconsin-Parkside  
R.H.I.A., Seattle University  
M.P.A., University of Wisconsin- Parkside  
Ph.D., Loyola University

### **ANDERSEN, CINDY**

Child Care Class Facilitator  
A.A.S., College of Lake County

### **ANDERSON, ELLEN**

Health Information Technology  
B.S., University of Illinois

### **ARMOUR, RAYNE S.**

Librarian  
B.A., Mount Mary College  
M.A., University of Kentucky

### **ARNOLD, THOMAS**

Criminal Justice  
B.A., Western Illinois University  
M.A., Western Illinois University  
Ed.D., Northern Illinois University

### **ARROYO, JUAN**

Admission & Records Specialist  
A.S., College of Lake County  
B.A., Southern Illinois University

### **BAKKER, CONNIE**

Dean, Learning Resources Center  
B.A., University of Wisconsin  
M.A., University of Wisconsin

### **BARRIENTOS, LAMONT**

Financial Aid Coordinator  
B.S., University of Nebraska

### **BECKER, CAROL**

Coordinator, Community Development  
B.A., Northeastern Illinois University

### **BECKWITH, JO**

Reference Librarian  
B.A., MacMurray College  
M.S.L.S., University of Illinois

### **BENASSI, MARIO A.**

Psychology  
B.S., University of Wisconsin-Parkside  
M.A., DePaul University  
Ph.D., DePaul University

### **BERRYMAN, TERRI**

Director, Career & Placement Services  
B.S., Western Kentucky University  
M.A., Northeast Missouri State University

### **BIGHAM, ANNETTE**

Instructional Developer  
B.A., University of Texas-El Paso  
M.A., University of Texas-El Paso  
M.A., Webster University

### **BLOCK, YVONNE**

Administrative Office Systems  
B.S., University of Wisconsin  
M.S., University of Wisconsin

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B.S., Southern Illinois University

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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 Application for Admission form.** Applicants planning to take college-level courses must demonstrate college-level proficiency in English language and math. Following admission, the Admissions and Records office will assess incoming students for English language and math proficiency. 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 application.
- **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 application are available online at [www.clcillinois.edu](http://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. **Academic Proficiency Prerequisites** in English language and math is assessed by the Admissions and Records office, and may be demonstrated in a number of ways described below. **Placement Test Prerequisites** are used in math, chemistry, computer information systems, ESL, adult basic education, and other classes. Call the Testing Center (847) 543-2076 for specific information. **Course Prerequisites** are required when the student should have specific knowledge or skills prior to enrolling, and **Course Corequisites** are required when the student should gain specific knowledge or skills at the same time.

**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 and math proficiency 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. Official transcript of high school record showing top 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), Verbal Score of 450 or above.
- e. Official transcript of General Educational Development (GED) test, Reading & Writing Skills (*Prior to January 1, 2002*): Score of 55 or above Reading & Writing Skills (*Beginning January 1, 2002*): Score of 550 or above
- f. Test of English as a Foreign Language (TOEFL), Computer-based test: Score of 195 or above, Paper-based test: Score of 525 or above
- g. Evidence of an associate or higher degree from an accredited college or university.
- h. Official U.S. transcript of 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 or higher level courses at CLC.
- i. Completion of CLC ENG 108 with a grade of A, or ENG 109 or higher level course.

### Math Proficiency

Incoming students will be assessed for math proficiency as demonstrated by meeting any one of the following:

- a. Official transcript of high school record showing top 1/3 rank in class after six semesters.
- b. CLC Academic Proficiency Test, 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. Official transcript of General Educational Development (GED) test, Mathematics: (*Prior to January 1, 2002*): Score of 55 or above; (*Beginning January 1, 2002*): Score of 550 or above
- f. Evidence of an associate or higher degree from an accredited college or university.
- g. Official U.S. transcript of college/university record listing one of the following:
  - at least 30 semester hours of credit with no grade less than C
  - or credit equivalent to MTH 101 or higher level courses at CLC
- h. Completion of CLC 4.0 credit hours in MTH 101 or MTH 114 with a C or better.



**Apply to CLC on the Web!**  
[www.clcillinois.edu/applic.htm](http://www.clcillinois.edu/applic.htm)

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 enrolling 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
  2. Antioch
  3. Grant
  4. Grayslake
  5. Highland Park-Deerfield
  6. Lake Forest
  7. Lake Zurich
  8. Libertyville
  9. Mundelein
  10. North Chicago
  11. Round Lake
  12. Vernon Hills
  13. Warren Township
  14. Wauconda
  15. Waukegan
  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 legal resident of the State of Illinois.
2. Includes 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
Activities .....	(847) 543-2055 .....	C104
Admissions and Records .....	(847) 543-2061 .....	B101a
Adult Education .....	(847) 543-2021 .....	Building 4
Advisement .....	(847) 543-2060 .....	C110
Affirmative Action .....	(847) 543-2060 .....	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 and Industry Services .....	(847) 543-2027 .....	B201
Business Division .....	(847) 543-2041 .....	A144
Career and Placement .....	(847) 543-2059 .....	E101
Career Programs .....	(847) 543-2422 .....	C206
Chargebacks and Joint Educational Agreements .....	(847) 543-2418 .....	C206
Communication Arts, Humanities & Fine Arts Division .....	(847) 543-2040 .....	B237
Continuing Education .....	(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 .....	B162
Extension Services .....	(847) 543-2653 .....	Building 4
Financial Aid .....	(847) 543-2062 .....	B114
Health Center .....	(847) 543-2064 .....	A149
International Students and International Education .....	(847) 543-2733 .....	B105
Learning Assistance Center .....	(847) 543-2072 .....	Learning Resource Center
Learning Resource Center/Murphy Library .....	(847) 543-2070 .....	Learning Resource Center
Nursing Education .....	(847) 543-2043 .....	D208
Public Relations .....	(847) 543-2094 .....	A216
Registration .....	(847) 223-1111 .....	B101
Social Science Division .....	(847) 543-2047 .....	A244
Testing Center .....	(847) 543-2076 .....	Learning Resource Center
Tuition Payment .....	(847) 543-2230 .....	A101
Veteran's Information .....	(847) 543-2063 .....	B114

### Off-Campus Centers

Lakeshore Campus .....	(847) 623-8686 .....	111 North Genesee Street, Waukegan, IL 60085
Great Lakes Center .....	(847) 688-2365 .....	Building 2, Room 2, Great Lakes, IL 60088
Southlake Educational Center .....	(847) 478-1833 .....	1120 S. Milwaukee Ave. 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 5 pm or later) cancellations will begin by 4 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!**

WGN .....	720 AM	CBS-TV .....	Channel 2
WBBM .....	780 AM	NBC-TV .....	Channel 5
WLIP .....	1050 AM	ABC-TV .....	Channel 7
WKRS .....	1220 AM	WGN-TV .....	Channel 9
ZONE .....	94 FM	WFLD-TV .....	Channel 32
WIIL .....	95.1 FM	CLTV-TV .....	Channel 39
WXLC .....	102.3 FM		
WEXT .....	104.7 FM		
WZSR .....	105.5 FM		



**REQUIRED INFORMATION (Please check only one box on this page)****20. CHOOSE JUST ONE PROGRAM OF STUDY:****TRANSFER EDUCATION**

For students who plan to transfer to a 4-year college or university.

- Accounting (13AB-ACC)
- Anthropology (13AB-ANT)
- Art (13AB-ART)
- Biological Sciences (11AB-BIO)
- Business Administration (13AB-BUS)
- Chemistry (11AB-CHM)
- Computer Science (11AB-MCS)
- Communications (13AB-CMM) Formerly Speech
- Criminal Justice (13AB-CRJ)
- Early Childhood Education (13AB-ECE)
- 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)
- Geology (11AB-GEO)
- History (13AB-HST)
- Humanities (13AB-HUM)
- Mathematics (11AB-MTH)
- Music (13AB-MUS)
- Philosophy (13AB-PHI)
- Physics (11AB-PHY)
- Political Science (13AB-PSC)
- Pre-Dentistry (11AB-DNT)
- Pre-Medicine (13AB-MED)
- Pre-Occupational Therapy (11AB-OCC)
- Pre-Pharmacy (13AB-PHR)
- Pre-Physical Therapy (11AB-PPT)
- Pre-Veterinary Medicine (13AB-VET)
- Psychology (13AB-PSY)
- Social Work (13AB-SWC)
- Sociology (13AB-SOC)
- Theatre (13AB-THE)
- Transfer courses, not for CLC degree (13XF)
- Transfer degree, undecided subject of study (13AB)

**NON-CREDIT CLASSES / PROFESSIONAL DEVELOPMENT**

For personal/career/special interest studies.

- Non-Credit Courses for Personal Interest
- Non-Credit Courses for Professional Development
- Programs to earn CEUs or CPDUs (not for credit)
- Allied Health
- Real Estate
- Basic Vocational Courses

**CAREER EDUCATION**

For students who plan to prepare for an occupation.

- Accounting (ACC)
- Administrative Office Systems (AOS)
- Architectural Technology (ARC)
- Automotive Collision Repair (ABR)
- Automotive Technology (AUT)
- Building Construction Technology (BCT)
- Business Management (BUS)
- CAD-Drafting Technology (CAD)
- Chemical Technology (CHM)
- Cisco Networking (CNA)
- Civil Construction Technology (CIV)
- Computer Information Systems (CIS)
- Computerized Numerical Control Programming (CNC)
- Criminal Justice (CRJ)
- Dental Hygiene (DHY)
- Drafting (DFT)
- Early Childhood Education (ECE)
- Electronic Information Technology (EIT)
- Electronics Engineering Technology (ELT)
- Electrical/Electronic Maintenance (ELC)
- Electrician Apprenticeship (EAP)
- Emergency Disaster Management (EDM)
- Emergency Medical Services (EMT)
- Fire Science Technology (FST)
- Food Service (FSM)
- Health Information Technology (HIT)
- Horticulture (HRT)
- Human Services (HUS)
- Industrial Maintenance and Repair (IMR)
- Library Technical Assistant (LTA)
- Machine Tool Trades (MTT)
- Mechanical Engineering Technology (MCD)
- Medical Imaging (MIM)
- Multimedia Communications (COM)
- Nursing/CNA Certified Nurse Assisting (NUR)
- Paraprofessional Education (EDU)
- Phlebotomy (MLT)
- Refrigeration & Air Conditioning (RAC)
- Surgical Technology (SRG)
- Teaching English to Speakers of Other Languages (ENG)
- Technical Communication (ENG)
- Welding (WLD)

*Note: Occupational Certificates of less than 30 semester hours may not be eligible for financial aid.*

**ADULT LITERACY PROGRAMS**

For students who plan to study basic skills, ESL or GED.

- Adult Basic Education (ABE)
- Adult Secondary Education (ASE)
- English as a Second Language (ESL)

**21. CERTIFICATION** I understand that withholding information requested on this application 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

**COLLEGE OF LAKE COUNTY**  
**19351 WEST WASHINGTON STREET**  
**GRAYSLAKE, ILLINOIS • 60030-1198**  
**(847) 543-2000**  
**[www.clcillinois.edu](http://www.clcillinois.edu)**



 *See back page for application.*