

Start. Finish. Go Forward.
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## About Harper College

A Message from the President: Kenneth L. Ender,
Ph.D

## Welcome to Harper College. We're pleased that you've chosen to start here.

When William Rainey Harper helped start the community college movement a century ago, he couldn't have dreamed of the complex challenges that higher education faces today. But like our namesake, we believe in dreaming boldly, challenging the status quo and advancing innovative solutions to help students achieve their goals in a fast-changing world.

We are engaged in a continuous two-way conversation with local businesses to make sure our programs are meeting their changing workforce needs, and we're collaborating more closely with our local high schools to ensure our curriculums align and that students come to Harper well-prepared. Because of these partnerships, Harper College is well-positioned to train our students for new economy jobs, prepare them for transfer to four-year universities and deliver the credentials needed for promotions. Through the hard work of our faculty and staff and the support of so many others, including our extraordinary alumni, we're preparing students for great careers and great futures.

As a college accessible to all, we know we can no longer afford to measure ourselves simply by how many students choose to enroll at Harper College. It's about how many finish here, and we are working diligently every day toward that goal of student success.

## Academic Calendar

## College Calendar

Harper College follows a semester calendar that includes 16week fall and spring semesters and 5 -week and 8 -week summer sessions. Not all classes follow a 16 -week or 8 -week calendar; 4-week, 6-week, 8-week and 12-week options are a few of the choices that may be available during the fall, spring and summer sessions. Classes are generally scheduled Monday through Friday from 7 a.m. until 10 p.m., Saturday from 8 a.m. until 6 p.m. and Sunday from 1 p.m. to 6 p.m. during the spring and fall semesters. The College is closed Saturday and Sunday during the summer session.

## Harper College Academic Calendar 2013-14

First Semester - Fall 2013 (August 26 to December 20, 2013)

- Full-time Faculty Report: August 20
- Semester Begins*: August 26
- Labor Day (College Closed): September 2
- Thanksgiving Holiday (College Closed):November 27 December 1
- Final Exams: December 16-20

Second Semester - Spring 2014 (January 13 to May 16, 2014)

- Full-time Faculty Report January 8
- Semester Begins*: January 13
- Martin Luther King Day (College Closed): January 20
- Lincoln's Birthday Observed (College Closed): February 12
- Spring Break: March 24-30
- Classes Resume: March 31
- Reading Day: April 18
- Final Exams: May 12-16
- Graduation:May TBA

Summer Session 2014 (May 19 to August 8, 2014)

- Semester Begins*: May 19
- Memorial Day (College Closed): May 26
- Independence Day (College Closed): July 4


## Harper College Academic Calendar 2014-15

First Semester - Fall 2014 (August 25 to December 19, 2014)

- Full-time Faculty Report: August 19
- Semester Begins*: August 25
- Labor Day (College Closed): September 1
- Thanksgiving Holiday (College Closed): November 26-30
- Final Exams: December 15-19

Second Semester - Spring 2015 (January 12 to May 15, 2015)

- Full-time Faculty Report: January 7
- Semester Begins*: January 12
- Martin Luther King Day (College Closed): January 19
- Lincoln's Birthday Observed (College Closed): February 12
- Spring Break: March 23-29
- Classes Resume: March 30
- Reading Day: April 3
- Final Exams: May 11-15
- Graduation: May TBA

Summer Session 2015 (May 18 to August 7, 2015)

- Semester Begins*: May 18
- Memorial Day (College Closed): May 25
- Independence Day (College Closed): July 4


## Harper College Academic Calendar 2015-16

## First Semester - Fall 2015 (August 24 to December 18, 2015

- Full-time Faculty Report: August 18
- Semester Begins*: August 24
- Labor Day (College Closed): September 7
- Thanksgiving Holiday (College Closed): November 25-29
- Final Exams: December 14-18

Second Semester - Spring 2016 (January 19 to May 20, 2016)

- Full-time Faculty Report: January 13
- Martin Luther King Day (College Closed): January 18
- Semester Begins*: January 19
- Lincoln's Birthday Observed (College Closed): February 12
- Spring Break: March 21 - March 27
- Classes Resume: March 28
- Final Exams: May 16 - May 20
- Graduation: May TBD

Summer 2016 (May 23 to August 12, 2016)

- Semester Begins*: May 23
- Memorial Day (College Closed): May 30
- Independence Day (College Closed): July 4
* Many course offerings begin this week. However, there are many other course offerings starting at a later date. For more information, refer to the class schedule at www.harpercollege.edu


## College Office Hours

Typical office hours are Monday through Thursday from 8 a.m. to 7 p.m., Friday from 8 a.m. to 4:30 p.m. For specific office hours, please check www.harpercollege.edu.

## Accreditation

## The Higher Learning Commission of the North Central Association of Colleges and Secondary Schools (NCA)

230 South LaSalle St., Suite 7-500
Chicago, IL 60604
800.621.7440

All courses and educational programs, including counseling services and distance learning programs, are fully accredited by The Higher Learning Commission of the North Central Association of Colleges and Secondary Schools (NCA) 30 North LaSalle, Suite 2400 Chicago, IL 60602-2502 312.263.0456 800.621.7440

- The Harper College business-related programs of Accounting, Computer Information Systems, Financial Services, Management, Marketing, Mass Communication and Supply Chain Management are accredited by the Association of Collegiate Business Schools and Programs.
- The Harper College Music Department is accredited as a Community/Junior College Member of the National Association of Schools of Music.
- The Harper College Paralegal Studies Program is approved by the American Bar Association.
- The Harper College Real Estate Program is licensed by the State of Illinois Department of Financial and Professional Regulations as a Real Estate Pre-License School (\#110000046), a Licensed Appraiser-Education Provider (\#155000165), a Licensed Home InspectorEducation Provider (\#052000106), a Continuing Education School for Real Estate Sales and Brokerage, a Continuing Education School for Real Estate Sales and Brokerage (license 162.0000220).
- The Harper College Child Learning Center is accredited by the National Association for the Education of Young Children (NAEYC).
- The Harper College Nursing Program is accredited by the: Accreditation Commission for Education in Nursing, Inc. (ACEN), 3343 Peachtree Road NE, Suite 500, Atlanta, GA 30326. The Harper College Certified Nursing Assistant Program is approved by the: Illinois Department of Public Health Training and Technical Directions Unit LTC Field Operations 525 W. Jefferson, 4th Floor, Springfield, IL 62761 217.785.5569
- The Harper College English as a Second Language Intensive English Program is accredited by the Commission on English Language Program Accreditation (CEA).
- The Harper College Diagnostic Medical Sonography Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org ) upon the recommendation of the Joint Review Committee on Diagnostic Medical Sonography. Commission on Accreditation of Allied Health Education Programs 1361 Park St. Clearwater, FL 33756772.210 .2350 www.caahep.org
- The Harper College Diagnostic Cardiac Sonography Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org ) upon the recommendation of the Joint Review Committee on Diagnostic Medical Sonography. Commission on Accreditation of Allied Health Education Programs 1361 Park St., Clearwater, FL 33756 772.210.2350 www.caahep.org
- The Harper College Dental Hygiene Program is accredited by the: American Dental Association (ADA) Commission on Dental Accreditation (CODA) 211 East Chicago Avenue, Chicago, IL 60611-2678 312.440.2500
- The Harper College Dietetic Technician Program is accredited by the: Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995 312.899.0040
- The Harper College Fire Science Technology Program is accredited with course approval by the Office of the Illinois State Fire Marshall, Division of Personnel Standards and Education 1035 Stevenson Drive, Springfield, IL 62703-4259 217.782.4542
- The Harper College Interior Design department is accredited by The National Kitchen and Bath Association 687 Willow Grove St. Hackettstown, NJ 07840 800.843.6522
- The Harper College Medical Assisting Certificate Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org ) upon the recommendation of the Medical Assisting Education Review Board (MAERB). The Commission on Accreditation of Allied Health Education Programs 1361 Park St., Clearwater, FL 33756727.210 .2350 www.caahep.org
- The Harper College Radiologic Technology Program is accredited by the: Joint Review Committee on Education in Radiologic Technology 20 N. Wacker Drive, Suite 2850 Chicago, IL 60606-3182 312.704.5300
- Illinois Department of Financial and Professional Regulations:
- Registered Public Accounting Continuing Professional Education sponsor
- Licensed Real Estate Pre-license School


## Art Collection

The original concept for the Harper College campus included public exhibition of works of art. The Educational Foundation has acquired a permanent collection consisting of over 360 paintings, prints, drawings, photographs and pieces of sculpture. Throughout Harper's history, the Foundation has actively pursued acquisition of quality works of art in order to create a vibrant educational environment for students. Students, faculty and staff can explore the wide variety of art represented in the Collection while enjoying a more aesthetic environment for learning. The Collection is also an invaluable resource for the community that Harper serves, with interesting works that provide community residents with a source of inspiration. In the future, the Foundation will continue to collect works reflecting a variety of aesthetic expressions.

The Harper College Educational Foundation Art Collection is valued at more than $\$ 2.2$ million. The collection of paintings, prints, drawings and sculptures includes works by a number of influential artists such as Picasso, Sol Lewitt, Romare Bearden and Alice Neel. Harper College is also fortunate to have works by a number of Chicago-area artists who have achieved international acclaim, including Roger Brown and David Sharpe.

## Associate Degrees

Harper College offers eight associate degrees, six of which are designed for students who will transfer to a four-year college or university to complete a bachelor's degree. The six are the Associate in Arts (AA), the Associate in Science (AS), the Associate in Arts in Teaching - Secondary Mathematics (AATM), the Associate in Fine Arts-Art (AFA), the Associate in Fine ArtsMusic (AFA) and the Associate in Engineering Science (AES) degrees, which comprise the first two years of study toward degrees in a broad range of arts-related or science-related disciplines.

The seventh, the Associate in General Studies (AGS) degree program, is designed to meet three specific intents-as a Liberal Studies program, as an individualized program meeting needs not met by other degree programs, or as a capstone for occupational certificate programs. Students can use credits earned toward the AGS degree to transfer, but options are limited to institutions that have a formal articulation agreement with Harper College or
with institutions that choose to evaluate classes on a course-bycourse basis. Because of the individualized nature of this degree transferrability, may be limited. Students interested in this option should investigate its appropriateness to their goals by speaking with a counselor.

The eighth, the Associate in Applied Science (AAS) degree, is awarded upon completion of a two-year career program and is designed to prepare the graduate for immediate entry into a specific career field.

## Campus Facilities

William Rainey Harper College supports a wide range of programs with a 200-acre campus in Palatine and two satellite facilities, the Harper Professional Center in Schaumburg and the Northeast Center in Prospect Heights. Our main campus is comprised of 22 buildings and offers state-of-the art science and technology laboratories and classrooms, a comprehensive library and learning resources center, computer labs, lecture halls, theaters, a Wellness and Sports Center and the Wojcik Convention Center. WiFi access is provided across campus. The College also offers electric vehicle charging stations in Parking Lot 14, near the Wojcik Conference Center.

Every ten years the College completes a Master Plan, an exhaustive analysis to determine the physical needs of the campus. The recently completed Campus Master Plan (2010) revealed the need to create a more effective and welcoming campus and provide space for the current and future needs of academic programming and student services. The College is currently undertaking extensive renovation and construction that addresses the recommendations of the Master Plan.

The first part of the Master Plan was implemented in 2012 with the reconstruction of the north parking lots and the reconfiguration of the entrances at Euclid and Roselle Roads to provide a safer and more sustainable campus. The design incorporated the use of vegetated swales to help channel and filter storm water, native plantings and returned nearly an acre of land to green space.

A main goal of the plan is to provide enhanced facilities to accommodate growing demand for career training programs that lead directly to jobs such as manufacturing, welding, architectural technology, heating, ventilation and air conditioning (HVAC), maintenance technology, law enforcement and fire science. Some of the programs have experienced double-digit enrollment increases as adults go back to school to train for new careers during the economic downturn. In 2013, the College began renovating two 1970s era buildings (Buildings $G$ and $H$ ) that will become the new Engineering and Technology Center. The building, funded by a combination of capital referendum dollars matched by a grant from the State of Illinois, will also house Harper's innovative new Advanced Manufacturing program that was launched in 2012.

Building $D$ is also undergoing an extensive renovation. Building D was one of the original six buildings opened in 1969 and has remained virtually unchanged. The building is being designed to meet LEED Silver standards while providing enhanced accessibility and state-of-the-art classrooms. Concurrently under consideration is a parking structure for the east side of campus to provide more efficient parking located closer to the renovated buildings.

The Master Plan also identified a new area which centralizes all student services in one location on campus, as one of the top priorities for the campus. The new One Stop Admission and Campus/Student Center is currently in the planning stages and is expected to be completed by 2017. It will provide a natural
meeting place for students and faculty and will include a lounge, food service facilities and other amenities.

The Harper campus is a vibrant and vital cornerstone of the community. Revitalizing campus buildings will enable the College to meet the projected needs of the students and the community through 2020

## Campus Map

Harper College is located at 1200 West Algonquin Road, at the intersection of Algonquin and Roselle Roads in Palatine. View the Campus Map at harpercollege.edu.

To allow for better and safer access to campus, the College is reconfiguring entrances and parking. Please visit our campus construction page for updated directions.

## Communities Served

- Arlington Heights
- Barrington
- Barrington Hills
- Inverness
- Buffalo Grove*
- Carpentersville*
- Deer Park*
- Des Plaines*
- Elk Grove Village
- Fox River Grove*
- Hanover Park*
- Hoffman Estates**
- Lake Barrington
- Mount Prospect
- North Barrington
- Palatine
- Prospect Heights
- Rolling Meadows
- Roselle*
- Schaumburg
- South Barrington
- Tower Lakes
- Wheeling
* Portions of these communities are included in the district.
** The area bounded by the Northwest Tollway on the south and Higgins Road on the north (but west of Illinois Route 59) is not in the Harper College district. This includes the Prairie Stone Office Park.


## Emergency Preparedness

Harper College has plans, procedures and resources in place to help detect, prevent and/or respond to potentially threatening situations that may occur. Your understanding of these tools promotes your personal safety and greatly contributes to our commitment to protect our community from danger. Harper's Emergency Procedures and an overview of the Campus Emergency Operations Plan are accessible on the College's web site.

The ability to communicate during emergency situations is critical. We encourage all members of the Harper community to enroll in the Emergency Alert System on the College's web
site. At no cost from Harper, registered participants will receive critical information via text message, voice message and/or email regarding emergencies that have campus-wide impact or concern. For more detailed registration information regarding the Emergency Alert System, please contact Student Service Desk at 847.925.6866.

## Equal Opportunity Statement

Harper College does not discriminate on the basis of race, color, religion, sex, national origin, ancestry, age, marital status, sexual orientation, disability or unfavorable discharge from military service. This policy governs the recruitment and admission of students, the recruitment and employment of faculty and staff and the operation of any of the College's programs and activities as specified by federal laws and regulations. It is also the policy of Harper College that no student or employee shall be subjected to sexual harassment, which is regarded as a form of discrimination. Statutory references that support this practice include, but are not limited to, the following:

- The Americans With Disabilities Act (ADA)
- The Illinois Human Rights Act (IHRA)
- Title VII of the Civil Rights Act
- The Vietnam Era Veterans and Veterans Act
- The Cook County Human Rights Ordinance
- The Family Medical Leave Act (FMLA)
- Title VI and Title IX of the Educational Amendments Act
- The Family Education Rights Privacy Act (FERPA)
- The Prevailing Wage Act
- The Freedom of Information Act (FOIA)
- The Gift Ban Act
- The Open Meetings Act
- The Investment of Public Funds Act
- The Tort Immunity Act
- The Health Insurance Portability and Accountability Act (HIPAA).

Inquiries regarding Affirmative Action should be directed to the Chief Human Resource Officer. Inquiries regarding College compliance with Section 504 of the 1973 Rehabilitation Act and the Americans with Disabilities Act should be directed to the College Compliance Officer for ADA/504.

## History of Harper College

As early as 1950, discussion began about establishing a community college. An active committee was at work on the project in 1961, and a community survey was done in 1962. In 1964, an area community college committee studied the feasibility of establishing a community college. The study committee's report concluded with the recommendation that "the citizens of the two high school districts...take appropriate steps to bring the voters of the four townships the proposal that a community college be established."

Early in 1966, the present 200-acre campus site in Palatine was selected, and the College was named William Rainey Harper College, in honor of the first President of the University of Chicago and the originator of the community college concept. In the spring, district voters approved a bond referendum by a four-to-one margin.

In 1967, Harper's first faculty members were hired, and classes for 1,725 students were begun in temporary facilities in September. In the same year, the College broke ground for the first six buildings on campus property.

The William Rainey Harper Educational Foundation was incorporated in 1973 to broaden and enrich the College program through support of such projects as scholarships and special project initiatives funded by private donations to the College.

In September 1975, a successful funding referendum was held that allowed the College to proceed with completion of the Palatine campus. Buildings G and H , housing vocational technology shops and laboratories, were completed in 1977. The Board of Trustees named an interim successor after the founding College President resigned. Harper's second President assumed the position the following year.

In 1978, the College began a major effort to develop a new master plan in concert with a comprehensive self-study effort. A referendum to increase operating revenue failed to gain voter approval that year. This led to major budget cuts in an effort to match expenditures with income.

By 1980, the campus had increased to 15 buildings with the opening of the physical education, athletics, and recreation facility (Building $M$ ) and business, social science, and vocational education housed in Buildings I and J.

In 1982, the College established a CAD/CAM training center in cooperation with high technology firms in the area. The center was designed to provide instruction and resource materials relating to computer-aided design and manufacturing.

In February 1985, district residents approved a tax rate increase for operation of the College. This was the first increase in tax support for the educational programs, services, and operating expenses of Harper College since the College was established.

In 1988, the College hired its third President after the retirement of the second President. The College began an extensive study in 1990 which led to the vision statement "Our Preferred Future." More than 1,000 College personnel and community residents worked together to develop this document to serve as a Harper College planning guide until the year 2000. In response to an emerging industry need, the Corporate Services department, now called Harper College for Businesses, was established in 1991 as the College's office of first contact representing all programs of interest to businesses and industry, including credit classes, continuing education, and customized training.

In 1992, a new Information Systems Division was formed. Harper developed a new technology plan in 1994, following two years of extensive participation and input by administrators, faculty, and staff. In 1993, the College opened Building S to house the Publications and Communication Services department. In spring 1994, the Liberal Arts building was opened. Building L included the Liberal Arts Division office, classrooms, faculty offices, and the College Bookstore. A studio (Black Box) theater and threedimensional art studios occupy the first floor of the facility. The two buildings were part of a building phase that also included renovations to Building F which houses the Learning Resources Center and the Academic Enrichment and Language Studies Division.

In 1994, the College purchased the Northeast Center (NEC). The Board of Trustees approved the first and second phases of the Technology Plan in 1995 and 1996. The campus computer network was completed in 1996, providing links between offices and classrooms and as a resource to position Harper for higher education in the current century.

In 1997, Harper College received a 10-year re-accreditation from the The Higher Learning CommissionNorth Central Association's Commission on Higher Education.

In 1998, the fourth President was hired. The College implemented a new shared governance structure and published its first
comprehensive strategic long range plan (SLRP). Groundbreaking for the new Performing Arts Center (PAC) and the Wojcik Conference Center was held on May 18, 2000. The new buildings were partially funded by the Illinois Capital Development Board. In 2002, the conference center opened and was named the Wojcik Conference Center in recognition of a $\$ 1.1$ million member initiative grant given to Harper by Illinois State Representative Kay Wojcik. At a special Board meeting on August 16, 2000, the Trustees were presented with a comprehensive long-range Campus Master Plan. The plan was intended to guide the College into the future. On November 7, 2000, the Harper College district residents passed an $\$ 88.8$ million referendum to build a new facility to house Harper's growing science, technology, and health care programs. Construction of Avanté began in fall 2001.

On August 29, 2001, Harper College purchased a new facility in Schaumburg for the Technical Education and Consulting at Harper (TECH) program. The facility, now called the Harper Professional Center (HPC), is the site for the new Fast Track degree option.

In 2004, Harper College served a total of 37,338 credit and noncredit students during the summer, fall, and spring terms, making Harper one of the largest community colleges in the country. In 2004, Harper College opened Avanté, Center for Science, Health Careers, and Emerging Technologies. In 2005, Avanté was selected as a Merit Award finalist by the Chicago Building Congress (CBC). The CBC praised Avanté for its distinctive design and outstanding construction, and its positive impact on the surrounding community. In 2006, Harper College received the National Science Foundation Undergraduate Research grant.

In 2009, Dr. Kenneth Ender became Harper College's fifth president.

## Mission, Philosophy, Core Values

## Mission

William Rainey Harper College is a comprehensive community college dedicated to providing excellent education at an affordable cost, promoting personal growth, enriching the local community and meeting the challenges of a global society. The specific purposes of the College are:

- To provide the first two years of baccalaureate education in the liberal and fine arts, the natural and social sciences and pre-professional curricula designed to prepare students to transfer to four-year colleges and universities;
- To provide educational opportunities that enable students to acquire the knowledge and skills necessary to enter a specific career;
- To provide continuing educational opportunities for professional job training, retraining and upgrading of skills and for personal enrichment and wellness;
- To provide developmental instruction for underprepared students and educational opportunities for those who wish to improve their academic abilities and skills;
- To provide co-curricular opportunities that enhance the learning environment and develop the whole person. Essential to achieving these purposes are all of the College's resources, support programs and services.


## Philosophy

William Rainey Harper College is an institution of higher learning which believes that student success is achieved through academic excellence. In order to help prepare students for the challenges of life and work, the College offers an extensive curriculum taught by dedicated faculty and supported by qualified
staff committed to teaching and learning. The College also recognizes the importance of the community it serves and enriches the cultural and intellectual life as well as the economic development of the Harper district. Finally, the College believes that the education of students must occur in an ethical climate that values diversity and promotes respect for all people.

## Core Values

Consistent with its philosophy, mission and vision, the employees and public servants of Harper College have chosen values to work by. These values are as follows:

INTEGRITY
RESPECT
EXCELLENCE
COLLABORATION
All of our values are the basis for the ongoing achievement of Harper's mission and vision. These values are intended for use in making decisions and performing in ways that benefit all of our constituencies.

## Administration

## Executive Council

## Kenneth Ender

President
Ronald Ally
Executive Vice President of Finance and Administrative Services

## Sheila Quirk-Bailey

Chief of Staff and Executive Director of Planning and Institutional Effectiveness

## Mary Knight

Chief Advancement Officer
Phillip Burdick
Chief Communications Officer
Maria Coons
Senior Executive to the President and Executive Director of Workforce and Strategic Alliance

Judith Marwick
Provost

## Administration

Victoria Atkinson
Director of New Student Programs and Retention
Kenya Ayers
Dean of Academic Enrichment and Engagement
Michael Babb
Director of Enterprise Systems
Michael Barzacchini
Director of Marketing Services
James Batson
Director of Technical Services
Patrick Bauer
Chief Information Officer


## Bret Bonnstetter

## Kathleen Canfield

Director of Career Center and Rita and John Canning
Women's Program
Bridget Cahill
Director of Health Services
Susan Contarino
Director of Client Services

## Thomas Crylen

Julie D'Agostino
Director of Nursing
Douglas Easterling
Director of Institutional Research

## Julie Ellefson-Kuehn

Matthew Ensenberger
Director of Center for Innovative Instruction

Director, Disability Services and 504/ADA Coordinator

## Njambi Kamoche

rnie Kimlin
Student Activities
Joan Kindle
Associate Provost
Brian Knetl
Dean of Liberal Arts
Ashley Knight
Dean of Student Affairs
Darryl Knight
aura LaBauve-Maher
Associate Dean of Multicultural Learning
Laura McGee
Director of Student Financial Assistance
Maria Moten
Assistant Provost/Dean of Enrollment Services
Mark Mrozinski
Dean of Continuing Education and Business Outreach/ Assistant to the President for Special Projects

Sheryl Otto
Assistant Provost/Dean of Student Development
Robert Parzy
Director of Student Recruitment and Outreach
Stephen Petersen

Michelé Robinson
Dean of Business and Social Science

## Eric Rosenthal

Director of Academic Advising and Counseling/Transfer Coordinator

## Darlene Schlenbecker

Director of Institutional Effectiveness/Outcomes Assessment

## Roger Spayer

Chief Human Resources Officer

## Douglas Spiwak

Director of Athletics and Fitness

## Darice Trout

Assistant Dean of Center for Adjunct Faculty Engagement/ Director of Adult Education

Vacant
Interim Dean Workforce and Economic Development
vacant
Associate Dean of Center for Adjunct Faculty Engagement
vacant
Assistant Dean of Center for Adjunct Faculty Engagement
vacant
Dean of Career and Technical Programs
vacant
Dean of Health Career Programs

## Affiliations

- Academic Enrichment and Engagement Division
- Business and Social Science Division
- Career Programs Division
- Continuing Education Division
- Harper College for Businesses
- Liberal Arts
- Mathematics and Sciences Division
- Resources for Learning
- Student Development Division
- Wellness and Human Performance Division
- Third-Party Certifications


## Academic Enrichment and Engagement Division

- American Educational Research Association (AERA)
- Association of Higher Education and Disability (AHEAD)
- Children and Adults with Attention Deficit/Hyperactivity Disorder (CHADD)
- Learning Disability Association (LDA)
- Member, Adult Numeracy Network (ANN)
- Member, American Men's Studies Association (AMSA)
- Member, Association of International Student Educators (NASFA)
- Member, Emily Dickinson International Society
- Member, College Reading and Learning Association
- Member, Commission on Adult Basic Education (COABE)
- Member, Commission on English Language Program Accreditation (CEA)
- Member, Illinois Adult and Continuing Educators Association (IACEA)
- Member, Illinois Paralegal Association
- Member, Illinois Reading Council (IRC)
- Member, Illinois TESOL/Bilingual Education (ITBE)
- Member, International Association of Qualitative Inquiry (IAQI)
- Member, International Reading Association (IRA)
- Member, National Association for Developmental Education (NADE)
- Member, National Association for Multicultural Education (NAME)
- Member, National College Transition Network (NCTN)
- Member, National Council of Teachers of English (NCTE)
- Member, National Council of Teachers of Mathematics (NCTM)
- Member, NAFSA Chicago Roundtable
- Member, Network of Intensive English Programs: Illinois, Indiana and Wisconsin
- Member, Northern Illinois Consortium of Community College International Advisors (NICCCIA)
- Member, Teachers of English to Speakers of Other Languages (TESOL)
- Northeast Suburban Council for Community Services


## Third-Party Certifications

## Cisco

- Cisco Certified Network Associate (CCNA)

CompTIA Learning Alliance

- A+
- Linux+
- Network+
- Security+
- Project+

Manufacturing Skill Standards Council Certified Production
Technician in:

- Safety
- Quality Practices and Measurement
- Manufacturing Processes and Production
- Maintenance Awareness and Green Production

Microsoft Partner for Learning Solutions

- Microsoft Office Specialist (MOS)
- Microsoft Technology Associate (MTA)


## Business and Social Science Division

- The Harper College Child Learning Center is licensed by the Department of Children and Family Services.
- American Association for Paralegal Education
- Illinois Paralegal Association
- National Association of Legal Assistants
- National Federation of Paralegal Association
- Northwest Suburban Bar Association
- Registered by the State of Illinois as a Public Accountant Continuing Professional Education Sponsor (CPA classes)
- Student Chapter of Kappa Beta Delta, the national business honor society (ACBSP)
- Student Chapter of Lambda Epsilon Chi, the national paralegal honor society
- Harper College is an Illinois Gateways to Opportunity Credentials Entitled Institution


## Continuing Education Division

- American Heart Association
- American Massage Therapy Association
- Authorized Autodesk Training Center
- CompTIA Learning Alliance - Education to Career Programs (E2C)
- Microsoft Partner for Learning Solutions
- Novell Academic Partner
- Oracle Academic Initiative Workforce Development Program
- Sun Microsystems Academic Initiative
- The Community Music Center is a member of the National Guild of Community Schools of the Arts.


## Career Programs Division

- Academy of Nutrition and Dietetics (AND)
- Accreditation Council for Education in Nutrition and Dietetics (ACEND)
- Air Conditioning Contractors of America (ACCA)
- American Association of Medical Assistants (AAMA)
- American Culinary Federation (ACF)
- American Dental Association (ADA)
- American Dietetic Association (ADA)
- American Health Information Management Association (AHIMA)
- American Hotel \& Lodging Association (AH \& LA)
- American Institute of Architects (AIA)
- American Judicature Society (AJS)
- American Radio Relay League (ARRL)
- American Society for Engineering Education (ASEE)
- American Society of Interior Designers (ASID)
- American Society of Law Enforcement Trainers (ISLET)
- American Society of Radiologic Technologists (ASRT)
- American Technical Education Association
- American Welding Society
- Association of Educators in Imaging and Radiologic Science (AEIRS)
- Association of Graphic Solutions Providers, The (IPA)
- Association of Licensed Architects (ALA)
- Association of Nutrition and Foodservice Professionals (ANFP)
- AutoCAD Users Group International (AUGI)
- Building Officials and Code Administrators (BOCA)
- Building Officials and Code Administrators - International Code Council (BOCA - ICC)
- Consortium for Design and Construction Careers
- Coordinators of Community College Architecture Programs (CCCAP)
- Dietary Managers Association (DMA)
- Fabricators and Manufacturers Association, International
- Fire Department Safety Officers Association (FDSOA)
- Flexographic Technical Association (FTA)
- Graphic Communications Guild (GCG)
- Great Lakes Graphics Association
- Idealliance (IDEA)
- Illinois Academy of Criminology (IAC)
- Illinois Advisory Commission on Arson Prevention (IACAP)
- Illinois Association of Architecture Instructors
- Illinois Building Commission (IBC)
- Illinois Council of Air Conditioning \& Refrigeration Educators (ICARE)
- Illinois Drafting Educators Association (IDEA)
- Illinois Department of Finance and Professional Regulation (IDFPR)
- Illinois Department of Public Health
- Illinois Department of Public Health Food Managers Certification
- Illinois Fire Chiefs Association (IFCA)
- Illinois Green Economy Network (IGEN)
- Illinois Office of the State Fire Marshal (IL OSFM)
- Illinois Organization of Associate Degree Nursing (IOADN)
- Illinois Professional Firefighters Association (IPFA)
- Illinois Restaurant Association (IRA)
- Illinois Society of Fire Service Instructors (ISFSI)
- Illinois Society of Professional Engineers (ISPE)
- Illinois State Society of Radiologic Technology (ISSRT)
- Institute of Electrical and Electronics Engineers (IEEE)
- International Association for the Study of Organized Crime (IASOC)
- International Association of Auto Theft Detectives (IAATI)
- International Association of Chiefs of Police (IACP)
- International Association of Fire Chiefs (IAFC)
- International Association of Intelligence Analysts (IALEIA)
- International Design Educators Council
- International Digital Enterprise Alliance (IDEAlliance)
- International Food Services Executives Association (IFSEA)
- International Furnishings and Design Association (IFDA)
- International Graphic Arts Education Association (IGAEA)
- International Homicide Investigators Association (IHIA)
- International Interior Design Association (IIDA)
- Lake County Chiefs of Police Association
- Lithographers Club of Chicago
- Manufacturing Skill Standards Council
- Midwest Organization for Human Services (MWOHS)
- National Alliance on Mental Illness (NAMI)
- National Association of Remodeling Industry (NARI)
- National Association of Social Workers (NASW)
- National Fire Academy Alumni Association (NFAAA)
- National Fire Protection Association (NFPA)
- National Kitchen and Bath Association (NKBA)
- National League for Nursing (NLN)
- National League for Nursing Accrediting Commission (NLNAC), Inc.
- National Organization of Associate Degree Nursing (NOADN)
- National Restaurant Association (NRA)
- National Society of Professional Engineers (NSPE)
- Northwest Building Officials and Code Administrators (NWBOCA)
- Northwest Suburban Alliance on Domestic Violence (NWADV)
- Northwest Suburban Chiefs of Police Association
- PIA/GATF - Printing Industries of America (PIA)/Graphic Arts Technical Foundation (GATF)
- Printing Industry of Illinois and Indiana Association (PII)
- Radio Amateur Satellite Corporation (AMSAT)
- Radio Club of America (RCA)
- School Excelling Through National Skills Standards Education (SENSE)
- Society of Broadcast Engineers (SBE)
- Suburban Law Enforcement Academy (SLEA)
- United States Green Building Council (USGBC)


## Harper College for Businesses

- AchieveGlobal: Leadership, Customer Service, Sales Performance
- Certification in Production \& Inventory Management (CPIM Review)
- Certification in Purchasing Management (CPM Review)
- CISCO: Cisco Certified Network Associate (CCNA)
- Command Spanish
- Comprehensive Adult Student Assessment System (CASAS): ESL, Basic Skills
- Development Dimensions International (DDI): Leadership, Customer Service
- Integrity Systems: Integrity Selling and Integrity Service
- National Safety Council
- Resource Associate Corp.: Goal Setting, Attitude Development, Skills Improvement
- Tests of Adult Basic Education (TABE)


## Liberal Arts Division

- Accredited by the National Guild of Community Music Schools
- American Symphony Orchestra League
- Association of Departments of English (ADE)
- Association of Illinois Music Schools (AIMS)
- Community College Humanities Association (CCHA)
- Illinois Council of Orchestras
- Institutional Chapter of Phi Theta Kappa, International honor society for two-year institutions; student chapter
- Modern Language Association (MLA)
- National Association of Schools of Music (NASM)
- National Guild of Community Music Schools
- Registry of Interpreters for the Deaf (RID)


## Mathematics and Sciences Division

- American Academy of Actuaries
- American Association for the Advancement of Science (AAAS)
- American Association of Physics Teachers
- American Astronomical Society
- American Chemical Society (ACS), Division of Chemical Education
- American Geophysical Union
- American Mathematical Society (AMS)
- American Mathematics Association of Two Year Colleges (AMATYC)
- American Physical Society
- American Society for Engineering Education
- American Society of Microbiologists
- American Statistical Association
- Association for Computing Machinery (ACM)
- Association for the Education of Teachers of Science (AETS)
- Association of College and University Biology Educators
- Association of Environmental and Engineering Geologist
- Association of Mathematics Teacher Educators (AMTE)
- Astronomical Society of the Pacific
- Casualty Actuarial Society (CAS)
- Chicago Section American Association of Physics Teachers
- Committee on Chemistry of the Two Year College, Division of Chemical Education, American Chemical Society $\left(2 \mathrm{YC}_{3}\right)$
- Consortium for Computing Sciences in Colleges (CCSC)
- Consortium for Mathematics and Its Applications, The (COMAP)
- Ecological Restoration
- Ecological Society of America
- EDS PLM Solutions
- Explorers Club
- Geological Society of America
- Human Anatomy and Physiology Society
- Illinois Academy of Science
- Illinois Association of Chemistry Teachers (IACT)
- Illinois Association of Community College Biologists
- Illinois Council of Teachers of Mathematics (ICTM)
- Illinois Education Association (IEA)
- Illinois Lake Management Association
- Illinois Learning Specialist and Development Educators (ILSADE)
- Illinois Mathematics Association of Community Colleges (IMACC)
- Illinois Mathematics Teacher Educators (IMTE)
- Illinois Ornithological Society
- Illinois Science Teachers Association (ISTA)
- Illinois Section America Association of Physics Teachers (ISAAPT)
- Illinois Section of the Mathematics Association of America (ISMAA)
- Illinois Society of Professional Engineers (ISPE)
- Institute of Electrical and Electronics Engineers (IEEE)
- Institute of Mathematical Statistics
- Mathematics Association of America (MAA)
- Metropolitan Mathematics Club of Chicago (MMC), The
- National Association for Developmental Education (NADE)
- National Association for Research in Science Teaching (NARST)
- National Association of Biology Teachers
- National Council of Teachers of Mathematics (NCTM)
- National Science Teachers Association (NSTA)
- Natural Areas Association
- Natural Lands Institute
- Physics Northwest
- Project Kaleidoscope (PKAL)
- Society for College Science Teachers (SCST)
- Society of the Directed Energy Directorate
- Tex User's Group (TUG)
- The Astronomical Society of the Pacific
- Women in Mathematics Education (WME)


## Resources for Learning

- American Library Association (ALA)
- Illinois Community Colleges Online (ILCCO)
- Illinois Virtual Campus (IVC)
- Member, College and Research Libraries (ACRL)
- Member, Consortium of Academic and Research Libraries in Illinois (CARLI)
- Member, Illinois Library Association (ILA)
- Member, Illinois OCLC Users Group
- Member, Instructional Telecommunications Council (ITC)
- Member, International Writing Centers Association
- Member, Library Orientation Exchange (LOEX)

Clearinghouse for Library Instruction

- Member, Midwest Writing Centers Association
- Member, Missouri Library Network Corporation (MLNC)
- Member, National Council for Learning Resources (NCLR)
- Member, National Tutoring Association
- Member, Network of Illinois Learning Resources in Community Colleges (NILRC)
- Member, Online Computer Library Center (OCLC)
- Member, Sloan Consortium


## Student Development Division

- Association on Higher Education and Disability
- National Association of Colleges and Employers
- National Association of Student Personnel Administrators


## Wellness and Human Performance Division

- National Junior College Athletics Association (NJCAA)
- National Wellness Association
- American Red Cross
- American Sport Education Program (ASEP)
- North Central Community College Conference (N4C)
- Member, American College of Sports Medicine (ACSM)
- Member, American Alliance of Health, Physical Education, Recreation and Dance (AAHPERD)
- Member, Illinois Association of Health, Physical Education, Recreation and Dance (IAHPERD)
- Member, National Strength and Conditioning Association (NSCA)
- Member, American Council on Exercise (ACE)


## Board of Trustees

The Board of Trustees is composed of seven elected individuals who represent the voters of the district and one student representative, who has an advisory vote, elected by the student body for a one-year term.

Meetings of the Board of Trustees, which are open to the public, are held each month on the Harper Campus at Algonquin and Roselle Road in Palatine. Meeting dates and times are posted on harpercollege.eduharpercollege.edu

| Diane Hill, Chair <br> Barrington | Gregory Dowell, Vice-Chair <br> Deer Park |
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| Faculty |  |

- Faculty: A - E
- Faculty: F - M
- Faculty: N-R
- Faculty: S - Z
- Professor Emeritus


## Faculty: A - E

- A-E
- F-M
- N-R
- S-Z


## Anne Paslean Abasolo

Associate Professor
Student Development Faculty/Counselor

- B.A., Michigan State University
- M.S., National-Louis University


## Marjorie Allen

Assistant Professor
English as a Second Language and Linguistics

- B.A., University of Michigan, Ann Arbor, MI
- M.A., American University, Washington, DC


## Jane Allendorph

Professor
Dietetic Technician

- B.S., Purdue University
- M.S., Purdue University

Ronald N. Ally

## Professor

Executive Vice President of Finance and Administrative Services

- B.S., Elmhurst College
- M.S., Northern Illinois University
- Ed. D., Northern Illinois University
- Ed. S., Northern Illinois University


## Barbara S. Anderson

Professor
Nursing

- A.D.N., Moraine Valley Community College
- B.S., Northern Illinois University
- M.S., St. Xavier College
- C.N.E., National League for Nursing Credentials


## Gary Anderson

Instructor
Management

- B.S., University of California - Irvine
- M.B.A., Xavier University


## Nancy Andrews

Assistant Professor

- R.D.H., University of Pittsburgh
- B.S.H.R.P., University of Pittsburgh
- M. Ed., National-Louis University


## David Antonides

Associate Professor
Student Development Faculty/Counselor

- B.S., Santa Clara University
- M.A., Fuller Theological Seminary; Graduate School of Psychology


## Mariano Arellano

## Instructor

Mathematics

- B.S., California State Polytechnic University
- M.S., California State Polytechnic University


## Victoria Atkinson

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Director of New Student Programs and Retention

- B.A., Roosevelt University
- M.A. Ed., Roosevelt University


## Kenya Ayers

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Dean of Academic Enrichment and Engagement

- A.B., University of Michigan
- M.S., Eastern Michigan University
- Ed.D., University of Houston


## Lisa Ayers

Assistant Professor
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- B.S.N., Indiana University
- M.S.N., Northern Illinois University
- CNE, Certified Nurse Educator


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- M.B.A., Northern Illinois University


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- Ph.D. Northern Illinois University


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- B.S., University of Illinois -Champaign/Urbana
- M.B.A., Lake Forest Graduate School of Management
- M.S. Ed., University of Illinois - Champaign/Urbana
- Ed. D., University of Illinois - Champaign/Urbana


## Todd Ballantyne

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- B.A., Hastings College
- M.F.A., University of Iowa

Michael J. Barzacchini
Associate Professor
Director of Marketing Services

- B.S., Ohio University
- M.A., Ohio University


## James Batson

Interim Director, Technical Services

- A.A., John Wood Community College
- A.S., John Wood Community College
- B.A., Western Illinois University


## Patrick Bauer

Chief Information Officer

- B.S., University of Michigan
- M.S., University of Michigan


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- B.S., Grand Valley State University
- M.S., Central Michigan University


## Getachew Begashaw

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- M.A., Michigan State University
- Ph.D., Michigan State University


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- B.A., University of Chicago
- M.A., University of Illinois - Chicago


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- B.S., Elmhurst College


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- M.A., Miami University


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- M.A. Ed., National-Louis University
- Ed.D., National-Louis University


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- A.D.N., Kent State University
- B.S.N., Kent State University
- M.S.N., Azusa Pacific University
- C.N.E., National League for Nursing Credentials


## Bret Bonnstetter

Controller

- B.A., Iowa State University


## Willis Boughton

Associate Professor
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- B.S., Kansas State University
- Ph.D., University of Illinois


## Barbara E. Bowker

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- B.A., Beloit College
- M.A.T., Beloit College
- M.M., University of Wisconsin - Madison
- Ph.D., Northwestern University


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- A.A., William Rainey Harper College
- B.G.S., Roosevelt University
- M.I.S./M University of Phoenix


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- B.S.N., Loyola University
- M.S., Northern Illinois University
- FNP-BC, Northern Illinois University

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- M.A., University of Illinois at Chicago


## Charles W. Brown

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Philosophy

- M.R.E., St. Alphonsus Seminary
- M. Div., St. Alphonsus Seminary
- M.A., Loyola University of Chicago


## Patricia Bruner

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Graphics Arts Technology

- B.S., Illinois State University


## Philip Burdick

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Chief Communications Officer

- B.A., Shimer College
- M.S.J., Northwestern University


## Mary Colleen Burns

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Philosophy

- A.B., Loyola University
- M.A., Loyola University

Helen M. Burroughs
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Psychology

- B.A., Barat College
- M.A., Illinois School of Professional Psychology
- Psy.D., Illinois School of Professional Psychology


## Lisa Busto

Instructor
Accounting

- B.S., Marquette University
- M.B.A., North Central College
- C.P.A., State of Illinois


## Bridget Cahill

Assistant Professor
Director of Health Services

- B.S.N., Loyola University Chicago
- M.S., North Park University
- Ph.D., UIC


## Linda Campbell

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Psychology

- B.A., Roosevelt University
- M.A., Roosevelt University
- M.A., Roosevelt University


## Kathleen Canfield

Assistant Professor
Director of Career Center and Rita and John Canning Women's Program

- B.A., Northern Illinois University
- M.S. Ed., Northern Illinois University
- M.A., Northeastern Illinois University


## Joan Carlson

Professor
Nursing

- B.S.N., University of Illinois
- M.S.N., University of California-Los Angeles
- CNE, National League for Nursing Credentials

Associate Professor
Nursing

- Diploma, Evangelical School of Nursing
- B.S.N., Aurora College
- M.S.N., Aurora University
- M.B.A., Aurora University


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Instructor
Economics

- B.A., University of Madras
- M.A., Bharathidasan University


## Tong Cheng

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- B.S., Wuhan University
- M.S., Wuhan University
- Ph.D., University of Illinois at Chicago


## Bonnie M. Chisholm

Associate Professor
Dental Hygiene

- A.A.S., Eastman Dental Center/Monroe Community College
- B.S., Marquette University
- M.A., Roosevelt University


## Diana Cincinello

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- B.A., Northeastern Illinois University
- M.S. Ed., Northern Illinois University


## William Clark

Associate Professor
Mathematics

- B.S., Northwestern University
- M.S., Northwestern University


## John F. Clarke

Associate Professor
Psychology

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- B.S., Purdue University
- M.A., Webster University

Jennifer Smith
Assistant Professor
Nursing

- B.S., St. Lawrence University
- B.S.N., Georgetown University
- M.S.N., Loyola University
- M.B.A., Loyola University


## Barbara Solheim

Professor
Philosophy

- A.A., College of Lake County
- B.A., University of Illinois-Chicago
- M.A., University of Illinois-Chicago
- Ph.D., University of Illinois-Chicago

Roger Spayer
Associate Professor
Chief Human Resources Officer

- B.A., Western Illinois University
- M.P.A., University of South Florida


## Douglas Spiwak

Assistant Professor
Director of Athletics and Fitness

- B.S., University of Illinois
- M.S. Ed., Northern Illinois University


## Daniel Stanford

Professor
Chemistry

- B.S., University of Illinois-Chicago
- M.S., University of Illinois-Chicago
- Ph.D., University of Illinois-Chicago


## Thomas Stauch

Professor
Music

- B.A., Western Illinois University
- M.M., Arizona State University
- D.M.A., Arizona State University


## Craig Stettner

Associate Professor
Biology

- B.S., Purdue University
- M.S., Ball State University
- M.S., Iowa State University

Jane Suárez del Real
Assistant Professor
Adult Educational Development

- B.A., University of Wisconsin
- M.A., Seattle University


## Anna Stroh

Instructor
Health Information Technology

- B.S., Illinois State University


## Bobby Summers

Associate Professor
Political Science

- B.A., Southern Illinois University
- M.A., Southern Illinois University
- M.A.T., National-Louis University
- M.S. Ed., Northern Illinois University


## Joshua Sunderbruch <br> Professor <br> English

- B.A., Bradley University
- Ph.D., Southern Illinois University

Dominique Svarc
Assistant Professor
Accounting

- B.S., Northern Illinois University
- M.B.A., Northern Illinois University
- C.P.A., State of Illinois


## Chad Taylor

Associate Professor
Mathematics

- B.S., Illinois State University
- M.S., Illinois State University


## Kelly Taylor

Assistant Professor
Graphic Arts

- B.S., Illinois State University
- M.S., Illinois State University


## Elayne MacArdy Thompson

Professor
Psychology

- B.A., University of Wisconsin-Milwaukee
- M.A., Kent State University
- Ph.D., Kent State University


## Trygve Thoreson

Professor
English

- B.A., Arizona State University
- M.A., Northwestern University
- Ph.D., Northwestern University


## Colleen V. Tomanek

Instructor
Student Development Faculty/Counselor

- A.A., Harper College
- B.S., University of Illinois at Urbana-Champaign
- A.M., University of Chicago


## Alicia Tomasian

Associate Professor
English

- B.A., Bates College
- M.A., University of Chicago


## - Ph.D., University of Chicago

## Darice Trout

Assistant Professor
Assistant Dean, Academic Enrichment and Engagement, and Director of Adult Education

- B.S., University of Illinois - Urbana/Champaign
- M.A., University of Illinois at Chicago


## Cheryl Turnauer

Associate Professor
Fashion Design/Fashion Merchandising

- A.A., William Rainey Harper College
- B.A., National College of Education
- M.A., Northern Illinois University


## Elizabeth Turner <br> Professor <br> English

- B.A., George Mason University
- M.A., University of Tulsa
- Ph.D., University of Nebraska


## Virginia Turner

Associate Professor
Biology

- B.S., University of Illinois - Urbana/Champaign
- M.S., University of Illinois - Chicago
- Ph.D., University of Illinois - Chicago


## Jose Vital

Instructor
Heating and Air Conditioning

## Joseph Wachter

Assistant Professor
Chemistry

- B.S., University of Michigan
- M.S., Michigan State University


## Valerie Walker

Instructor
Human Services

- B.S., University of lowa
- M.S.W., University of Illinois at Chicago
- Licensed Clinical Social Worker - IL


## Jessica L. Walsh <br> Associate Professor <br> English

- B.A., Kalamazoo College
- M.A., The University of Iowa
- Ph.D., The University of lowa


## Elke Weinbrenner

Assistant Professor
American Sign Language/Sign Language Interpreting Program

- B.A., Gallaudet University
- M.A., Gallaudet University
- M.A., McDaniel College


## Stephanie Whalen

Assistant Professor
Department of Academic Success

- B.A., University of Illinois at Urbana-Champaign
- M.Ed., University of Illinois at Urbana-Champaign


## C. Jayne Wilcox

Professor
Chemistry

- B.S., Chestnut Hill College
- Ph.D., University of Pennsylvania


## LaVonya Williams

Associate Professor
Student Development Faculty/Counselor

- B.S., Western Illinois University
- M.S. Ed., Western Illinois University


## Andrew Wilson

Professor
English

- B.S., Bowling Green State University
- B.A., Bowling Green State University
- M.A., Ohio University
- Ph.D., Kent State University


## Joyce Wisniewski

Associate Professor
English as a Second Language and Linguistics

- A.A., William Rainey Harper College
- B.A., University of Missouri
- M.A., Wheaton College


## Theresa Wusterbarth

Assistant Professor
Biology

- B.S., St. Norbert College
- M.S., Central Michigan University
- Ph.D., Northern Illinois University

Judith Zaplatynsky
Professor
Computer Information Systems

- B.S., Northern Illinois University
- M.S., Northern Illinois University


## Renee S. Zellner

Professor
Kinesiology and Health Education

- B.S., University of Wisconsin
- M.A., Northwestern University


## Kathy Zuo

Associate Professor
English as a Second Language and Linguistics

- B.A., Moody Bible Institute
- M.A., University of Illinois

Buss, Cecilia Cooper, Therese Cummings, John W. Davis, John Dodds, George Dorner, George Evans, John Gallagher, Robert Held, Charlotte Herzog, Marianne Holt, Elizabeth Hull, Randy Illg, Sally Koziar, Carole Lissy, David Macaulay, Dominic Magno, Mercedes McGowen, Edger Metcalf, William Miller, Joyce Nolen, Charles Norris, Michael Oester, Barbara Olson, John Papandrea, Edward Ponczek, William Punkay, Barbara Radenbaugh, William Schooley, Martha Simonsen, Jay Singlemann, Frank Smith, Phillip Stewart, Jerome Stone, Jane Ann Thomas, Robert Tillotson, Jake Duane Tippens, Phillip Troyer, Mary Waite, Mary Jo Willis, Joseph Yohannon

## Awarded 2006

Dianne Batzkall, John Eliasik, Susan Farmer, William Jedicka, Marcia Litrenta, Paul Sipiera

## Awarded 2007

John Kiener, Margaret Smith

## Awarded 2008

Karen Froelich, Jean-Louise Gustafson, Peggy Kazkaz, Christine
Poziemski, Renate von Keudell, Barbara Weil

## Awarded 2009

Linda Nelson

## Awarded 2010

Michael Vijuk
Awarded 2013
Randall Schietzelt

## Professor Emeritus

## Awarded 2004

Steven Catlin, Jean Chapman, J. Harley Chapman, Thomas Johnson, Patricia Mulcrone, Janice Phillips

Awarded 2005
Sharon Alter, James Amesen, Roger Bechtold, Solveig Bender, Virginia Bender, Carol Bernett, Richard Bernstein, Patricia Best, Robert Boeke, Francis Brantley, Margaret Burbach, Pauline

## Resources for Students

- Continuing Education, Workforce, and Community Services
- Enrollment Services
- Resources for Learning
- Student Services


## Continuing Education, Workforce, and Community Services

A lifelong pursuit of learning is needed to keep abreast of the knowledge explosion and the influence of social and cultural changes. The Continuing Education division makes available to the community a rich array of courses, seminars and short-term programs that encourage lifelong learning and help students meet their professional, career, civic and personal development goals.

- Noncredit Programs are available in the Community Music Center, Computer Training, Health Care Career Programs, Career Training, Personal Enrichment and Sports and Recreation. Continuing education units (CEUs) can be earned for continuing education courses, satisfying the needs of many professional development requirements.
- Youth programs in sports, enrichment, and music are available for children of all ages throughout the year as well as during our In Zone summer program for students age 8-14.
- Continuing Education instructors are working professionals and experts in their field.
- Courses are offered in a variety of traditional and alternative learning formats that include workshops, seminars and extended training sessions, and on-line courses.
- Continuing Education courses designated "credit" are career skills credit and generally cannot be applied to credit certificates or degrees. No formal application or entrance assessments are required for enrollment in career skills credit classes.
- Courses are scheduled at Harper College extension sites as well as at the main campus.
- The majority of programs provide year-round start dates and are offered during the day, in the evenings and on weekends.

Schedules for Continuing Education courses are published and distributed throughout the year.

A full schedule of classes and program information is also available on the Harper Web site at harpercollege.edu/ce. For any questions, please contact Continuing Education at 847.925.6300 or e-mail ce@harpercollege.edu.

## Computer Training

## Information Technology and AutoCAD Noncredit Courses and Certificates

Harper College's Continuing Education Computer Training Program specializes in Certified IT Training and education that is designed for individuals who need hands-on technical and project management skills.

The program offers computer and project management training from end user software application classes to internationally recognized information technology and professional certifications. Short-term training classes help you learn efficiently and effectively to further career opportunities or explore new ones. Many classes run on nights or weekends to accommodate daytime work schedules, and many larger certification programs can be completed in just a few months.

Most courses are organized into CE Certificate programs, which are a series of classes that provide comprehensive training in subject areas that lead to professional certifications or a Harper CE Certificate.

Instructor-led training solutions are available in Microsoft, Oracle, Cisco, Java, CompTIA, Project Management, Autodesk (CAD), Social Media, Computer Graphic Arts, Web Design and Development, Adobe, QuickBooks and more!

The Harper College CE Computer Training Department provides training lab rentals in the Northwest Suburbs and Chicago land area. Computer Labs are available at two convenient locations, Schaumburg and Prospect Heights. Our computer labs are fully configurable and equipped with the latest technology, with a choice of operating systems and applications to meet all your technical training needs.

Microsoft Office Specialist exams are offered at the Harper Professional Center located at 650 E. Higgins Road, Suite 9 South in Schaumburg. As an authorized Prometric and Certiport Testing Center, you can take all of your technical certification exams in one convenient location.

For more information, contact a representative at 847.925.6066, E-mail: cecomputers@harpercollege.edu or visit harpercollege.edu/ce.

The Lifelong Learning Institute at Harper College is dedicated to adult learners age 55+.

The Lifelong Learning Institute at Harper College opens the door to a world of great discussions, innovative classes and new friendships. Our members pursue knowledge for the sheer joy of learning. We offer more than 100 learning opportunities each year including courses, seminars, study groups, trips, tours and lectures - all designed for the adult learner 55+. There is no homework, tests or grades to worry about! For more information, call 847.925.6065.

## Harper College for Businesses

Harper College for Businesses provides customized training, education and consulting for business and industry that meets specific needs and can be conducted on-site or on the Harper campus.

As a true partner to the business community, Harper College for Businesses helps organizations translate business strategies into bottom line results through employee development. Harper College for Businesses is a major player in the learning arena. We listen to the needs of organizations and then design solutions that meet those unique needs.

Harper College for Businesses serves as a gateway to the vast resources and learning opportunities that Harper College has to offer. These resources include leading-edge programs and courses, a talented faculty and staff, all complemented by state-of-the-art facilities. As a partner for business learning, we help organizations move forward by:

- Identifying key training needs
- Developing solutions using a consultative partnership approach
- Providing comprehensive, responsive product and service offerings
- Providing flexible, efficient delivery options sourcing only expert workforce instructors and consultants
- Customizing solutions to the needs of the organization
- Developing highly motivated employees who place customer satisfaction first
- Providing leadership in workforce and organizational development

Harper College for Businesses is a service organization-the success of our business partners defines our future.

For more information on how Harper College for Businesses can provide training, education or consulting opportunities that will help you develop your people and/or your organization, please call 847.925.6640 or e-mail training@harpercollege.edu. or visit our Web site at harpercollege.biz.

## Wojcik Conference Center

The Wojcik Conference Center contains a 250-seat state-of-theart auditorium and dining room, and smaller conference rooms that can be rented for meetings, training, and special events.

For more information on the Conference Center, or to book space, please call 847.348.5100.

## Workforce and Economic Development

The Workforce and Economic Development Department oversees all aspects of workforce development activities including the interface between Harper College and the Workforce Board of Northern Cook County in meeting the current and projected economic needs of the community and labor force. The Workforce and Economic Development Department exercise overall administrative responsibilities for the Small Business Development Center and the outreach to small and medium-sized businesses. Also provides overall administrative leadership for the Career Stimulus program which assists individuals with the opportunity to explore careers through workshops, seminars, networking, and educational options.

The Career Stimulus program addresses the many needs of individuals involved in job searching. It is not a one-size-fits-all program because each job seeker brings their own unique set of needs and priorities with them. The program leverages many of the college's resources to provide different avenues the job seeker can utilize to create a successful search strategy:

- Monthly meetings offer motivational speakers, job search techniques, personal success advice and networking, all in an atmosphere of hope, direction and respect.
- Networking and accountability groups encourage engagement and connection with others in career transition, leading to sharing of business contacts and knowledge useful to promote a successful job search.
- Career coaches help job seekers examine their attitudes, skills and barriers in a supportive and non-judgmental environment. Job seekers expand their awareness of what is possible and learn the value of accountability.
- The Career Resource Center offers assessments and interpretation of results, access to internet career programs and research material.
- An evolving database linking career seekers with volunteer, mentor, and internship opportunities.
- Short-term academic programs, continuing education training, and degree-granting programs to help job seekers meet the demands of 21st century jobs.

If you want more information, contact the Workforce and
Economic Development Department at 847.925.6438.

## Small Business Development Center

Small Business Development Center supports those with entrepreneurial interests with training, business plan development and resources. The Illinois Small Business Development Center at Harper College offers no-cost, confidential, one-on-one guidance and workshops to help small business owners achieve marketing, financial and operational success.

For more information or to make an appointment with a small business advisor, please call 847.925.6520 or e-mail sbdc@harpercollege.edu.

## Community Services

## Community Orientation and Involvement

From the beginning, College supporters have been committed to the concept of an institution oriented to its community. Harper has enjoyed a heartening involvement and interest by members of the community who continue to give countless hours to accomplish key phases of the College's programs.

Advisory committee members selected from the community for their expertise and knowledge give support to Harper on career programs, management training seminars for business and industry, women's programs, senior citizens' programs, public relations, the College's long-range plan and fund raising.

Community leaders serve as directors of the Harper College Educational Foundation, which provides scholarships and supports special projects to enhance the educational programs of the College.

In the early 1990s, the College enhanced its efforts to provide educational and training opportunities to employees of companies throughout the district. An Education Service Agreement allows employees of in-district companies to attend Harper at in-district tuition. Harper College for Businesses provides customized onsite training in everything from basic skills to new technologies. In addition, classes continue to grow in areas of English as a Second Language, citizenship preparation and Adult Educational Development.

During the summer of 2000, Harper College held "Discovery Sessions" with various community members, business leaders and students and talked about some of the key challenges facing the College to "discover" what the community really wanted from Harper. The Community Response Team (CRT), which was subsequently formed, presented several recommendations to the Board of Trustees which identified science, technology and health care as top priorities for the College to address.

At its special board meeting on August 16, 2000, the Harper College Board of Trustees was presented with the first comprehensive long-range Campus Master Plan in the history of the College. The plan, which represents a vision for the next 12 years and included the CRT's priorities, is a dynamic plan intended to guide the College into the future. It will be revised periodically to see that it still reflects the needs of the College and the community it serves.

As Harper plans for the future, input will be sought constantly and reevaluated to enable the College to continue to be accountable to the community it serves.

## Community Career Services

Community Career Services provides fee-based individual career counseling for community members. Offerings include:

- Individual career counseling for job or career change or to improve current career skills
- Career assessment instruments to help identify your interests, personality strengths and unique talents
- Resume and interviewing skill preparation.

Community Career Services is located in the Student Center, Building A, Room A347. For further information, call 847.925.6293.

## Enrollment Services

- Academic Policies
- Admissons
- Financial Assistance
- Forgiveness Policy
- Grading
- Honors
- Registration Policies
- Repeat Policy
- Transcripts
- Tuition and Fees


## Academic Policies

- Assessment Testing and Placement
- Mandatory Advising
- Standards of Academic Performance


## Assessment Testing and Placement

Harper College welcomes all who can benefit from the courses and programs offered. To that end an assessment policy is in place requiring all new degree-seeking students to complete writing, reading and math placement tests. Students entering their first English and/or math courses are also required to complete appropriate placement test(s).

## The goals of assessment are:

1. To inform students about their competency levels in English, reading/writing and math.
2. To place students in the English and math courses in which they have the best opportunity for success.

Students who place at the developmental level in any of the four subject areas are required to enroll in at least one developmental course their first semester and every subsequent semester until the respective initial college-level course is reached.

Details of the mandatory assessment testing and placement policy, including options for waiving testing, are available in the Testing Center.

## Mandatory Advising

## For Students on Probation, Post Suspension and Post Dismissal

As part of the required success-oriented strategies, students on probation, post suspension and post dismissal are required to see a counselor for educational planning and academic support. Individualized strategies will be developed to assist the student to identify causes of academic difficulties and to achieve satisfactory grade point averages. College services will be utilized to help the student reach his or her educational potential and goals. Students who fail to see a counselor will not be allowed to register for subsequent classes. Students placed on suspension and dismissal may seek counseling assistance during the semester(s) of non-attendance. Upon returning to school, previously suspended and dismissed students will be placed on post suspension or post dismissal, restricted to a maximum of 13 credit hours and required to see a counselor to develop successoriented strategies before being allowed to register.

## Standards of Academic Performance

## Rationale for Standards

The Standards of Academic Performance at Harper College have been established in order to:

Guide the student in pursuit of academic success:
The Standards assure the availability of services which can help students reach success as well as clearly notify them of their progress.

## Maintain an academic environment that clearly defines expectations for progress:

The Standards communicate the College's definition of academic progress. The Standards clarify College expectations and afford the student a guideline for setting realistic goals.

Clarify the roles and responsibilities of students, faculty and administrators:

The Standards define the role of the student in terms of academic performance and responsibility as well as the role of College personnel in evaluating academic performance and intervening with special assistance at specific intervals.

## Allow the institution to maintain its academic integrity.

## Categories of Standards

## Good Standing

Students with a cumulative GPA of 2.0 or higher and students who have attempted* fewer than seven credit hours or have not attended classes since the summer of 1989 are in good standing.

## Academic Caution

Students who have attempted* seven and not more than 15 credit hours and have achieved a cumulative GPA of less than 2.0 will receive a caution notice and the recommendation to take advantage of various programs and services designed to help them achieve success.

## Academic Warning

Students who have a cumulative GPA of less than 2.0 and have attempted* 16 or more credit hours, or have completed their second successive semester with a cumulative GPA of less than 2.0, are given academic warning. These students will be advised to restrict their enrollment to a maximum of 13 credit hours and may have other restrictions imposed upon them.

* Refers to receipt of grades $A, B, C, D$ and $F$.


## Probation

Students who were academically warned in a previous semester and have a cumulative GPA of less than 2.0 will be placed on probation. Students who have returned to good standing and then earn less than a 2.0 cumulative GPA will return to probation. These students will be restricted to a maximum of 13 credit hours and will be required to participate in success-oriented strategies.

## Suspension

Students who have attempted* 40 or more credit hours, have had three successive semesters with a cumulative GPA of less than 2.0, with one of those semesters in probation, and earned below a 2.0 semester GPA (recalculated to include repeated courses) the last semester they were enrolled are placed on suspension. These students will be suspended from the College for one full semester (fall or spring). Students suspended after spring term will not be allowed to enroll for summer session or fall semester.

Students must be involved in success-oriented strategies upon their return.

* Refers to receipt of grades $A, B, C, D$ and $F$.


## Dismissal

Students who have returned to the College after one semester of suspension and who receive a semester GPA of less than 2.0 (recalculated to include repeated courses) will be dismissed for a minimum of two full semesters (fall/spring or spring/fall). After this dismissal period, these students must petition the Dean of Student Development for reinstatement.

| Term | Reason | Action |
| :---: | :---: | :---: |
| Academic Caution | Attempted 7+ credit hours and cumulative GPA less than 2.0. | Caution and recommendations of successoriented strategies. |
| Academic Warning | Attempted 16 or more credit hours with cumulative GPA less than 2.0 or second successive semester with cumulative GPA less than 2.0. | Recommend restriction to maximum 13 credit hours. May have restrictions imposed. |
| Probation | Previous semester with Academic Warning and cumulative GPA less than 2.0. | Mandatory restriction to maximum of 13 credit hours. Required success-oriented strategies. |
| Suspension | Attempted 40 or more credit hours, at least three successive semesters with cumulative GPA less than 2.0 with one of those terms in probation and earned below a 2.0 semester GPA (recalculated to include repeated courses) the last semester they were enrolled. | One semester suspension. Required successoriented strategies upon return. |
| Post Suspension | Semester after suspension and subsequent semesters with semester GPA of 2.0 or higher (recalculated to include repeated courses) and cumulative GPA of less than 2.0. | Mandatory restriction to maximum of 13 credit hours. Required success-oriented strategies. |
| Dismissal | One semester after suspension or a previous semester in post dismissal with | Dismissal for two semesters. Must petition for reinstatement. |


| Term | Reason | Action |
| :--- | :--- | :--- |
|  | semester GPA <br> (recalculated to <br> include repeated <br> courses) and |  |
| cumulative GPA |  |  |
| less than 2.0. |  |  |$\quad$.

## Admissons

- Center for New Students and Orientation
- Early College Credit
- Eligibility / Dual Admission / Readmission
- International Students
- Limited Enrollment
- Testing Center
- Transfer of Credit


## Center for New Students and Orientation

The Center for New Students and Orientation, located in Building C, Room C104, is available to all students entering the College for the first time. The Center for New Students and Orientation assists all admitted students by providing the preliminary information helpful in their transition to Harper College. Advising is provided through appointment in small groups and individually.

This center is responsible for New Student Orientation each semester. These programs provide opportunities for new students to become familiar with the campus and services available. Students begin setting goals and are assisted in the course selection and registration process.

## Early College Credit

## Concurrent Enrollment

High School or home schooled students 16 years old and older or who have junior or senior status are eligible for concurrent enrollment consideration at Harper College pending the following:

1. Complete the Harper College Application for Admission (Early College - Concurrent/Home Schooled Version) and submit a one-time $\$ 25$ non-refundable application fee.
2. Submit high school transcript or documentation of homeschooled program.
3. Complete the Early College Supplemental Form.

Information will be reviewed by a counselor in the Center for New Students and Orientation in order to verify appropriate readiness for desired coursework. Additional information and/or a meeting with a counselor may be necessary before a final determination
can be made. For further information, contact the Center for New Students and Orientation at 847.925.6208.

## Dual Credit

The high school dual credit program provides an opportunity for qualifying high school students from Districts 211, 214 and 220 to earn both high school and college credit. For further information, call 847.925.6364.

## Eligibility / Dual Admission / Readmission

## Eligibility

All high school graduates or the equivalent (students who have successfully completed the GED) are eligible for admission to the College. A non-graduate 16 or 17 years of age who has severed his or her connection with the high school system, as certified in writing by the chief executive officer (or designee) of the high school district in which the student has legal residence, or a nongraduate 18 years of age or older, may be admitted if he or she demonstrates the capacity to benefit from programs and courses offered by the College. High school students may be admitted to selected courses upon the written approval of their high school principal (or designee) and the designated College admissions official, and with written parental acknowledgement.

## Applicants will be required to:

1. Complete a Harper College application.
2. Pay a $\$ 25$ nonrefundable application fee.
3. Submit an official copy of their final high school transcript. Students who are enrolled in high school at the time of application must, in addition, submit a current high school transcript. Students who completed the GED must submit an official copy of GED results. Non high school graduates, please contact the Center for New Students at 847.925.6208.
4. Submit official transcripts from all colleges attended.
5. Provide ACT scores. Either an official ACT score report or an official high school transcript that includes ACT scores can be submitted to fulfill this requirement. (This requirement will be waived for students who have completed 12 or more semester hours of college level credit and for students who are age 24 or older at the time of application.)

To be eligible for some College programs, the applicant may have to meet additional requirements as specified by that program.

## Dual Admission Programs

These agreements with selected universities allow students to apply for admission to Harper College and the four-year college to which they plan to transfer simultaneously. Dual admission provides a seamless transition between Harper and participating schools by providing optimum continuity of courses, faculty and resources during all four years of study. Dual Admissions Programs currently are offered through Harper College and the following four-year institutions: DePaul University, Governors State University, Northeastern Illinois University, Northern Illinois University, Rasmussen College, Roosevelt University and Western Illinois University. Applicants may obtain detailed program information from the Harper College Admissions Outreach office.

## Readmission

A student who has previously attended Harper College, and who is returning after an absence of one semester or more, does not need to complete an application for readmission. (An exception to this is a student who is applying for admission to a limited
enrollment program. Contact the Admissions Processing Office for details.) If a student has attended any other educational institution since attending Harper, official transcripts from each college attended should be submitted to the Admissions Processing Office. Students dismissed from Harper for disciplinary reasons must be reviewed by Harper's Dean of Student Affairs.

## International Students

Students from other countries attending Harper College are termed "international" students, according to the following definition: "A person who is a citizen of a country other than the United States who has a visa for educational purposes (F-1) with an intent to return to his or her homeland upon completion of his or her educational program."

International students must carry a minimum of 12 semester hours or be enrolled in the Intensive English Program. Because no scholarships are available to new international students, nor are they eligible for financial assistance, it is essential that students from outside the United States have sufficient funds to cover their expenses while in this country.

International students are not considered residents of the College district for purposes of in-district tuition or admission to limited enrollment programs.

International students are required to have health insurance coverage and will be charged an individual health insurance fee each semester. Students can receive a credit for the fee if they provide proof of equivalent coverage through a government or employer plan.

International students will be required to submit the following to the International Student Office at least eight weeks prior to the beginning of the semester or summer session in which they intend to begin their studies:

1. A completed Harper application (online or paper) with a non-refundable \$175 application fee.
2. Official transcripts and diploma of secondary school study and any university-level or postsecondary school work that has been completed or attempted. If these documents are not in English, they must be accompanied by authorized English translations.
3. An official Test of English as a Foreign Language (TOEFL) score report. To be considered for admission, students must receive a minimum score of 79 on the iBT. Students may choose to submit an official report of the IELTS with a minimum score of 6.5 . This requirement will be waived for students applying to the Intensive English Program.
4. A bank certificate or letter verifying sufficient funds for tuition and living expenses.
5. A written statement regarding what the student plans to study at Harper.
6. International Student Responsibility Checklist, signed.
7. Copy of passport (visa stamp and I-94 card if already in the United States).
8. Photograph
9. Copy of I-20 if student is transferring from another U.S. college or university.

This information is subject to change by the Department of Homeland Security (DHS). Please consult harpercollege.edu for updates.

## Limited Enrollment

## Degrees

Dental Hygiene, Diagnostic Cardiac Sonography, Diagnostic Medical Sonography, Nursing, Radiologic Technology.

## Certificates

Cardiographic Technician, EMT-Basic, EMT-Paramedic, Practical Nursing, Mammography.

For up-to-date information about eligibility for admission, and requirements, procedures, and options available to students interested in limited enrollment and other programs, contact the Admissions Outreach Office or check the website: www.harpercollege.edu

Limited enrollment program files will be reviewed after the initial program application deadline.

Because of the nature of clinical experiences, individualized instruction, specialized technology and the equipment necessary to offer certain limited enrollment programs, a higher tuition rate is assessed for career specific courses in these select programs. Tuition for these courses is 200 percent of the standard tuition rate.

## Testing Center

This office is located in the Student Center, Building A, Room A148, and is responsible for the coordination and administration of placement testing and other testing programs available to Harper College students and community members. All new degreeseeking students are required to participate in an orientation program that includes placement testing. New degree-seeking students assess their academic skills in writing, reading and mathematics through this battery of tests. Tests for distance learning classes, independent study programs, proficiency and CLEP testing and entrance examinations for limited enrollment programs are coordinated in this office. Harper College also participates in national testing programs, either as a test center or as a source of information.

## Transfer of Credit

Degree and certificate-seeking students who have attended any other college(s) and want their transcripts evaluated must have an official transcript from each college attended sent to the Admissions Office immediately upon making application. Students must also complete a transcript evaluation request form found at harpercollege.edu. Once the evaluation request has been submitted and all transcripts have been received, results will be mailed and can be viewed online through the student portal. Transcript evaluations may take 2-3 weeks to process.

A student may transfer credit to Harper College according to the following conditions:

1. The collegiate institution previously attended must be a regionally accredited institution awarding college credit.
2. Credit may be transferred to Harper College for courses earning credit and successfully completed with a grade of D or better if the student's cumulative grade point average (GPA) is 2.0 or above (C average) at the previously attended institution. (Some programs may require grades of $C$ or better, have time limitations or restrictions. Please refer to the current curriculum for possible exceptions). If the student's cumulative GPA is less than 2.0 at a
previously attended institution, credit may be transferred for courses earning credit and successfully completed with a grade of $C$ or better. The student's work at each institution is evaluated independently if several institutions were attended. A student must petition for evaluation of transfer credit through one of the following offices: Registrar's Office, Admissions Processing, Admissions Outreach or online at harpercollege.edu.
3. Credit may be transferred, but the grades earned at other institutions are not transferred, nor are the grades included in computing the cumulative GPA at Harper College. Grades from other institutions may be used to determine whether a student has successfully met course prerequisites. Elective credit may also be awarded for transfer course work with no direct equivalency at Harper College.
4. Courses which are a part of a department or program of study not offered by Harper College are considered nontransferable.
5. Evaluation of credentials from a foreign country may be requested by contacting World Education Services at www.wes.org. The Office of the Registrar at Harper College will use the WES results to determine transfer of foreign credit to the College.
6. Effective for students following the 1999-2000 Catalog (and thereafter), transfer students must earn a grade of $C$ or better in their courses equivalent to ENG 101-Composition and ENG102-Composition at the collegiate institution previously attended. This requirement will be in place for the A.A., A.S., A.F.A. and A.E.S. degrees, as well as the IAI core curriculum for students who are not completing the degree.

## Financial Assistance

Harper College offers an outstanding education at an affordable cost. Many of our students receive grants, scholarships, campus employment, and loans from the Office of Student Financial Assistance (OSFA) to help with their educational expenses.

The primary responsibility of funding educational expenses rests with the student and the student's family. If the financial assistance awarded does not cover expenses, the student is responsible for paying the remainder within Harper College's established payment deadlines.

The majority of the funds administered by the OSFA are based on demonstrated financial need. To be considered for financial aid, the student must:

- Complete the Free Application for Federal Student Aid (FAFSA), a federal form;
- Have current financial aid documents on file with OSFA each academic year; and
- Be enrolled in a program of study leading to an associate degree or a certificate (>16 credit hours) at Harper College.

A student must meet specific eligibility criteria to receive financial aid from federal, state, Foundation, and private sources that are awarded in the following order.

- Federal Pell Grant
- Outside Grants and Scholarships
- Foundation or Trustee Awards
- Federal SEOG Grant
- Illinois Veterans' Grant/Illinois National Guard Grant
- Illinois Monetary Award Program (MAP) Grant
- Federal Work Study Award
- Subsidized Federal Direct Stafford Loan
- Unsubsidized Federal Direct Stafford Loan


## - Federal Direct PLUS Loan

Detailed information about financial aid requirements, deadlines, and programs is available in the Financial Aid section at www.harpercollege.edu

## Refund Policy for Financial Assistance Recipients

Harper students who are financial assistance recipients must be aware of all refund policies including the federal Return of Title IV Funds policy. Eligible students who officially withdraw from all classes before 60 percent of the term has elapsed will receive a proportional refund based upon the official date of withdrawal. The official date of withdrawal is the withdrawal date as recorded by the Registrar's Office and is based on the date that appears on the Student Add/Drop form as filed with that office.

Harper calculates refunds proportionally and must determine the unearned amount of Title IV Funds that must be returned to the Student Financial Aid (SFA) programs. The school bases the amount of unearned assistance that must be refunded on the applicable federal calculations.

Before any refund is made to the student, the Office of Student Financial Assistance must return funds to the appropriate financial aid program(s). Students may contact the Office of Student Financial Assistance for further details.

Refunds will be processed within 14 days after a credit balance is on a student's account.

## Satisfactory Academic Progress Requirements for Financial Assistance

In addition to the Standards for Academic Achievement, federal and state financial aid recipients must also comply with all Satisfactory Academic Progress requirements for financial assistance as follow.

1. A student must have a cumulative grade point average ofat least 2.0.
2. A student must complete at least 67 percent of the credit courses attempted throughout his/her entire enrollment at Harper College, whether or not financial aid was received.
3. A student must complete an associate degree or certificate within 150 percent of attempted credit hours relative to the number of credit hours required to complete the program.

The complete Satisfactory Academic Progress Policy, including requirements, is posted in the Financial AidFinancial Aid_blank section of the Harper web site.

## Scholarships

## Harper College Scholarships

Information and an online application for Harper College Scholarships are available in the Financial Aid section at www.harpercollege.edu Visit this web page regularly as scholarship opportunities are constantly changing.

## Academic and Leadership Scholarships

- Distinguished Scholar - Full tuition for 60 credit hours
- Trustee Scholarship - Full tuition for 30 credit hours


## Harper College Educational Foundation Scholarships

More than 100 Educational Foundation Scholarships are awarded on a competitive basis.

## Transfer Scholarships

Many four-year institutions offer scholarships designated for transferring community college students. The following are some colleges that may have scholarship resources available to Harper College students

- Benedictine University, Lisle
- Bradley University, Peoria
- Columbia College, Chicago
- Concordia University, River Forest
- DePaul University, Chicago
- DeVry University, Addison and Chicago
- Dominican University, River Forest
- Eastern Illinois University, Charleston
- Illinois Institute of Technology, Chicago
- Illinois State University, Normal
- Kendall College, Chicago
- Knox College, Galesburg
- Lewis University, Romeoville
- Loyola University, Chicago
- Marquette University, Milwaukee, WI
- McKendree College, Lebanon
- North Central College, Naperville
- Northern Illinois University, DeKalb
- Quincy College, Quincy
- Ripon College, Ripon, WI
- Roosevelt University, Schaumburg and Chicago
- Saint Xavier University, Chicago
- Southern Illinois University, Carbondale
- University of St. Francis, Joliet
- Western Illinois University, Macomb


## Veterans Services

Harper College is distinguished as a Military Friendly School, an honor given to universities and colleges nationwide for their efforts to embrace America's veterans-turned-students.

Our veterans receive invaluable services from the OSFA to maximize their benefits and be successful while attending classes at Harper. Individual assistance is available to help complete veteran enrollment certification and updated information is channeled to keep Illinois veterans informed about their eligibility criteria for the Illinois Veteran Grant.

Detailed information relating to Harper's veterans' assistance programs is available in the Financial Aid section at www.harpercollege.edu Eligible veterans and servicepersons receive a monthly educational allowance to attend school. The following scholarship and grant programs are available to cover education benefits for veterans such as tuition and mandatory fees.

- Illinois Veterans Grant (IVG)
- Illinois National Guard Grant (ING)
- MIA/POW Scholarship
- Post 9/11 G.I. Bill (Chapter 33)
- G.I. Bill Programs
- Montgomery GI Bill (Chapter 30)
- Reserve Educational Assistance Program-REAP (Chapter 1607)
- Selected Reserve (Chapter 1606)
- Survivors and Dependents Educational Assistance (Chapter 35)
- Veterans Vocational Rehabilitation (Chapter 31)


## Forgiveness Policy

Under limited circumstances, a student may petition to have previously earned F grades excluded from the calculation of the cumulative grade point average. If the F grades are excluded from the cumulative grade point average calculation, they will still appear on the student record.

Eligibility guidelines and procedures are available in the Student Development Centers, Registrar's Office and at harpercollege.edu.

## Grading

Approximately one week after the course ends, the student will receive a grade for each class in which he or she was officially enrolled. Students attending without registering and paying for a class will not be allowed to receive a grade once the semester ends. The official grade point average is computed on the basis of final grades awarded at the end of each semester or term. Students may view grades online through the student portal at Student Portalhttps://my.harpercollege.edu_blank

## Grade Points

Grade points are numerical values which indicate the scholarship level of the letter grades. Grade points are assigned according to the following scale:

| Grade | Significance | Grade Point |
| :--- | :--- | :--- |
| A | Superior | 4.0 |
| B | Good | 3.0 |
| C | Average | 2.0 |
| D | Poor | 1.0 |
| F | Failure | .0 |
| FG | F Grade Forgiven | .0 |
| H | Audit | .0 |
| IP | In Progress | .0 |
| NR | Not reported by | .0 |
| P | Instructor |  |
| W | Pass | .0 |
| X | Withdrawal | .0 |

The following classes are not computed in the semester cumulative grade point average:

Communication Skills all courses
English as a Second Language.
$\qquad$ al courses

All $\mathbf{P}$ graded courses
Course work with an $\mathbf{R}$ designation after the grade indicates that the course is a developmental course (AR, BR, CR, DR, etc.) not included in grade point average.

Course work with a $\mathbf{V}$ designation after the grade indicates that the course is a vocational skills course (AV, BV, CV, DV, etc.) not included in grade point average.

CRD - Miscellaneous credit - AP, CLEP, Proficiency, or
Articulated credit - not included in grade point average.

## Transfer Credit

Transfer credit is designated with a T followed by the letter grade originally earned in the course of $\mathrm{A}, \mathrm{B}, \mathrm{C}$, or D . Only the credit hours are accepted. Prior to Spring 2009, transfer credit is designated with a T grade.

Academic Standing will be processed at the end of each semester.

## Incomplete Grades

A student may be assigned a grade of $\mathbf{X}$ for unfinished work in a course provided the work was incomplete because of circumstances deemed to be unavoidable or uncontrollable (to be determined by the instructor). The work to be completed will be assigned by the instructor. The unfinished work must be satisfactorily completed by the midterm of the following 16 -week semester. Failure to do so will result in a grade of $\mathbf{F}$.

## Honors

Beginning fall 2010, Harper College will recognize academic achievement each semester by designating an academic recognition to students who meet the following criteria:

## President's List

Each semester, students who successfully complete 9 or more college level credit hours and achieve a semester grade point average of 3.75 or higher will be recognized as President's List students.

## Dean's List

Each semester, students who successfully complete 6 or more college level credit hours and achieve a semester grade point average of 3.50 or higher will be recognized as Dean's List students.

Honors designations will be noted each semester on the student academic record. The total number of hours a student successfully completes will determine the designation received, based on the grade point average.

## Graduate Honors Designation

Beginning fall 2010, Harper College will recognize the academic achievement of its associate degree graduates by designating Academic Honors to students who have completed a minimum of 45 semester hours of their coursework at Harper College and who meet the following criteria:

- Cum Laude: 3.5-3.749 cumulative GPA
- Magna Cum Laude: 3.75-3.899 cumulative GPA
- Summa Cum Laude: 3.9-4.0 cumulative GPA

The official transcript will show honors designations based on the student cumulative grade point average upon completion of the associates degree program.

## Registration Policies

- Attendance Policy
- Auditing a Course
- Business EdVantage Agreement
- Enrollment Status Verification
- Residency
- Withdrawals


## Attendance Policy

Regular attendance is necessary for satisfactory college work. Each instructor or program coordinator has the responsibility of establishing the attendance requirements which best suit the educational goals of a class or program. No central class attendance record is kept other than a midterm report. It is the student's responsibility to learn the instructor's attendance policy for each course, as well as to discuss with their instructors any extraordinary circumstances affecting his/her attendance. Students attending without registering and paying for a class will not be allowed to receive a final grade once the semester ends.

## Auditing a Course

A student who wishes to audit a course will be required to pay full tuition and fees and must obtain approval from the instructor, department chair or dean prior to enrollment in the course.

Registration for audit status may be completed only during the first week of the class and must be the original enrollment in the class. Changes from credit to audit are not permitted. Students taking a course for credit are given priority in registration.

Upon completion of the course, the instructor will assign an $\mathbf{H}$ grade. This grade does not count in cumulative hours or grade point average.

## Business EdVantage Agreement

Businesses within the Harper College district offer Harper indistrict tuition rates to employees who live outside the College district but within Illinois. The Business EdVantage Agreement program permits employees of in-district businesses to attend Harper classes at in-district rates. Students are required to submit a current pay slip each term and must be consistently employed throughout the semester to be eligible for this program. The indistrict tuition is available whether the cost is to be paid by the employees or by the company.

Students and employers who are interested in this program should contact the Admissions Outreach Office at 847.925.6700.

International students are not eligible to use the Business EdVantage Agreement.

## Enrollment Status Verification

Students may have current or previous enrollment verified by the Registrar's Office, Student Center, Room A213, or by the National Student Clearinghouse online at www.studentclearinghouse.org or by phone at 703.742.4200. The College Registrar's Office reports enrollment status verifications on the basis of full-time, half-time and less than half-time enrollments as defined below.

## Full-time Status

A student is considered full-time if he/she is enrolled in 12 or more credit hours during the fall or spring terms. ( 6 credit hours during the summer term).

## Half-time Status

A student is considered half-time if he/she is enrolled in 6 or more credit hours but fewer than 12 credit hours $(6-11.9)$ during the fall or spring terms. (3-5.9 credit hours during the summer term).

## Less than Half-time Status

A student is considered less than half-time if he/she is enrolled in fewer than 6 credit hours during the fall or spring terms. (Less than 3 credit hours during the summer term).
A current semester verification is based on the enrollment status of the student on the day after the refund period ends for those courses in which the student is enrolled. A previous semester verification is based on the actual dates of attendance.

## Registration

Students may register for course(s) without the instructor's approval up to 3 days after the start of the course(s). After the third day, students must have written approval from the instructor to register for course(s).

## Residency

Students enrolling at Harper College shall be classified as Indistrict, Out-of district, Out-of-state or Out-of-country for tuition and fee purposes:

## In-district Resident

A student who has resided within the State of Illinois and the Harper College district* 30 days immediately prior to the start of the term is eligible to be classified as an in-district student for tuition calculation purposes. Proof of in-district status is required at the time of registration. Proof of residence can include current driver's license, voter's registration card, lease, utility bill or tax bill.

## Out-of-district Resident

A student who has resided in the State of Illinois, but outside the Harper College district, for 30 days* immediately prior to the start of the term shall be classified as an out-of-district student.

## Out-of-state Resident

A student who has resided in the State of Illinois for less than 30 days** immediately prior to the start of the term shall be classified as an out-of-state student.

## Out-of-country Resident

A student whose permanent residence is outside the United States and is attending Harper College on an F-1 visa shall be classified as an international student.

* Communities in Harper College District \#512: Arlington Heights, Barrington, Barrington Hills, Buffalo Grove+, Carpentersville+, Deer Park+, Des Plaines+, Elk Grove Village, Fox River Grove+, Hanover Park+, Hoffman Estates+, Inverness, Lake Barrington, Mount Prospect, North Barrington, Palatine, Port Barrington, Prospect Heights, Rolling Meadows, Roselle+, Schaumburg, South Barrington, Tower Lakes, Wheeling.
+ Portions of these communities are not included in the district.
** Students who move from outside the state or district and who obtain residence in the state or Harper district for reasons other than attending the community college shall be exempt from the thirty day requirement if they demonstrate through documentation a verifiable interest in establishing permanent residency. The Registrar's Office shall make the final determination of residency status for tuition purposes.


## Withdrawals

Students who wish to withdraw from a class after the regular registration period must withdraw officially by the appropriate
deadline date. A student who does not withdraw officially from a class prior to the last date for withdrawals is subject to an F grade.

Criteria and procedures for a withdrawal due to significant medical reasons are available in the Health and Psychological Services Office, A364 or at harpercollege.edu.

The following guidelines determine grades for an official withdrawal from a 16-week course; the timetable for withdrawing from other courses (12-week, 8-week, 4-week, etc.) will be determined on a pro rated basis according to these guidelines:

1. Classes dropped prior to the refund period will not become a part of the student's permanent record;
2. A W grade will be assigned to a class dropped after the refund period and prior to the last date for official withdrawals;
3. A student who does not withdraw officially from a class prior to the last date for withdrawals is subject to an $F$ grade.

The deadline to withdraw from classes is available by viewing the student schedule on the MyHarper Student Portal and in the official College calendar for the year in question. Please refer to harpercollege.edu.

## Military Withdrawals

In support of America's call to military action, the College will offer full refunds of tuition and mandatory fees to all military reservists, National Guardsmen and active-duty military personnel who receive emergency orders preventing them from attending classes after they have enrolled at the College. Official documentation is required. Please contact the Registrar's Office for additional information at 847.925.6500.

## Repeat Policy

Students will be allowed to repeat courses and attempt to earn a higher grade for classes taken at Harper College. When a course has been attempted more than once, only the highest grade received for that course will be used to compute the cumulative GPA. The lower grade(s) will remain on the transcript but will not be used to compute the Harper College cumulative GPA. The repeat policy applies only to courses currently offered. A student transferring to another college should check the institution's repeat policy as it may differ.

Note: In the case of courses that are approved to be taken more than one time, the repeat policy is not in effect until the number of approved repeatable hours is exceeded.

## Transcripts

Students may order their Harper College transcripts online at harpercollege.edu. There is a $\$ 5$ fee for each official transcript ordered. Additional fees may be charged based on method of delivery; electronic transcripts are available with some institutions. The College reserves the right to withhold transcripts of persons who have past due monetary obligations such as tuition, fees or materials. All holds must be cleared before a transcript is released. Transcripts are generally processed within four (4) working days.

## Tuition and Fees

## Tuition for Credit Classes*

In-District Residents: $\$ 108.50$ per credit hour (full-time employees of in-district companies are also eligible)

Out-of-District: $\$ 365.50$ per credit hour
Out-of-State: \$441 per credit hour
Out-of-Country Student: \$441 per credit hour
Programs/Courses with variable tuition
Programs

- Cardiographic Technician certificate
- Computerized Tomography certificate
- Dental Hygiene degree
- Diagnostic Cardiac Sonography degree
- Diagnostic Medical Sonography degree
- Mammography certificate (RAD)
- Nursing degree
- Practical Nursing certificate
- Radiologic Technology degree


## Courses

- CGT prefix
- DCS prefix
- DHY prefix
- DMS prefix
- NUR prefix
- RAD prefix
- OCC prefix
*Subject to change without notice


## Fees for Credit Classes

- Application Fee: \$25
- Activity Fee, full-time student: \$42
- Activity Fee, part-time student: $\$ 21$
- Registration Fee (nonrefundable): \$15 Students are responsible for payment of the $\$ 15$ nonrefundable registration fees for all registrations that are dropped for non-payment.
- Technology Fee: $\$ 7$ per credit hour
- Construction and Renovation Fee: $\$ 9$ per credit hour
- Laboratory, Music and other class fees: Will be indicated at time of registration
- Academic Transcripts Fee: \$5 per transcript


## Application Fee

A one-time application fee of $\$ 25$ is charged to each new student applying for admission for credit courses. The fee, which is nonrefundable, covers the cost of processing the application.

## Activity Fee

Students enrolled for 12 or more credit semester hours will pay a $\$ 42$ activity fee for each semester; students enrolled for less than 12 hours will pay a $\$ 21$ activity fee. No activity fee is charged for students enrolled only in Continuing Education courses. However, students enrolled only in continuing education may wish to pay the activity fee and obtain a HarperCard (see: Student Activities).

## Special Music Fee

Students enrolled in MUS 100 level courses will pay $\$ 100$ per semester, per course. This entitles the student to one 30 minute private lesson per week. MUS 200 level music students will pay $\$ 200$ per semester, per course and will receive one 60 minute private lesson per week.

## Laboratory, Music and Other Class Fees

Laboratory, music and other class fees will be indicated at time of registration.

## Registration Fee

A \$15 non-refundable registration fee is charged to all students registering each semester for credit courses. If a student decides to drop all of his/her courses after he/she had registered for a semester, he/she is required to pay the $\$ 15$ registration fee. If a student is dropped from a class for non-payment, an additional $\$ 15$ registration fee will be assessed when he/she re-enrolls.

## Technology Fee

A technology fee of $\$ 7$ per credit hour will be assessed for students enrolled in credit courses. The fee will support all technology throughout the campus such as computer labs, instructional technology, resources of the library, and Web registration.

## Construction and Renovation Fee

A renovation fee of $\$ 9$ per credit hour will be assessed to students enrolled in credit courses. The fee will support the College's infrastructure and the renovation of outdated facilities.

## Payment Deadlines

A payment due date is established each term for registrations prior to that date. For registrations after the payment due date, payments are due 48 hours following the student's registration. If payment is not made by the payment due date, the student's classes will be dropped and an additional $\$ 15$ non-returnable registration fee will be assessed if he/she re-enrolls. Students unable to pay all charges when due may enroll in a payment plan. Details are available at harpercollege.edu. To pay online or set up a payment plan, login to MyHarper Student Portal, select the MyPayments tab, go to the Student Account Links section. Students receiving Federal, State, Private or Institutional (Harper College) Grants, Scholarships or Student Loans must sign up for e-Cashier's Deferred Payment Plan. Failure to do so may result in dropped classes. Students may apply for financial aid at the Scholarships and Financial Assistance Office, Building C, Room C102.

## Senior Citizen Discount

District residents age 65 years of age and older are eligible for a 100 percent tuition discount for all credit courses. This discount applies only when registering three calendar days (or later) before the first day of that particular class. This must be the student's initial enrollment in the class and there must be space available. Students may not drop and re-enroll for the discount. This discount does not apply to fees

## Chargeback Tuition

In-district students desiring to pursue a certificate or degree program not available through Harper College may apply for chargeback tuition if they attend another public community college in Illinois which offers that program.

Approved students will pay the in-district tuition of the college where they will be attending classes. The remaining tuition charges will be paid by Harper College for approved classes.

Application for chargeback tuition must be made in the Office of the Registrar 30 days prior to the beginning of the term for the college in which the student wishes to enroll.

Out-of-district students approved for chargeback tuition from their community college will pay Harper's in-district tuition and their district community college will reimburse Harper for the balance of the tuition for approved classes.

## Tuition Refund Policy

## Fall/Spring Semesters:

| Term | Percentage of Refund |
| :--- | :--- |
| 16-Week Classes First week <br> of classes through Sunday <br> No refund after first week of <br> semester | $100 \%$ |
| 12-Week Classes First week <br> of classes through Sunday <br> No refund after first week of <br> semester |  |
| 8-Week Classes First week <br> of classes through Sunday <br> No refund after first week of <br> semester | $100 \%$ |
| 4-Week Classes First |  |
| week of classes through |  |
| Wednesday |  |
| No refund after Wednesday |  |
| of the first week of class |  |

Classes offered in other formats or on the weekend (Friday, Saturday and Sunday) may have separate refund dates. Please refer to the Academic Calendar at harpercollege.edu for specific refund and withdrawal dates.

## Summer Session:

| Term | Percentage of Refund |
| :--- | :--- |
| 8-Week Classes First week <br> of classes through Sunday | $100 \%$ |

No refund after the first week of the semester Refunds vary for non 8-week classes. Please refer to the Academic Calendar at harpercollege.edu for specific refund and withdrawal dates.

## Tuition Refunds

Refunds are not processed until the 100\% refund period has passed.

## Refund Eligibility

To be eligible for a refund, students must drop during the 100\% refund period. Refund and withdraw dates may vary per class, depending on the end date of the section within each Part of Term and are listed on the online version of the Academic Calendar. Refund deadlines will also be listed on the course schedule and the student's schedule on the My Registration tab of the My Harper Portal. Students who do not attend class and who do not submit an official written notice for dropping a class(es) will not receive any refund and are subject to an $F$ grade.

## Refund Process

If payment was made by credit card in person or online through Quikpay, the refund will be applied to the credit card account from which the payment originated as long as the refund is within 75 days of the payment date.

If payment was made with cash, check, or through a payment plan, the refund will be in the form of a check, direct deposit or onto your student refund card. The direct deposit or student refund card needs to be established at least one week prior to a refund being issued to ensure that the refund is directed to the correct location.

## Student Refund Card

The Student Refund Card works much like a regular debit card. The refund card can be obtained in the Business Office in Building A, Room 214.

## Direct Deposit

Direct Deposit forms are available in the Business Office and are printable off the MyHarper Student Portal under the My Payment tab. Complete the form, attach a voided check, and either deliver it to to the Business Office in Building A, Room 214, or fax it to the Business Office at 847.925.6052.

- Please remember that you must notify the Business Office of any change in your bank account
- The bank account must have the student's name on it.

When a refund is issued, a notification email is sent to the email address provided upon signing up for direct deposit. Direct deposit funds normally take a minimum of 48 hours to reach the bank account once the refund has been processed.

## Excess Financial Aid

Refunds that are issued due to having excess financial aid will be issued as a check, direct deposit, or student refund card within 14 days of the crediting showing on the student account.

## Resources for Learning

- Library Services
- Success Services
- Tutoring
- Writing Center


## Library Services

Library Services, located in Building F, teaches students how to find and evaluate information for their research, provides print and electronic resources, and creates a learning environment which encourages active self-inquiry. The goal is to create a dynamic, functional relationship between information and people. The collection contains more than 300,000 books, and over 15,000 newspapers, magazines and journals (print and online). The collection also includes Ebooks, streaming video and compact discs. Access to reference services, library instruction, interlibrary loan, electronic resources, College Archives, reserve materials, laptops, copy machines and an online catalog is provided. Materials added to the collection are catalogued using the Library of Congress system. Individual study spaces and study rooms for small groups are also available. Viewing and listening spaces, each equipped with a variety of media, are used to support individual instruction.

The Library's online catalog (l-Share) provides access to over 75 academic library collections in Illinois. All electronic resources can be accessed remotely or through workstations on the first and second floors of the library. A valid College I.D. card is required for borrowing materials. For more information, call 847.925.6184 or visit Library Servicesharpercollege.edu/library_blank.

## Success Services

## Success Services for Students

Learn to study smarter. Success Services for Students provides individual instruction for students who would like to improve their learning skills. One-hour sessions include Study Skills,

Test Taking Tips, Time Management, Reading Strategies, Test Anxiety, Memory, Concentration, Motivation, Note-taking Skills, Math Strategies, Accounting Tips, Preparing for Finals and Online Study Tips.

Students can also schedule a Test Performance Analysis in any content area. They will be given a complete breakdown on types of errors being made as well as given specific strategies to utilize on subsequent tests. In the Learning Styles Inventory session, the student's personal learning style is determined and specific strategies are recommended to complement that style. Students can take the Study Behavior Inventory, which identifies strengths and weaknesses in specific academic activities and attitudes.

Success Services for Students is part of the Resources for Learning Division. Appointments may be scheduled by coming directly to Building F, Room F332, or by calling 847.925.6715. For additional information, visit Department of Success Serviceshttp:// dept.harpercollege.edu/student_success_blank

## Community Success Services

Sessions are offered to high students and community members for a fee of $\$ 25$ per hour. For additional information, call 847.925.6715.

## Tutoring

## Tutoring Center

Free tutoring is available in more than 90 courses. This assistance is provided by professional and peer tutors. Students must be enrolled in the course for which they are seeking tutoring.

Services that are offered include tutoring by appointment, tutoring on a walk in basis and review seminars and workshops. Study guides are also available for certain courses.

For additional information and hours of operation, contact the
Tutoring Center in Building F, Room F315, or call 847.925.6539.

## Community Tutoring Center

Harper's Community Tutoring Center serves students of all ages in the community. Qualified tutors will offer help to students in various areas including mathematics, accounting, computers, biology, English, chemistry and writing. Cost for the one-on-one tutoring session is $\$ 25$ per hour.

Tutoring sessions are scheduled by appointment only. Contact the Community Tutoring Center in Building F, Room F315, or call 847.925.6000 Ext. 2053 for more information.

## Writing Center

The Writing Center provides a workshop learning environment designed to facilitate the preparation of written academic work. Several free services are available to help Harper students succeed. They can work in the open computer lab, consult with writing specialists on a walk-in basis about their papers in all academic areas, and make appointments with English tutors to discuss specific assignments and develop skills in writing, literacy, and critical thinking.

Located in F303, the Writing Center is part of the Resources for Learning Division. For additional information visit http:// dept.harpercollege.edu/writing_center, or call 847.925.6796 to make an appointment.

## Student Services

College can be a positive and enriching experience for students of all ages and backgrounds. Harper College wants every student to achieve success in his/her college endeavor and to have the opportunity to grow both in and out of the classroom. The programs and services listed below are designed toward this end.

- Academic Advising and Counseling Services
- Access and Disability Services
- Athletics
- Box Office
- Child Learning Center
- Computer Labs
- Dining Services
- Fitness Center
- Harper Early Alert Team (HEAT)
- HarperStore
- Health and Psychological Services and Wellness Programs
- I.D. Cards
- Police Department
- Rita and John Canning Women's Program
- Student Involvement


## Academic Advising and Counseling Services

The Academic Advising and Counseling Centers provide services to help students develop their educational plans. Services include assistance with course selection, information on Harper's career and transfer programs and access to current online and written resources. There are three Centers:

- Academic Advising and Counseling Center, I117
- Career Center, A347
- Center for Multicultural Learning / Minority Student Transfer Center, D142

Counselors in these Student Development centers also offer personal counseling to students, provide counseling designed to meet the needs of adult students and assist students in academic difficulty.

Students are encouraged to see a Student Development Counseling Faculty member each semester to update their educational plans, check for changes in the Harper curriculum and verify transfer information. It is recommended that students call well in advance to schedule appointments, particularly during mid and late semester.

In addition, the Career Center assists students in making career or college major choices, or in gaining skills to aid in the job search process. A variety of career and academic information is available and Student Development faculty provide assistance with the decision-making process through the Major In Success! program, individual counseling as well as career planning courses.

Students can obtain internship assistance from the Job Development Specialist by calling 847.925.6516.

Job listings are available through College
Centralwww.collegecentral.com/harper_blank. This free password-protected job listing system annually catalogs many Chicago-area jobs. Students have the added advantage of posting their resumes at www.collegecentral.com/harper for employers' viewing. Harper students can also gain the skills necessary for successful job searching, resume writing and interviewing by coming to the Career Center in Building A, Room A347.

Students looking for an on-campus job as a Student Aide can apply online at jobs.harpercollege.edu. Assistance with oncampus application completion is available in the Career Center in Room A347 or by calling 847.925.6220.

The primary objective of the Center for Multicultural Learning / Minority Student Transfer Center is to support the academic success and retention of under-represented minority students. In addition to the counseling and support services provided in the other academic advising and counseling centers, the Center for Multicultural Learning / Minority Student Transfer Center offers unique services such as a summer bridge high school to college transition program, cultural programming and an annual Multicultural Student Leadership Retreat.

The Multicultural Drop-in Center, D131, serves as the home of the multicultural clubs. There is club meeting space as well as a place for students to gather, do homework or check email.

## Access and Disability Services

The mission of Access and Disability Services is to create a comprehensively accessible environment and to empower students to become actively involved in all aspects of campus life. Harper College complies with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and the Americans with Disabilities Act Amendments Act of 2008.

New students should contact ADS to arrange an intake interview, apply for access/accommodations and furnish pertinent information about the nature and extent of their disability. All new students will be interviewed and may participate in the College assessment program. ADS assists students in choosing their courses, setting career goals, maintaining good academic standing and planning for after college. In addition, ADS offers students the use of a wide variety of specialized equipment and works closely with the faculty and staff of other departments at Harper to insure that the campus is physically, electronically and programmatically accessible to students with disabilities.

Specialized support for students with ADHD or learning disabilities is available. Contact the Coordinator of Learning Services. Diagnostic testing for learning disabilities is also available for a fee. New students who participate will be assigned to a Learning Specialist and enroll in a First Year Experience (FYE101) course for college credit.

Students interested in securing access or services should contact ADS at the earliest possible date at 847.925.6266 (voice) or 224.836 .5048 (VP). Some services such as conversion of print material to digital, large print, auditory or Braille format require 4-6 weeks lead time. The ADS office is located in Building D, Room D119. Availability of some services may be limited or delayed for students who turn in requests late.

ADS also provides information, accommodations and services to campus visitors as needed. Requests for information or services should be made to the Director of ADS. Employees of the College who need reasonable accommodations should contact Human Resources to obtain procedures for requesting accommodations.

## Kimball Hill Family Deaf Institute

Thanks to the generosity and support of the Kimball Hill family, ADS has developed a smart classroom for deaf and hard of hearing students, expanded access services such as captioning and increased instructional support in reading, writing and math. The Deaf Institute is part of a state-wide effort to serve deaf and hard of hearing students. It is a collaboration between Harper College, the Department of Rehabilitation Services and private donors.

## Athletics

## Intercollegiate

Harper College offers 12 Intercollegiate sports: Men's Soccer, Women's Soccer, Men's Cross-Country, Women's CrossCountry, Women's Volleyball, Wrestling, Men's Basketball, Women's Basketball, Baseball, Softball, Men's Track \& Field and Women's Track \& Field. The College is a member of the North Central Community College Conference (N4C), which includes Triton, DuPage, Rock Valley, Joliet Junior College, Madison College, Milwaukee Area Technical College, and Wright College (basketball only). Harper College is also a member of the National Junior College Athletic Association (NJCAA), which has a membership of approximately 560 junior and community colleges throughout the United States.

To participate in a sport, a student must meet NJCAA eligibility rules. Students must also furnish an acceptable record of a physical examination taken within one year of the ending date of their sport season. Interested students should contact the athletic office (Wellness and Sports Center, Room M219) to determine eligibility status and receive specific sport information.

Other questions may be directed to the athletic director at 847.925.6969.

## Recreation

The Harper Recreation program provides free access to the gymnasium, weight room and pool for students, staff, and faculty during the fall and spring semesters. The open recreation schedule is available in the Wellness and Sports Center, M219, or online at www.harperhawks.net. The schedule is subject to change. Community members may purchase a recreation pass in M219 during regular business hours.

## Box Office

Harper College offers two box office locations. The J Theatre Box Office is located in Building J, Room 135. Operating hours are Monday - Thursday, 8 a.m.-7 p.m. and Friday, 8 a.m.-4:30 p.m. The J Theatre Box Office is also open beginning one hour prior to a scheduled ticketed event in the J Theatre. The Daily Herald Box Office in the Performing Arts Center is only open beginning one hour prior to ticketed events scheduled in the Performing Arts Center.

General admission, student, staff and senior tickets may be purchased by phone, internet* or in person. Harper students and staff must pick up their tickets in person and show their current HarperCard to receive their tickets.

Cash, Check, Visa, MasterCard and Discover are accepted at the Box Office for ticket purchases.

Programs may sell out in advance. It is recommended, whenever possible, to purchase tickets ahead of time. Harper students with a current HarperCard may purchase a limit of two tickets at the student discount price. Harper Faculty and Staff may also purchase a limit of two tickets at the Faculty/Staff discount price.
*Special Note: Internet ticket purchases are subject to additional service fees. No extra charges apply to ticket purchases made in person or by phone. Event subject matter, times, dates, venues and Box Office hours are subject to change. Any changes or additions to featured programs will be announced through College publications and the news media. Call the Box Office at 847.925.6100 for the latest updates.

## Child Learning Center

The Early Childhood Education Program offers:

- An extended care preschool program for children of Harper students, faculty, staff and the community at large. This program offers full-day and half-day child care for children 3 through 6 years of age and operates Monday-Friday from 7:30 a.m. - 5:30 p.m. Children may be enrolled for one day or up to five days a week. For more information on fees or registration costs, call 847.925.6262. You may also visit us at harpercollege.edu.
- A preschool program for children of students, faculty, staff and the community at large who are 3 through 6 years of age. The preschool has set sessions which coincide with Harper's academic calendar. For information about the preschool, call 847.925.6262.

All programs are licensed by the Illinois Department of Children and Family Services and accredited by the National Association for the Education of Young Children.

## Computer Labs

More than 1,700 computers provide access to the Internet, the Harper Web site and program-specific software.

## Open Labs

Harper has three large open labs available seven days a week that are staffed to assist students with logging on and off, accessing specific programs and printing their work. Labs are open to all currently enrolled Harper students. Distance learning students are welcome to use these labs.

The Main Campus Open Computer Labs contain an accessible workstation with specialized software for individuals with disabilities. These workstations have a sign posted to note that these machines will be given priority to these individuals.

The current lab hours can be found on the Student Services tab under the Computer Labs/Student Services link.

All Machines in the Open Labs have:
Hardware: workstations and printers
Software: OS Windows 7, Microsoft Office 2010 (Word, Excel, PowerPoint, Access), Acrobat Reader 10, Quicktime 7.x, Flash and Shockwave Players, Windows Media Player 11, McAfee VirusScan 8.8

As new releases become available, packages will be upgraded as appropriate to the academic calendar.

In addition, each of the three open labs have program specific software. Your faculty can direct you to the appropriate lab for the course in which you are enrolled.

- Cyber Cafes Internet only
- William's Web Building L, across from the HarperStore
- Hawk's Nest Student Center, near Violet's Cafe


## Special Purpose Open Labs

Writing Center
Building F, Room F303
847.925.6796

Hours:
Monday-Thursday 8 a.m.- 8 p.m.

Friday, 8: a.m.- 4:30 p.m.
Lab is open to all currently enrolled Harper students seeking assistance with writing. Distance Learning students are welcome to use this lab.

## Allstate Technology Lab

Access and Disability Services
Building D, Room D119
847.925.6266 (Voice)
224.836.5048 (VideoPhone)

Daytime hours vary, check with Access and Disability Services for current hours.

This lab is open to credit and Continuing Education students with a disability who are registered with Access and Disability Services and have appropriate approved accommodations. Lab computers have specialized software and hardware for students to utilize. In addition, the Lab loans assistive technology to qualifying students on a first-come, first-served semester-by-semester basis. Some of the software and equipment include the following:

- Dragon Dictate
- JAWS
- MAGIC
- Kurzweil
- Alpha Smart keyboards, voice recorders, and other assistive devices.


## Math Lab

Bulding D, Room D105
847.925.6395

## Fall and spring semester hours:

Monday-Thursday: 8 a.m. - 3 p.m. and 5-8 p.m.
Friday: 8 a.m.- 12 p.m.

## Summer session:

Monday and Wednesday: 4-9 p.m.
Tuesday and Thursday: 8 a.m. - 1 p.m.
Friday: 8 a.m. - 12 p.m.

## Dining Services

The Harper Dining Services offers breakfast and lunch Monday through Friday in the Cockrell Dining Hall located in Building A. Dining Hall operating hours during the regular school year are as follows:

Monday through Thursday: 7:30 a.m.-5 p.m.
Friday: 7:30 a.m.-2:30 p.m.
(Service hours subject to change without notice.)
There are snack bars located in Avante', Building L and Building $J$ which are open Monday through Thursday from 8 a.m.-8 p.m. Avante' is open on Fridays 8 a.m.-1:30 p.m. Hours will vary when classes are not in session and during summer. Dining Services also maintains food and vending machines located in buildings throughout the campus. Food purchases can be paid for with cash, MasterCard, Visa or Discover. Dining Services also provides on-campus catering for approved student activities and special events. For information call 847.925.6253.

## Fitness Center

The Harper College Fitness Center offers a variety of strength training and cardiovascular equipment at very affordable prices. Students are eligible for discounted rates. The Fitness Center is located in the Wellness and Sports Center, M162. Call 847.925.6919 for details.

## HarperStore

The HarperStore, located in Building L, is a resource for required textbooks, supplies, study aids, dictionaries and other items. It is recommended that you bring your class schedule with you so the necessary textbooks can be located easily.

## Textbook Rental/eBooks

The HarperStore has rental textbooks and eBooks available for many titles which can save you up to $50 \%$ off the price of a new textbook. Inquire with the customer service counter to find out which titles are available and specifics of the program.

The HarperStore offers a pre-paid pick-up and home delivery service for your convenience. Orders can be placed with the HarperStore Web site at harperstore.com.

Cash, checks, MasterCard, Visa, American Express or Discover Card can be used to pay for purchases. If you are paying by check or credit card, you must have a picture ID. If you plan to use financial aid or have a scholarship to purchase books, arrangements should be made with the financial aid office before making any purchases.

## HarperStore Refund Guidelines

## Save Your Receipts

- Textbooks in resalable condition may be refunded with a receipt within seven (7) calendar days from the start of classes or within two (2) days of purchase thereafter, including during the summer term.
- Textbooks may be returned for dropped courses with proof of drop/add up to thirty (30) days from the start of classes or until the end of the official drop/add period, whichever comes first.
- Textbooks purchases during the last week of classes or during exams may be sold back under the book buyback policy.
- Non-textook items in resalable condition may be refunded or exchanged at any time with the original receipt.
- Computer software may be returned if it is unopened and shrink-wrapped.


## Textbook Buyback

The HarperStore shall purchase used textbooks adopted for the next academic term sufficient to meet course requirements at not less than $50 \%$ of the student's purchase price. HarperStore shall purchase used books not adopted for the next academic term or in excess of course requirements at national wholesale prices. All prices will be rounded to the nearest quarter.

For more information, visit HarperStoreHarperStore.com_blank

## Health and Psychological Services and Wellness Programs

Academic achievement and the completion of educational goals are largely dependent upon the physical and psychological well-being of the student. The goal of Health and Psychological

Services, located in the Student Center, Building A, Room A364, is to provide care from a holistic perspective that enhances personal health and wellness, promotes academic success and enables students to realize career aspirations. The Health and Psychological Services team consists of an adult nurse practitioner, consultant physician, registered nurses, licensed clinical psychologist, and doctoral level psychologists in-training. The nurse practitioner, physician and psychological services team are available to diagnose, treat and refer Harper College students as necessary.

Health care services offered include physical examinations, vaccinations, tests for strep, mono, pregnancy, as well as communicable and sexually transmitted diseases. Psychological services include assessment and referral to appropriate on or off campus resources, brief therapy, crisis interventions, and wellness programming. Psychological services are available to students currently enrolled in six or more credit or ESL hours in fall or spring semesters, or in three or more credit or ESL hours in summer session.

Students are encouraged to use Health and Psychological Services which are confidential and free or low cost. A valid College I.D. card is required to access services.

Health and Psychological Services staff plan and coordinate a variety of health and wellness activities to meet identified student and employee needs regarding physical and mental health. These include a flu vaccine program, cholesterol and other health screenings, national awareness and prevention campaigns such as Collegiate Alcohol Awareness and Sexual Awareness weeks and compliance with the Drug-Free Schools Act. Various healthrelated programs and speakers are presented every semester offering students and staff the opportunity for lifestyle enrichment and access to self-help and community resources.

For further information, call 847.925.6268.

## ID Cards

All credit students (i.e., those who pay an activity fee) are entitled to a photo ID Card, known as the HarperCard. The first card will be issued free of charge. The HarperCard is an all-purpose card that can be used for identification, admittance to College events and open recreation, discounts at the Box Office, as a Library Card, as a copy card for campus photocopy machines, to print documents at print stations and for many other campus services. Check at the ID Card Office about fees for lost, stolen or damaged cards as well as for cards for Continuing Education Students.

Students may get their HarperCard at the ID Card Office in Building J, Room 135. The ID Card office is open MondayThursday, 8 a.m.-7 p.m. and Friday, 8 a.m.-4:30 p.m. Questions can be directed to 847.925.6000, extension CARD (2273).

## Police Department

The Harper College Police Department is a 24 -hour law enforcement agency responsible for the safety and security of the Harper College community. Responsibilities of the department include enforcement of college rules and regulations, village and county ordinances and state and federal laws. In addition, the department provides traffic control, grounds and building patrol, emergency first aid, CPR and AED, jump starts and vehicle key retrieval.

Important information concerning the College's emergency preparedness for crisis and steps you can take to enhance your safety and security may be viewed at: http:// goforward.harpercollege.edu/emergency/procedures.php

Harper College Police Department, by law, is the central repository for all Lost and Found items recovered and stored at the College. If you have found an item, regardless of value, it must be turned over to the Harper College Police Department for safekeeping. If you have lost an item, inquire about it with Harper College Police Department.

Harper College police officers have the same authority as municipal and state officers as well as sheriff's deputies. These duties include the authority to detain people, conduct investigations, gather evidence and make arrests. As such, all crimes and motor vehicle accidents that occur on campus should be immediately reported to the Harper College Police Department.

Emergency call boxes are strategically located throughout campus parking lots and by inner campus sidewalks. Locations can be identified during hours of darkness by noting the blue lights on parking lot light standards and sidewalk light standards (inner campus). The call boxes are immediately below these blue lights. Pushing the red emergency button puts you in direct contact with the HCPD Operations Center dispatcher.

For emergencies, contact Harper College Police Department at 911. For non-emergency information call 847.925.6330.

## Rita and John Canning Women's Program

The Women's Program provides services and programming to assist women in achieving their educational and/or employment goals. Grant programs allow for such services as career, personal and academic counseling; job readiness preparation; information about and referral to appropriate resources; and limited assistance with tuition and book expenses for single parents, displaced homemakers, nontraditional career seekers, and individuals with limited English proficiency.

The Women's Program is located in the Student Center, Building A, Room A347.

## Student Involvement

A comprehensive activities program is available which includes a college/community program series of lectures, concerts, films, art exhibits and theater productions sponsored by a student-faculty Cultural Arts Committee; social programs of concerts, films, special events and other programs of interest sponsored by the student Campus Activities Board; student publications including the College newspaper, The Harbinger; and a literary and visual arts publication, Point of View; Pom Pon/Dance Company; an FM student radio station, WHCM; Honors Society; Phi Theta Kappa; theater and speech team activities; free legal and financial advice; personal financial guidance; student government; intramurals; and a program for student leadership development. These programs are financed by student activity fees.

Numerous clubs are active, and students are encouraged to begin other organizations within the established guidelines. Among the clubs recognized are: ADS Success Club, ASL Club (American Sign Language Club), Astronomy Club, Biology Club, Black Student Union, Buddhist Interest Group, Business Club, Campus Crusade for Christ, Deaf Club, Ethics Bowl, Film Club, Food Service Club, Future Education Association, Harper Association of Mathematics, Harper College Chapter of the SCI-FI Fantasy and Gaming Club, Harper College Clay Guild, Harper College Dance

Company, Harper Environmental Club, Harper Pride, Harper's
Bizarre Fashion Club, Human Services Club, Indian Pakistani
Student Association, International Students' Club, German Club,
Graphic Art Design Club, Kappa Beta Delta, Lambda Epsilon Chi, Latinos Unidos, Literature and Creative Writing, Math Club, Model UN, Multicultural Advisory Board, MSA (Muslim Student Association), Nursing Club, Political Scholars, Rad Tech Club, Society of Engineers, Spirit Crew, Theatre Club, Think Tank, Veterans Association, and the Wm. Rainey Harper Amateur Radio Club.

The Student Involvement office is located in the Student Center, Building A, Room A336. Additional information can be found at harpercollege.edu.

## Harper College Student Government

The Student Government is the student organization through which students are represented to the Board of Trustees, administration and faculty. Members are responsible for recommending the student activities budget which provides for a variety of social, cultural and recreational activities as well as special programs and services. They also act upon student concerns, appoint students to College committees, review and recommend changes in College policy, recognize student clubs and organizations and in general promote student welfare.

## Student Handbook

- College Credit Programs and Requirements
- College Policies
- Federal and State Laws


## College Policies

- Academic Honesty Policy
- Bulletin Boards and Publicity
- Communicable Diseases Policy
- Discrimination Complaint Procedure
- Distribution of Literature and Use of Tables or Display Space
- Guide to Gender Based and Sexual Misconduct
- Locker General Use Statement
- Non-Solicitation Policy
- Policy Regarding Sexual Offenses
- Smoking Policy
- Speakers Policy
- Student Activities Awards Programs
- The Student Center
- Student Code of Conduct and Dispute Resolution Procedures
- Student Dress Code
- Substance Abuse Policy
- Technology Resources
- Workplace Violence Policy


## Academic Honesty Policy

Harper College is strongly committed to the promotion of high ethical standards. Such standards can best be accomplished in an environment where honesty and integrity are practiced.

For this reason the College strongly condemns academic dishonesty. Academic dishonesty includes cheating, plagiarism or other improper appropriation of another's work as one's own and falsifying records to advance one's academic standing.

Cheating includes but is not limited to copying answers, stealing and/or disseminating tests or answer keys, using someone else's data in preparation of reports or assignments and assisting others in such practices.

Plagiarism involves the presentation of another person's words, ideas, or work as one's own. It includes but it is not limited to copying any material, (written or non-written) without proper acknowledgement of its source, and paraphrasing another's work or ideas without proper acknowledgement.

Falsifying records includes but is not limited to falsifying or improperly altering College records and documents, or knowingly supplying false or misleading information to others (e.g. the College, other educational institutions or prospective employers).

Any form of academic dishonesty as defined by the faculty member or department is a serious offense requiring disciplinary measures. Discipline for academic dishonesty involving a specific course shall be first determined by the instructor of the course and may include failure of the specific assignment, project or test or failure of the course. The student may appeal the instructor's decision in accordance with the College's Student Academic Complaint Procedures. In cases of academic dishonesty the faculty-assigned grade supersedes a student-initiated withdrawal. In cases where disciplinary measures beyond course failure may be deemed appropriate or in regards to dishonesty that is not related to a specific course, the student may be disciplined in accordance with the Student Conduct Policy.

## Alcohol and Substance Abuse Policy and Regulations

It is the policy of Harper College to provide a drug and alcohol free environment and work place as defined by the Drug Free Workplace Act of 1988 and the Safe and Drug Free Schools and Communities Act of 1994.

Harper College prohibits the unlawful possession, use, distribution, dispensing and manufacture of illicit drugs and alcohol by students and employees on its property or as part of any College activity.

Students who violate this policy will be governed by the College's Student Conduct Code and subject to disciplinary action up to and including suspension, expulsion and referral for prosecution. Employees who violate this policy will be subject to disciplinary action in accordance with their appropriate employee group regulations up to and including suspension, termination of employment and referral for prosecution.

Students, employees and visitors are subject to local, state and federal laws. Criminal penalties for such violations may include assigned community service, fines and imprisonment.

In addition, property used in connection with illegal drugs may be confiscated, Federal student loans, grants and contracts may be denied, and driving privileges may be revoked.

In addition, all employees directly engaged in performance of work pursuant to the provisions of a federal grant or federal contract in excess of $\$ 25,000$ and students who are Pell Grant recipients must notify the College within five days of any criminal drug statute conviction for a violation occurring on or off College premises while conducting College business or activities. The College shall, within 10 days of receiving such notice, inform the federal agency providing the grant of such conviction.

Within 30 days following such notification of conviction, appropriate disciplinary action shall be taken against such employee or student and/or the employee or student may be required, at his or her own expense, to participate satisfactorily in a substance abuse assistance or rehabilitation program. With the intent to provide a drug and alcohol free educational and work environment, Harper College is
committed to providing proactive drug and alcohol abuse prevention programs, confidential counseling, intervention and referral for its students and employees. An Employee Assistance Program is available for employees and their immediate family members.

Harper College shall conduct bi-annual reviews of the drug and alcohol abuse programs to determine their effectiveness and implement appropriate changes.

## Health Risks of Alcohol and Drug Consumption

The consumption of alcohol and drugs may have serious health risks and changes in behavior including: impaired judgment and coordination required to drive a car safely, increased incidences of a variety of aggressive acts, impairment in higher mental functions, risk of dependence, and in high doses, respiratory depression and death. Long-term use can lead to permanent damage to vital organs. Mothers who drink during pregnancy may give birth to infants with fetal alcohol syndrome.

## Classification: ALCOHOL <br> Drug Name: Ethanol <br> Common or Brand: Beer, Wine, Distilled Liquor <br> Physical Dependence: High <br> Potential Psychological: High <br> Acute Effects: Lowered Inhibitions, Impaired judgment, Loss of motor skills, Coordination, Slurred speech <br> Health Risks and Effects of Long-term Use: Hypertension, Liver damage, Cardio-vascular disease, Toxic psychosis, Neurologic damage, Addiction with severe withdrawal Overdose Effects: Coma, Possible death <br> Classification: NARCOTICS <br> Drug Name:Opium, Morphine, Codeine, Heroin, Meperidine <br> Common or Brand: Paregoric, Dover S Power, Morphine, <br> Tylenol w/ Codeine, Demerol, Pethadol, Dilaudid, Lentine, <br> Percodan <br> Physical Dependence: High <br> Potential Psychological: High <br> Acute Effects: Euphoria, Drowsiness, Respiratory depression, Constricted pupils, Nausea, Pain relief Health Risks and Effects of Long-term Use: Loss of appetite, Constipation, Risk of AIDS \& Hepatitis from I.V. drug use <br> Overdose Effects: Shallow respirations, Clammy skin, Convulsions, Coma, Possible death, may be toxic if mixed with alcohol <br> Classification: DEPRESSANTS <br> Drug Name: Chloral Hydrate Barbiturate Gamma Hydroxybutric Acid Gamma Butyrolactone Glutethemide Ketamine Methaqualone Tranquilizers <br> Common or Brand: Notec, Somnos Nembutal Phonobarbitol Seconal, Tuinol Date Rape Drug, Liquid Ecstacy, Cherrymeth GBL Doriden Special K Parest, Sopor Quaalude Xanax, Dalmane, Placidyl, Valmid <br> Physical Dependence: Moderate High High Moderate- High Unknown High Unknown High Moderate <br> Potential Psychological: Moderate High High High Unknown High Unknown High High <br> Acute Effects: Slurred speech, Disorientation, Drunken behavior without the odor of Alcohol, Euphoria, Lowered Inhibitions, Loss of motor skills, Blackouts, Relaxation, Depression, Hallucinations <br> Health Risks and Effects of Long-term Use: Addiction with Withdrawal, Toxic psychosis, Weak rapid pulse, Hallucinations, Nausea, Anxiety, Tremors, Dizziness, Loss of peripheral vision <br> Overdose Effects: Shallow respiration, Cold clammy skin, Blackout, Coma, Possible death may be toxic if mixed with alcohol

## Classification: STIMULANTS

Drug Name: Cocaine, Amphetamine, Methyl-phenidate, Methylenedioxy, methamph-etamine
Common or Brand: Cocaine Desoxyn, Bennies, Adderall, Dexedrine Ritalin Ecstasy, MDMA
Physical Dependence: Possible Possible Low
Potential Psychological: High High High
Acute Effects: Feeling of well- being, Excitation, Euphoria, Increased alertness, Increased blood pressure \& pulse, Insomnia, Appetite Loss
Health Risks and Effects of Long-term Use: Delusions, Hallucinations (Toxic Psychosis), Possible organ/tissue damage
Overdose Effects: Agitation, Temperature Increase, Hallucinations, Convulsions, Heart Attack, Stroke High blood pressure, Loss of consciousness, Seizures

## Classification: HALLUCINO-GENICS

Drug Name: LSD, Mescaline, Psilocybin, PCP
Common or Brand: Acid, Lysergic Acid, Peyote, Peyote Buttons, Mescalitor Magic Mushrooms, Schrooms Angel Dust, Crystal
Physical Dependence: Low Low Low Unknown
Potential Psychological: Unknown Unknown Unknown Unknown
Acute Effects: Dilated pupils, Increased blood pressure, \& pulse, Delusions, Hallucinations, Distorted perception of time, space and reality
Health Risks and Effects of Long-term Use: Hallucinations, especially LSD, may intensify, Existing psychosis, Possible violent behavior
Overdose Effects: Intense, bad trips, Psychosis, Possible sudden death

Classification: INHALANTS
Drug Name: Airplane Glue, Lighter Fluid, Spray Paints, Paint Thinner, Gasoline, Poppers
Common or Brand: Toluene, Naphalene, Petroleum
Distillate, Amyl/Butyl Nitrate
Physical Dependence: Unknown Unknown Unknown
Potential Psychological: Unknown Unknown Unknown
Acute Effects: Slurred speech, Drunken behavior, Impaired judgment, Poor coordination
Health Risks and Effects of Long-term Use: Hallucinations, Possible damage to bone marrow, lungs, kidneys, liver, heart, brain, eyes
Overdose Effects: Loss of consciousness, Coma, Possible toxic reaction, Possible sudden death

Classification: CANNABIS
Drug Name: Marijuana, Hashish, Hash oil Common or Brand: Grass, Pot, Weed, Dope, Hash Physical Dependence: Low
Potential Psychological: Moderate
Acute Effects: Tachycardia, Reddened eyes, Euphoria,
Profound humor, Altered time/space perception, Short term memory loss, Increased appetite
Health Risks and Effects of Long-term Use: Cardiovascular Damage as with smoking tobacco
Overdose Effects: Insomnia, Hyperactivity, Panic attacks,
Paranoia, Possible toxic reaction if treated with other chemicals

Classification: ТОBACCO
Drug Name: Nicotine
Common or Brand: Cigarettes, Cigars
Physical Dependence: Moderate
Potential Psychological: High
Acute Effects: Relaxation, Stimulation
Health Risks and Effects of Long-term Use:
Cardiovascular disease, Respiratory illness
Overdose Effects: Possible death at very high dosage levels
Adapted from Controlled Substances - Uses \& Effects. N.d. pct.eduWeb. 18 Dec 2012.
<www.pct.edu/studentPolicy/docs/drugchart.pdf>.
Federal and State Legal Sanctions for the Unlawful Possession or Distribution of Illicit

## Drugs and Alcohol

## Federal Drug Laws

The possession, use, or distribution of illicit drugs is prohibited by federal law. Strict penalties are enforced for drug convictions, including mandatory prison terms for many offenses. The following information, although not complete, is an overview of
federal penalties for first convictions. All penalties are doubled for any subsequent drug conviction.

## Federal Drug Trafficking Penalties (21 USC 841)

Penalties for federal drug trafficking convictions vary according to the quantity of the controlled substance involved in the transaction. The following list is a sample of the range and severity of federal penalties imposed for first convictions. Penalties for subsequent convictions are twice as severe.

If death or serious bodily injury result from the use of a controlled substance which has been illegally distributed, the person convicted on federal charges of distributing the substance faces mandatory life sentence and fines ranging up to $\$ 8$ million.

Persons convicted on federal charges of drug trafficking within 1,000 feet of a University (21 USC 860) face penalties of prison terms and fines which are twice as high as the regular penalties for the offense, with a mandatory prison sentence of at least 1 year.

| Drug/Substance | Amount | Penalty - 1 st Conviction |
| :---: | :---: | :---: |
| Barbiturates | Any amount | Up to 5 years prison. Fine up to \$250,000 |
| Cocaine | 5 kgs . or more | Not less than 10 years prison, not more than life. Fine up to \$4 million |
| Less than 100 grams | 10-63 months prison. Fine up to \$1 million |  |
| Crack Cocaine | 50 grams or more | Not less than 10 years prison, not more than life. Fine up to \$4 million |
| 5-49 grams | Not less than 5 years prison, not more than 40 years. Fine up to \$2 million |  |
| 5 grams or less | 10-63 months prison. Fine up to \$1 million |  |
| Ecstasy | Any amount | Up to 20 years imprisonment. <br> Fine up to \$1 <br> million. 3 years <br> of supervised releases (following prison) |
| GHB | Any amount | Up to 20 years imprisonment. <br> Fine up to $\$ 1$ million. 3 years of supervised releases (following prison) |
| Hashish | 10-100 kg | Up to 20 years imprisonment. Fine up to $\$ 1$ million. |


| Drug/Substance | Amount | Penalty - 1st Conviction |
| :---: | :---: | :---: |
| 10 kg or less | Up to 5 years imprisonment. Fine up to \$250,000 |  |
| Hash Oil | 1-100 kg | Up to 20 years imprisonment. Fine up to $\$ 1$ million. |
| 1 kg or less | Up to 5 years imprisonment. Fine up to \$250,000 |  |
| Heroin | 1 kg or more | Not less than 10 years prison, not more than life. Fine up to \$4 million |
| 100-999 grams | Not less than 5 years prison, not more than 40 years. Fine up to \$2 million |  |
| 100 gms or less | 10-63 months prison. Fine up to \$1 million |  |
| Ketamine | Any amount | Up to 5 years imprisonment. <br> Fine up to $\$ 250,000.2$ <br> years supervised release |
| LSD | 10 grams or more | Not less than 10 years prison, not more than life. Fine up to \$4 million |
| 1-10 grams | Not less than 5 years prison, not more than 40 years. Fine up to \$2 million |  |
| Marijuana | 1000 kg or more | Not less than 10 years prison, not more than life. Fine up to \$4 million |
| $100-999 \mathrm{~kg}$ | Not less than 5 years prison, not more than 40 years. Fine up to $\$ 2$ million |  |
| $50-99 \mathrm{~kg}$ | Up to 20 years imprisonment. Fine up to $\$ 1$ million |  |
| 50 kg or less | Up to 5 years imprisonment. Fine up to \$250,000 |  |


| Drug/Substance | Amount | Penalty - 1st Conviction |
| :---: | :---: | :---: |
| Methamphetamine | 50 grams or more | Not less than 10 years prison, not more than life. Fine up to \$4 million |
| 10-49 grams | Not less than 5 years prison, not more than 40 years. Fine up to \$2 million |  |
| 10 grams or less | 10-21 months prison. Fine up to \$1 million |  |
| PCP | 100 grams or more | Not less than 10 years prison, not more than life. Fine up to \$4 million |
| 10-99 grams | Not less than 5 years prison, not more than 40 years. Fine up to \$2 million |  |
| 10 grams or less | 10-21 months prison. Fine up to $\$ 1$ million |  |
| Rohypnol | 1 gram or more | Up to 20 years imprisonment. Fine up to $\$ 1$ million |
| less than 30 mgs | Up to 5 years imprisonment. Fine up to \$250,000 |  |

## Federal Drug Possession Penalties (21 USC 844)

Persons convicted on Federal charges of possessing any controlled substance face penalties of up to 1 year in prison and a mandatory fine of no less than $\$ 1,000$ up to a maximum of $\$ 100,000$. Second convictions are punishable by not less than 15 days but not more than 2 years in prison and a minimum fine of $\$ 2,500$. Subsequent convictions are punishable by not less than 90 days but not more than 3 years in prison and a minimum fine of $\$ 5,000$. Possession of drug paraphernalia is punishable by a minimum fine of $\$ 750$.

## Forfeiture of Personal Property and Real Estate (21 USC 853)

Any person convicted of a federal drug offense punishable by more than one year in prison shall forfeit to the United States any personal or real property related to the violation, including houses, cars, and other personal belongings. A warrant of seizure is issued and property is seized at the time an individual is arrested on charges that may result in forfeiture.

## Denial of Federal Aid (20 USC 1091)

Under the Higher Education Act of 1998, students convicted under federal or state law for the sale or possession of drugs will have their federal financial aid eligibility suspended. This includes all federal grants, loans, federal work study programs, and more. Students convicted of drug possession will be ineligible for one year from the date of the conviction of the first offense, two years
for the second offense, and indefinitely for the third offense. Students convicted of selling drugs will be ineligible for two years from the date of the first conviction, and indefinitely for the second offense. Those who lose eligibility can regain eligibility by successfully completing an approved drug rehabilitation program

## State Drug laws

Illinois Sanctions for Driving Under the Influence (625 Illinois Compiled Statutes 5/11-501)

Sanctions for driving under the influence of alcohol or drugs may include suspension or revocation of driving privileges, community service, fines, and imprisonment.

Illinois Statutory Provisions for Violation of Alcohol Control Statutes (235 Illinois Complied Statutes 5/6-16)

Sanctions for violating the Illinois Alcohol Control Statutes may include suspension of driving privileges, fines, community service, and imprisonment for up to one year.

Illinois Statutory Provisions for Illegal Drug Possession, Manufacture, or Delivery


|  | or hits |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Petazocin 30 grams or more | 10 to 29 <br> grams | 10 grams or less | 30 <br> grams or more | less <br> than 30 grams |
| Methaqua30ne grams or more | 10 to 29 grams | 10 grams or less | 30 grams or more | less <br> than <br> 30 <br> grams |
| Phencycliaine grams or more | 10 to 29 grams | 30 <br> grams <br> or less | 30 <br> grams or more | less <br> than 30 <br> grams |
| Ketamine30 grams or more | 11 to 30 grams | less <br> than 10 grams | 30 <br> grams or more | less <br> than 30 <br> grams |
| GHB 200 <br> grams or more | 50 to 200 grams | less <br> than 50 <br> grams | 200 <br> grams or more | less <br> than <br> 200 <br> grams |
| Ecstasy 200 <br> grams <br> or <br> more | 50 to 199 grams | 50 <br> grams <br> or less | 200 <br> grams or more | less than 200 grams |

Note: Second Offense - double jail sentence and fine. This chart gives examples of the penalties which may be imposed on individuals convicted of drug possession, manufacturing, or delivery. The circumstances of the case and other factors affect whether or not these are the actual penalties imposed.

## Marijuana Sale or Delivery ( 720 Illinois Compiled Statutes 550/5)

Class B Misdemeanor: 2.5 grams or less, $\$ 500$ fine and/or six months in jail Class A Misdemeanor: 2.5-10 grams or less, \$1,000 fine and/or one year in jail Class 4 Felony: between 10-30 grams, $1-3$ years in jail and/or \$10,000 fine

Class 3 Felony: between 30-500 grams, 2-5 years in jail and/or fine not to exceed $\$ 50,000$

Class 2 Felony: 500 or more grams, 3-7 years in jail and/or fine not to exceed $\$ 100,000$

Marijuana Possession (720 ILCS 550/4)
Class C Misdemeanor: 2.5 grams or less, $\$ 500$ fine and/or thirty days in jail

Class B Misdemeanor: between 2.5-10 grams, $\$ 500$ fine and/or six months in jail Class A Misdemeanor: between 10-30 grams, \$1,000 fine and/or one year in jail Class 4 Felony: between 30-500 grams, 1-3 years in jail and/or \$10,000 fine

Class 3 Felony: over 500 grams, 2-5 years in jail and/or fine not to exceed \$50,000

## Resources

Following is a list of resources available to employees and students for drug and alcohol treatment:

| Name | Phone |
| :--- | :--- |
| Kenneth Young Center (Elk <br> Grove Village) | (847) 524-8800 |


| Name | Phone |
| :--- | :--- |
| Alexian Brothers - Northwest <br> Mental Health Clinic <br> (Hoffman Estates) | (847) 952-7460 |
| Alcoholics Anonymous - | (847) 359-3311 |
| Dist. 21 Answering Service <br> (Palatine) |  |
| Harper College Employee <br> Assistance Program | (800) 327-5071 |

## Student Involvement Awards Programs

The annual Student Awards Ceremony recognizes outstanding contributions by students in all areas of the Student Involvement program. Nominations are submitted by individual organizations and faculty advisors, generally in March. The students are honored at an awards ceremony sponsored by the College in May and given awards in the form of plaques, special awards or certificates depending upon the particular level of activity.

Student Service Awards reimburse full (up to 12 credit hours) or half-tuition (up to 6 credit hours) for students who have made outstanding contributions to student involvement. These awards are granted for one semester. Since the budget is limited, only a specific number of students in each club are eligible for consideration. Club and organization officers and members may be nominated by the advisor and/or other students, based on their performance, position, responsibility, leadership, length of service and involvement in Harper's student leadership program. Only students who have served in their position for the entire semester are eligible for consideration. Evidence of significant contributions must be documented in the recommendation.

More information on these award programs is available in the Student Involvement office.

## Bulletin Boards and Publicity

Announcement of College events can be found on:

- print event listings,
- the online Events Calendar (harpercollege.edu);
- the Algonquin Road marquee;
- Harper Vision, the closed circuit television monitors; and
- bulletin boards around the campus. Publicity must be approved and/or stamped by the Student Involvement office and may be hung or distributed only in designated locations according to posting guidelines. Recommended size is 8.5\# x 11\# tall, but larger posters will be allowed if space is available. The name of the organization sponsoring an event should be clearly visible on all publicity material as well as the Harper College name or logo. A poster service is available to student clubs and organizations through the Student Involvement office, Student Center, Building A, Room A336. A three to four week lead time is requested for design and the campus posting. Generally, posters will be displayed for a period not to exceed three weeks. Exceptions to these regulations may be requested through the Student Involvement office.

If space allows, bulletin boards may also be used for announcements of events by non-Harper not-for-profit organizations; contact the Student Involvement office at 847.925.6242 for guidance. Only the two "Open Access" bulletin boards may be used to announce non-Harper for-profit events: one is in the Student Center, Building A, near the Registrar's

Office (on the west side of the hallway); the other is in Building J, near J Theatre (across from the vending machines).

In addition, both on-campus and off-campus groups wishing to advertise should contact both WHCM Radio 88.3 FM and The Harbinger, campus newspaper, for rates to reach customers through these student-run venues.

For further information, please contact the Student Involvement office. Building A, Room A336. 847.925.6242

## The Student Center

Many of Harper's lectures, concerts, informal discussions, meetings, conferences and other activities are held in the Student Center. Its facilities include The Hawks Nest (Cyber Cafe), Cockrell Dining Hall, two TV areas, lounges, meeting rooms and offices for student government, clubs and organizations, student publications, student development and health services. The common areas of campus are subject to general time, place, and manner guidelines.

To insure efficient use of the facilities, the following building policies have been established:

- Playing cards or table games, are not permitted in the Student Center dining hall between 10:30 a.m. and 1:30 p.m. The second floor lounge and third floor game room may be used for these activities at any time.
- Students are expected to be respectful of others who are using the facility. Any person or group causing a significant disruption to others may be required to leave and may be subject to disciplinary action.
- Regulations governing the use of the third floor of the Student Center are posted in that area.
- Programs are occasionally held in the Student Center that may require the relocation of students from one area to another. In such cases, regulations will be posted or announcements will be made indicating the affected area. The fireplace and lounge area may be closed during formally scheduled activities in the lounge.


## Student Code of Conduct and Dispute Resolution Procedures

## I. INTRODUCTION

The core values of William Rainey Harper College are Integrity, Respect, Excellence, and Collaboration. These values are the hallmark of the College and will be protected vigorously. When students choose to attend Harper College, they accept the rights and responsibilities of membership in the College's academic and social community. Each person has the right and ability to make personal decisions about his or her own conduct. Just as importantly, each person has the responsibility to live with the consequences of his or her decision-making. Students have rights under the United States Constitution which may be exercised in the College, as in other public institutions. The law recognizes that these rights are subject to restraints that may be imposed because of the College's role and function. It is the policy of the Board of Trustees of William Rainey Harper College to respect the properly exercised rights of the students.

The Student Code of Conduct describes misconduct that is inconsistent with the essential values of Harper College. It lists procedures to respond to such behaviors, and it provides for sanctions that are intended to educate and to safeguard members
of the College community. If you have any questions about this Code, please contact the Office of the Dean of Student Affairs (M219, 847.925.6846).

The term "school days" as used in this Code means those weekdays (Monday through Friday) when classes are in session.

For the purposes of this Code, a "student" is defined as an individual who applies for admission and who is accepted to register for courses (as indicated by being assigned a Harper ID number). The College may address allegations of a student's misconduct through the Code when the alleged violation occurs within two years after any of the following: application for admission, attempt to register for or attend one or more courses, or if the student is under sanction(s); so long as the College has not academically or disciplinarily permanently separated the student from the College. This may extend to incidents that occur during breaks within or between semesters of enrollment, as well as between the time of application to the College and registration or participation in courses.

The student conduct process may occur simultaneously, prior to, or following any criminal, employment, or other proceeding. A student charged with violating the Code of Conduct may not avoid the conduct process by withdrawing from the College. Student conduct proceedings may continue without the student's participation, and/or a hold may be placed on the student's record until the matter is resolved.

Individuals enrolled solely as Continuing Education students are expected to uphold the standards of behavior outlined in this Code. Additional guidelines for behavior may be provided by Continuing Education. Individuals who violate these standards are subject to action at the discretion of the Dean of Continuing Education or his/her designee. Such action may include restricting and/or dismissing students from Continuing Education programs or activities.

## II. THE STUDENT CODE OF CONDUCT

## A. Violations of Code

Whenever a student commits or attempts to commit a violation of the Student Code of Conduct as set out below on the College campus, or at an activity, function or event sponsored or supervised by the College, discipline and sanctions may be imposed on the student. Discipline may also be imposed whenever a student commits a violation of this Student Code of Conduct off campus, if the misconduct adversely affects the College community or the pursuit of its educational objectives. Violations of the Student Code of Conduct include but are not limited to:

1. Possession, use or distribution of an illegal or controlled substance, or look-alike drug.
2. Unauthorized and/or illegal possession, use or distribution of any alcoholic beverage.
3. Theft of property or services.
4. Intentional or willful and wanton destruction of property.
5. Assault and/or battery.
6. Conduct which constitutes harassment or abuse that threatens the physical or mental well-being, health or safety of any individual.
7. Gender-based or sexual misconduct. (For definitions and examples, please see the Guide to Gender Based \& Sexual Misconduct.)
8. Possession or use of weapons or explosive devices.
9. Trespassing on College property or other unauthorized use of College property or services.
10. Abuse of College computer, network, or other technology system resources, including unauthorized distribution of copyrighted material including through peerto-peer or "P2P" file sharing and other violations of the Acceptable Use

Guidelines as published in the Student Handbook and updated from time to time on the College website.
11. Academic dishonesty, including cheating, plagiarizing or furnishing false information on such forms as transcripts or applications for admission.
12. Disrupting the peace, the education process or related activity.
13. Failure to comply with the directions of an authorized College employee or representative who is performing his/ her duties.
14. Any conduct that constitutes a violation of the terms of any discipline imposed in accordance with this procedure, or any form of retaliation toward a complainant or any participant in an investigation or conduct process. Retaliation will not be tolerated.
15. Any conduct that constitutes a violation of handbooks, contracts, or behavioral agreements specific to College programs or activities.
16. Any conduct that constitutes a violation of a federal or state law, local ordinance or College rule or regulation.

## B. Determination of Sanctions

In keeping with the essential values of Harper College, sanctions are designed to promote the College's educational mission. Sanctions may also serve to promote safety or to deter students from behavior that harms, harasses, or threatens people or property. Some behavior is so harmful or disruptive to the College community or to the educational process that it may require more serious sanctions, such as removal from specific courses or activities, suspension from Harper College, or expulsion. More than one sanction may be recommended.

## 1. Factors Considered in Determining Sanctions

Although not binding or definitive, the following factors may be considered in determining what sanctions are appropriate in a particular case:

1. The nature of the violation(s).
2. Prior violations and disciplinary history.
3. Mitigating circumstances surrounding the violation.
4. The student's motive or purpose for engaging in the behavior.
5. Sanctions which have been imposed in similar cases in the past.
6. The developmental and educational impact on the student.

## 2. Possible Sanctions

Multiple sanctions may be imposed, including but not limited to one or more of the following:

1. Expulsion: Expel a student from the College, a program, course, or activity on a permanent basis.
2. Suspension: Suspend a student from the College, a program, course or activity for a specified period of time.
3. Prohibition on Re-enrollment: Bar a student from reenrolling in the College, a program, course or activity for a specified or unlimited period of time, if a student withdraws prior to being suspended or expelled.
4. Conditional Enrollment or Re-enrollment: Condition a student's enrollment or re-enrollment on his or her taking or refraining from specific actions.
5. Disciplinary Probation Status: Place a written reprimand in the student's file admonishing him/her about the conduct and warning that further conduct in violation of the Student Code of Conduct may result in additional sanctions.
6. Community and/or College Service: A student may be offered an opportunity to complete a specified number of hours of community and/or College service.
7. Educational Requirements: A provision to complete a specific educational requirement directly related to the
violation committed. The provision will be clearly defined. Such educational requirements may include, but are not limited to, completion of an alcohol education workshop, a diversity awareness workshop, essays, reports, etc.
8. Remedial Action: An agreement between the student and the Office of the Dean of Student Affairs that the student shall pursue specific remedial action.
9. Probation and/or Restrictions: The withdrawal of specified privileges or restrictions on action for a definite period of time (i.e., restriction from entering specific College areas and/or all forms of contact with certain person(s).
10. Restitution: A payment to compensate an injured party for financial harm, in cases involving misconduct such as theft, destruction of property or deception.
11. Reprimand: A formal letter of warning or final warning shall be placed in the student's file.

## III. DISCIPLINARY PROCEDURES FOR RESOLVING ALLEGED VIOLATIONS OF THE STUDENT CODE OF CONDUCT

The College encourages students, faculty, and staff to resolve disputes informally in appropriate cases. Contact the Office of the Dean of Student Affairs to learn more about College-facilitated procedures for informal dispute resolution.

## A. Filing of Complaint

Any person may allege a violation of the Student Code of Conduct by completing a "Student Code of Conduct Referral Form" and submitting it to the Office of the Dean of Student Affairs. The College reserves the right to initiate a student conduct process based on available information, even if a formal complaint has not been received. The complaint shall describe the conduct in question and, if known, the name of the person or persons alleged to have engaged in that conduct. The filing of a complaint assumes that the complainant desires to initiate the inquiry that may result in official disciplinary action against the alleged violator.

## B. Notification of Charges and Preliminary Investigation

Upon receiving a complaint, the Dean of Student Affairs will designate a Resolution Coordinator. The Student Conduct Officer serves as the primary Resolution Coordinator and Hearing Officer for complaints of student misconduct. The Dean of Student Affairs or his/her designee may appoint additional faculty or staff as Resolution Coordinators, Investigators, or Hearing Officers as needed. The Resolution Coordinator will conduct a preliminary investigation of the complaint, inform the student in writing of the charge(s) against him or her (including the specific provision(s) of the Student Code of Conduct alleged to have been violated), and request that the student participate in a mandatory meeting with the Resolution Coordinator. The purposes of the mandatory meeting are to review the charge(s) and possible sanctions in the event that the student is found to have committed the violation(s) in question; to provide the student with an opportunity to respond to the charge(s); and to review discipline and dispute resolution procedures and the student's rights in connection with those procedures. The complainant will also be provided with a comparable meeting opportunity. In any investigation or conduct meeting, a student may request to bring an advisor, whose function is to support and advise the student, NOT to represent him/her.

## C. Interim Action

The Dean of Student Affairs and/or Resolution Coordinator may impose interim action prior to a hearing and/or while an investigation or conduct process is occurring. Such action is reserved for those cases when it is necessary to protect the health, welfare, or safety of a student or of the community, if the
student poses a threat of significant disruption to the educational process and/or the normal operations of the College, or if the student cannot be located and/or does not participate in the conduct process.

In that event, the Resolution Coordinator shall send written notice of such measures to the student at his or her last known address by certified mail, return receipt requested. The notice shall state the specific action imposed and the reason for the action, as well as the instructions to request a hearing on the decision. If a student would like to request a hearing on interim action(s), he/she must submit a request in writing no later than five school days from the date of the letter. A timely hearing will be scheduled with an appropriate hearing body. This proceeding will be limited to determining 1) the reliability of the information regarding the student's alleged behavior and 2) whether the alleged behavior meets the above described criteria for interim action. Failure to request a hearing by the deadline provided constitutes a waiver of a hearing on the interim action, but is not an indication of responsibility.

## D. Possible Outcomes of the Preliminary Investigation

The Resolution Coordinator will determine the most appropriate resolution and/or adjudication format, which include:

## 1. Insufficient Cause

If the Resolution Coordinator finds insufficient cause to charge a student with violating the Student Code of Conduct, and/or if the investigation indicates that the student is not responsible for the violations, he/she will be informed of that in writing by the Resolution Coordinator.

## 2. Mediation

In appropriate cases, the Resolution Coordinator may coordinate a mediation process with the complainant and the accused student. Mediation is a voluntary process in which the parties involved meet with a trained, neutral third party to discuss and design a resolution of the issues in concern. Mediation often results in a written agreement that is drafted and signed by both parties. Mediation will not ordinarily be used to resolve sexual assault complaints.

## 3. Informal Resolution

The student and the Resolution Coordinator may agree to resolve the matter informally. In that event, the student and the Resolution Coordinator shall review the charges and the student shall accept responsibility for the charged violations of the Student Code of Conduct. The student and the Resolution Coordinator may then discuss a plan for resolving the issues involved in the misconduct, which may include agreed-upon sanctions. A student who elects to resolve the charge(s) with the Resolution Coordinator shall, after being informed of his/her rights, sign a written waiver of a formal hearing and a written acceptance of the responsibility and the specified sanction(s) imposed.

## 4. Formal Hearing

The student may proceed to a formal hearing. A campus Resolution Board hearing consists of a hearing before a fiveperson panel, and is held in accordance with the procedures described below. An administrative hearing consists of a hearing with one or more College staff or faculty designated as hearing officers by the Dean of Student Affairs. Examples of situations where administrative hearings may be used include:

- When a student chooses not to participate in a conduct process; or
- When a student and a Resolution Coordinator agree on the finding of responsibility, but do not agree on the
sanction(s), and the recommended sanction(s) does not include suspension or expulsion; or
- When the complainant and the accused student in a sexual misconduct case (or other case of a similarly sensitive nature) both prefer to have the hearing conducted by a smaller hearing body; or
- When a Resolution Board cannot be convened in a timely fashion.


## E. Hearing Procedures

The following outlines the general procedures for hearings. The hearing body/officer reserves the right to adjust procedures as appropriate, depending on the nature of the case. For example, the hearing body or hearing officer may direct that witnesses, other than the complainant and the accused student, be excluded from the hearing room except when they are providing testimony. Likewise, the hearing officer may require the opposing parties to submit cross-examination questions in writing in sensitive cases, to be reviewed and propounded to the witness by the hearing officer.

## 1. Composition of Board; Votes Required for Action

Resolution Board: The Resolution Board will consist of three faculty members and two students designated by the Student Life Committee; provided, however, that in the event that the Student Life Committee is unable to convene because the hearing will occur during summer or due to other circumstances beyond its control, the Chair of the Student Life Committee or the Resolution Coordinator will designate three faculty or staff members and two students to constitute the Resolution Board for the case. An alternate faculty member and an alternate student member will be designated for and shall attend each hearing. The affirmative vote of four members of the Resolution Board shall be required to take action.

Administrative: Administrative hearings may be conducted by one or more faculty/staff members appointed by the Dean of Student Affairs. In most cases, the Student Conduct Officer serves as the hearing officer for administrative hearings unless he/she has been involved in the investigation of the complaint. In cases involving more than one hearing officer, a simple majority vote of the hearing officer(s) shall be required to determine responsibility and sanction(s).

## 2. Notice of Hearing

The Resolution Coordinator will inform the student of the hearing date and time by certified mail, return receipt requested, sent at least five school days prior to the hearing date. The notice will enclose a description of the procedures to be followed at the hearing.

## 3. Conduct of Hearing

All hearings shall be held in closed session.
The Dean of Student Affairs and/or Student Conduct Officer will ensure that all Hearing Officers and Resolution Board members have been trained adequately. Prior to the hearing, members of the Resolution Board shall agree to and sign the "Resolution Board Member Responsibilities" form, and shall designate one member as Chair to facilitate the proceedings.

Resolution Board hearings (excluding deliberations) may be recorded and the audio or a transcription will become part of the appropriate student record(s) and will be subject to campus records policies.

An accused or complaining student may at his or her expense have an attorney or other support person present to advise the student, but the advisor may not otherwise participate in the
hearing. If the student does not attend, but the Office of the Dean of Student Affairs has proof of notice to the student of the hearing, the hearing body may choose either to proceed with the hearing, or to reschedule the hearing to another date. No later than the commencement of the hearing, the charged student shall be provided with a copy of any document which the complainant intends to present as evidence during the complainant's case.

The complainant(s) and the charged student may make brief opening statements to the hearing body.

The complainant(s) shall first present evidence. The charged student may crossexamine any of the complainant's witnesses in attendance and may review any written evidence presented by the complainant(s).

The charged student may then present evidence to refute or otherwise to defend against the charges. The complainant(s) may cross-examine any of the student's witnesses in attendance and may review any written evidence presented by the student. At the close of the charged student's case, the complainant shall have an opportunity to present evidence in rebuttal of the student's presentation.

The hearing body may, at any time, direct questions to the parties or their witnesses. The hearing body may receive all relevant oral or written evidence without regard to the legal rules of evidence, provided such evidence is relevant to a determination of whether the student committed the violation(s) of the Student Code of Conduct with which he or she has been charged, and would be relied upon by reasonably prudent persons in the conduct of their affairs.

If during its preliminary investigation of the complaint, the Office of the Dean of Student Affairs has reasonably determined that a witness to or having knowledge of the alleged violation would be subject to physical or mental harassment or reprisal if requested to testify in person or be identified by name at a hearing before the hearing body, the witness may be asked to prepare a written summary of his or her testimony, including a statement of the reason for the witness' absence from the hearing and a statement verifying that the contents of the summary are true. If an imminent fear of reprisal exists, the Resolution Coordinator may also present a written statement in which the witness' identity has been concealed.

The complainant(s) and the student may make closing statements at the conclusion of the hearing concerning the issues of whether the student has committed the charged violation(s) of the Student Code of Conduct, and if so, what sanctions should be imposed for the misconduct involved.

At the conclusion of the parties' presentations, the hearing body shall declare the hearing closed, shall excuse the parties and their representatives, and shall then deliberate and determine:

1. Whether or not it has been shown, by a preponderance of the evidence, that the student committed the charged violation(s) of the Student Code of Conduct; and
2. If so, what sanctions are appropriate.

After the hearing body determines whether the student has committed the violation(s) charged, it may review the student's academic and disciplinary records only for the limited purpose of determining the appropriate sanction(s).

The hearing body shall render and forward its written findings and decision to the Resolution Coordinator within 10 school days after the end of the hearing.

## F. Notice of Decision

The Resolution Coordinator shall provide to the student written notice of the final resolution of charged violation(s). The written notice shall be sent to the student by certified mail, return receipt requested, or by receipted-for personal delivery, within 10 school days of the student's signature of a written waiver of formal hearing and a meeting with the Resolution Coordinator, or within 10 school days of the Resolution Coordinator's receipt of the written findings and decision of the hearing body. In cases alleging violations under II.A.7: Genderbased or sexual misconduct, the complainant will also receive comparable notice of the relevant finding(s) and related sanction(s).

The written notice to the student shall include:

1. The specific provision of the Student Code of Conduct that was violated;
2. The sanction(s) imposed and the date(s) on or periods for which they are in effect;
3. A statement of the student's right to appeal in writing to the Dean of Student Affairs; and
4. A statement that failure to file a request for such an appeal within the time provided in Part III.G below shall be deemed a waiver of the right to an appeal.

## G. Appeals

An appeal of the result of an administrative or Resolution Board hearing may be filed based on the following grounds:

1. 2. Proper procedures were not followed.
1. 2. There is new relevant evidence not reasonably available at the time of the hearing or the imposition of the sanction(s).
1. 3. The evidence does not clearly support the finding(s).
1. 4. The sanctions are inappropriate relative to the violation.

In cases alleging a violation of II.A.7: Gender-based or sexual misconduct, both the accused student and the complainant have the right to appeal the finding(s) of responsibility and/or sanctions based on the above criteria. An appeal must be submitted in writing to the Dean of Student Affairs within 10 school days of the student's receipt of notice of the decision from the Resolution Coordinator. The Dean of Student Affairs will render and cause a decision to be sent to the student within10 school days after receipt of the appeal. If the results of the review by the Dean of Student Affairs (if applicable) are unsatisfactory to the student, the student may appeal in writing to the Provost within 10 school days after receipt of the Dean of Student Affairs' response. The Provost or designee will cause a written response to be sent to the student within 10 school days after the receipt of the appeal. The decision of the Provost or designee is final.

## IV. DISCIPLINARY RECORDS

The College will maintain disciplinary records as part of the student's education record in accordance with the Family Educational Rights and Privacy Act, 20 U.S.C.S. $\S 1232 \mathrm{~g}$ ("FERPA"). No earlier than seven years following the resolution of any conduct complaints (including fulfillment of any relevant sanctions), a student's conduct record may be purged in accordance with campus procedures if there is no longer an administrative value to the record and the individual's relationship to the campus has ended.

A student's education record, including disciplinary records, will be disclosed only with written consent of the student's parents or the eligible student (in the case of a student 18 years of age or older), except as otherwise allowed pursuant to FERPA and its implementing regulations. Examples of appropriate disclosures of disciplinary records without consent include disclosure of information:

- To other school officials within the institution when there is a legitimate educational interest in the information in order to exercise or complete their responsibilities on behalf of the institution;
- Concerning disciplinary action taken against the student for conduct that poses a significant risk to the safety or wellbeing of that student, other students, or other members of the school community to teachers and school officials, including teachers and school officials in other schools, who have legitimate educational interests in the behavior of the student;
- Regarding any violation of any federal, state, or local law, or of any rule or policy of the institution governing the use or possession of alcohol or controlled substance to a parent or legal guardian of a student if the student is under the age of 21 and the institution determines that the student has committed a disciplinary violation with respect to such use or possession; and
- To complainants in cases alleging violations of II.A.7: Gender-based or sexual misconduct. The complainant has a right to be informed of the outcome, essential findings, and relevant sanctions, in writing;
- The name, nature of the violation and the sanction, for any student who is found in violation of a College policy that is also a "crime of violence," including: arson, burglary, robbery, criminal homicide, sex offenses, assault, destruction/damage/ vandalism of property, and kidnapping/abduction. The College may release this information publicly, and will release this information to the complainant in any of these offenses, regardless of outcome.

Final results of any disciplinary proceeding include only the name of the student, the violation committed, and any sanction imposed by the College on that student and may include the name of any other student, such as a victim or witness, only with the consent of that other student. The sanction imposed means a description of the disciplinary action, the date of its imposition, and its duration. The violation committed means the institutional rules or codes of conduct sections that were violated and any essential findings supporting the institution's conclusion that the violation was committed.

## V. STUDENT ACADEMIC COMPLAINTS

As members of the educational community, students have the right to express their concerns regarding the assessment of their academic progress through the grading process. Students shall express these concerns initially by contacting the appropriate faculty/staff member within 10 school days of the occurrence giving rise to the concerns, and requesting a conference to informally discuss the concerns.

If the concerns are not resolved to the student's satisfaction after the informal discussion, the student may submit a complaint in writing to the department chair, coordinator or director of the faculty/staff member involved within 10 school days after the informal discussion, or within 10 school days after the initial contact, whichever is later. In filing the written complaint, the student may request to meet with the department chair, coordinator or director. The written complaint must specify the specific complaint(s) together with the desired resolution(s).

The department chair, coordinator, or director who receives the complaint shall review it and respond in writing to the student within 10 school days after receiving the complaint or after holding the (optional) requested meeting, whichever is later.

If the student is not satisfied with the results of the departmental review, he or she may then appeal in writing to the dean of the appropriate division (if applicable) within 10 school days after receipt of the written departmental response. The dean shall review and respond in writing to the student's appeal within 10 school days of the date on which the appeal is received.

If the results of the review by the dean (if applicable) are unsatisfactory to the student, the student may appeal in writing to the Provost within 10 school days after receipt of the dean's written response. The student may request a meeting with the Provost. The Provost or designee shall issue a written response to the student within 10 school days after receipt of the appeal or after holding the (optional) requested meeting, whichever is later. The decision of the Provost shall be final.

## VI. STUDENT NON-ACADEMIC COMPLAINTS

The Dean of Student Affairs or designee shall be responsible for responding to complaints from students on non-academic issues. These issues include, but are not limited to, refunds, admissions, withdrawals, transcripts, and use of facilities.

Students shall express their concerns initially by contacting the faculty/staff member within 10 school days of the occurrence giving rise to the concerns, and requesting a conference to informally discuss the concerns.

If the concerns are not resolved to the student's satisfaction after the informal discussion, the student may submit a complaint in writing to the department chair, coordinator or director of the faculty/staff member involved within 10 school days after the informal discussion, or within 10 school days after the request to meet with the department chair, coordinator or director. The written complaint must specify the specific complaint(s) together with the desired resolution(s).

The department chair, coordinator, or director who receives the complaint shall review it and respond in writing to the student within 10 school days after receiving the complaint or after holding the (optional) requested meeting, whichever is later.

If the student is not satisfied with the results of the departmental review, he or she may then appeal in writing to the dean of the appropriate division (if applicable) within 10 school days after receipt of the written departmental response. The dean shall review and respond in writing to the student's appeal within 10 school days of the date on which the appeal is received.

If the results of the review by the dean (if applicable) are unsatisfactory to the student, the student may appeal in writing to the Provost within 10 school days after receipt of the dean's written response. The student may request a meeting with the Provost. The Provost or designee shall issue a written response to the student within 10 school days after receipt of the appeal or after holding the (optional) requested meeting, whichever is later. The decision of the Provost shall be final.

## Discrimination Complaint Procedure

William Rainey Harper College prohibits discrimination against any individual on the basis of race, color, religion, sex, national origin, ancestry, age, marital status, sexual orientation, physical or mental disability or unfavorable discharge from military service.

## The purpose of the discrimination complaint procedure is as

 follows:- to advise individuals who believe that they have been subjected to discrimination of how to proceed with a discrimination complaint;
- to ensure that such complaints are resolved in a manner which is prompt and confidential.


## Non-Discrimination Compliance Officer

The College President will appoint an employee to act as the College's Non Discrimination Compliance Officer (NDCO). The NDCO will be responsible for the investigation of complaints of
alleged discrimination within the guidelines of existing legislation, College policy and appropriate contracts.

## Informal Discussion

Before filing a formal complaint, students and employees are encouraged to discuss their concerns with the Non-Discrimination Compliance Officer. This confidentia discussion is seen as the first step in the resolution procedure. It allows for sharing of information, giving of advice and achieving mutual resolution between/ among parties.

## Filing and Resolution of a Complaint of Discrimination

A formal investigation of a claim of discrimination will only be undertaken by the Non-Discrimination Compliance Officer (NDCO) upon authorization of the complaining individual and receipt of a written complaint.

The following procedures shall be used for investigating complaint(s) of discrimination.

Within 21 calendar days of the alleged discriminatory act or conduct, an employee or student should:

- submit a specific and detailed written complaint setting forth the nature of the alleged discrimination;
- identify the person(s) against whom the complaint is being filed;
- and identify the date(s) of the action(s) which is (are) the subject of the complaint, and the remedy or relief sought.

Upon receipt of the written complaint, the NDCO will review and discuss the complaint with all parties directly involved. On the basis of the written complaint and interview(s), the NDCO will determine what further investigative action is required.

After the initial interview(s) with the complainant, the NDCO will conduct further investigation as deemed appropriate. Such investigation may include, but is not limited to:

- interviewing the party(ies) alleged to have committed the discriminatory act;
- interviewing witnesses identified by the complaining or accused party;
- and reviewing documents relevant to the complaint.

As a result of the above initial steps, resolution with the parties will be explored. If resolution is not achieved, the NDCO will determine the appropriate actions to be taken.

The NDCO shall prepare a confidential report with regard to the investigation. The report shall state whether or not the NDCO believes a violation of the College's non-discrimination policy has occurred and whether or not resolution has been achieved. The NDCO's report shall be completed within 30 calendar days of receipt of any complaint(s); however, such time may be extended for an additional 30 calendar days if necessary.

If resolution is not achieved, the NDCO's report shall be submitted to the Executive Council for review and action within 14 calendar days of receipt of the report.

A copy of the confidential report will be sent to and maintained by the Chief Human Resource Officer of the College. The NDCO's findings shall be sent to the complaining and accused parties.

Either party may appeal in writing the decision of the Executive Council by filing an appeal with the President within five calendar days of receipt of the Executive Council's decision. The President shall respond within 30 calendar days of receipt of the appeal.

## Communicable Diseases Policy

A student who has a chronic communicable disease or who is a carrier of a chronic communicable disease may attend the College and participate in programs and activities whenever, through reasonable accommodation, there is no significant risk of transmission of the disease to others.

A student who has a chronic communicable disease or who is a carrier of a chronic communicable disease may be denied admission to, or may be dismissed from, a particular program or course of study whenever such chronic communicable disease has a direct effect on the student's ability to perform so as to render the student not qualified for the program or course of study.

No other person who has a chronic communicable disease or who is a carrier of a chronic communicable disease shall be denied the use of College facilities or services whenever, through reasonable accommodation, there is no significant risk of transmission of the disease to others.

The President is authorized to establish rules and regulations that are designed to implement this policy.

## Rules and Regulations

## A. Temporary Exclusion

When there is a question concerning admittance, suspension or dismissal of a student because the student has a chronic communicable disease or is a carrier or is reasonably suspected of having a chronic communicable disease or of being a carrier, such student or other user of College facilities or services may be temporarily excluded from the College by the Provost or designee, pending a final determination. A student who has been temporarily excluded from the College shall be provided with an opportunity to make up any work missed during the absence.

## B. Initial Evaluation

Whenever necessary, a student or other user of College facilities or services who has a chronic communicable disease or who is a carrier of a chronic communicable disease, or is reasonably suspected of having a chronic communicable disease or of being a carrier, shall be evaluated by a team that may consist of the Provost or designee, other appropriate College personnel, a physician, the student's physician, public health personnel and other consultants selected by the President or his/her designee. The team's report and recommendations, along with any dissenting opinions, shall be forwarded to the President for decision. Every effort shall be made to complete the evaluation in a timely and prompt manner.

## C. Admission Decision

The President shall make the decision on admittance, suspension or dismissal after reviewing the report and recommendations of the evaluation team. The President's decision may be appealed to the Board of Trustees.

## D. Subsequent Evaluations

The student shall be periodically reevaluated by the evaluation team to determine whether the student's status continues to be appropriate. The frequency of the reevaluations shall be determined by the team.

## E. Withdrawal

If such student cannot attend the College, or participate in a particular program, activity or course of study, the student shall be permitted to withdraw without prejudice and receive a tuition refund within the given guidelines. Any other user of College
facilities or services who cannot use such facilities or services shall receive a refund for fees paid.

## F. Confidentiality

Such student's medical condition shall be disclosed only to the extent necessary to minimize the health risks to the student and others.

## Distribution of Literature Policy

## I. Purpose

This section outlines the policy and procedures regarding distribution of literature and dissemination of information on the Harper College campus by individuals, registered student organizations, and non-profit groups or agencies.

## II. Policy

1. Individuals, registered student organizations, and non-profit groups may distribute literature and disseminate information on campus in accordance with the following time, place, and manner regulations which are intended to promote freedom of expression while preventing interference with the free flow of traffic and with regular activities and operations of the College.
a. Unregulated distribution of literature has the potential to disrupt College activities, functions, and services; interfere with pedestrian traffic; pose safety hazards; contribute to clutter, litter, and cause visual blight; and result in expenses for cleanup, handling, and environmental costs.
b. Public spaces, including sidewalks, lobbies, courtyards, hallways, and other paths, thoroughfares, and open areas must be maintained so as to permit orderly and safe access and travel for pedestrians, and where appropriate, bicycles and other vehicles. Literature may be distributed by hand in public spaces outside buildings, as long as the distribution does not cause disruption or other adverse effects as noted above.
c. Leafleting is not permitted inside College buildings except at reserved tables as explained in III.b.2, below.
2. The sponsoring organization or individual may be held responsible for costs of cleanup associated with the distribution of information and literature in violation of this policy. A student organization which violates the policy is also subject to administrative responses that would affect the organization's future use of College facilities or other privileges afforded to it by the College.
3. Permission to distribute materials does not imply College endorsement of views expressed in the materials.

## III. Procedures

1. Outdoor distribution of literature and other expressive activity
a. Any person may distribute literature by hand or communicate information on outdoor areas of the College campus which are open to the general public. Distribution of literature that is obscene or pornographic is prohibited.
b. Outdoor distribution of literature from information tables is restricted to designated areas in the paved area of the Quad surrounding the bust of William Rainey Harper.
2. Two table spaces will be made available on a first come, first served basis, except that registered student organizations shall have priority for reservations.
3. Individuals, registered student organizations, and non-profit groups or agencies may not reserve more than one outdoor table space for a particular date.
4. Requests to distribute literature from outdoor information tables should be made through the Office of Student Involvement, which will then place approved requests through Conference and Event Services.
5. Tables must be attended by a representative of the reserving organization.
c. Materials shall not be distributed by placing copies on or in vehicles (including bicycles) on College property.
6. Indoor distribution
a. Registered student organizations, individual students, campus departments, outside non-profit groups or agencies, and individuals sponsored by a Harper College organization or department may distribute literature in the indoor locations designated in III.B.2., below. Materials may not be distributed in offices, laboratories, classrooms, or other non-designated locations except as part of official College functions, and shall not be distributed in a manner that would cause disruption to the regular activities of the College.
b. The entities and individuals described in III.b.1. above may distribute literature from indoor information tables at designated areas in the Student Center in Building A, Building D (limited to representatives of four-year colleges and universities), Building J, Building L, and Building Z.
7. The space is available only upon advance request, which shall be obtained by filing a reservation form with Conference and Event Services, Building R, R210; 847.925.6186.
8. Student clubs and organizations may request a table by contacting the Office of Student Involvement, 847.925.6242 which will then place approved requests through Conference and Event Services.
9. Space shall be allocated on a first-come, first-served basis, provided that the College will give use requests by Harper student organizations priority over requests by nonstudent organizations, and may reserve identified locations for use by representatives of colleges and universities who visit campus to provide students with information about educational opportunities at four-year institutions. Use of a designated area should be requested at least five days prior to the desired date of use, whenever possible. Requests for a subsequent semester will not be accepted earlier than six weeks prior to the beginning of that semester.
10. No displays or distribution shall be conducted in the Building A Student Lounge when that area is reserved for an activity.
11. A maximum of three tables or displays may be placed in the designated area in the Student Center at the same time. A maximum of two tables are designated for college representatives in Building J; one additional table may be reserved on a firstcome, first-served basis (for recognized student organizations or non-profit agencies). A maximum of two tables are available in the designated area in Building Z. Tables will be provided by the College. Displays shall not exceed 4' x 8' in size. The tables and displays
will be placed next to the windows along the south corridor of the Student Center lounge in front of the glass case near the Z119/117 sign, or along the north wall by the events sign in the Business and Social Science Center. One table space may be reserved in the designated area in Building L.
12. In order to allow as many groups as possible to be represented in the Student Center, Building Z, and Building J, a requester may reserve a space for a maximum of: a) one day a week for the semester; or b) one full week per semester.
13. There shall be no more than one space per organization at the same time; however, if no other requests have been made by the reservation deadline, one additional display space may be reserved. At least one person, and no more than four, shall staff each information table or display.
14. Displays may not be disruptive in nature. No sound amplification equipment may be used in the designated area.
c. Representatives of organizations or agencies may not approach students beyond the designated space (behind display table), and must clearly identify themselves to Harper students.
d. Alcoholic beverages, narcotics, profane language, quarreling, fighting or gambling are prohibited. Smoking is also prohibited.
e. The solicitation of funds, the sale of goods or services, or advertising for the sale of goods or services is prohibited except:
15. by student organizations as part of a bona fide fund-raising activity for the organization; and
16. by a tax-exempt charitable organization, if approved by Conference and Event Services.
f. The distribution of literature that is obscene or pornographic is prohibited.
g. The requester is responsible for prompt payment of any damage to College property.
h. If an organization does not staff its reserved space for two reserved dates without notifying the Manager of Conference and Event Services, the College may cancel the balance of the reserved time.
i. Violation of these regulations shall result in revocation of the requesting organization's or individual's reservation by the Manager of Conference and Event Services or by the Director of Student Involvement for the remainder of the semester or three months, whichever is longer, by service of a cancellation notice in writing upon the person who made the reservation(s). If there is a dispute as to the facts regarding the alleged violation, the party contesting the cancellation notice may, within five days of receiving the notice, request the Dean of Student Affairs to hold a meeting with the aggrieved party and the College office which cancelled the reservation to review the alleged violation.
j. An individual or organization which wishes to register a complaint concerning another person or organization's distribution of literature or other expressive activity on campus should communicate that concern to the Director of Student Involvement, who shall cause the complaint to be investigated and shall, if appropriate, endeavor to mediate and resolve the differences between the complainant and the person or entity whose activity is the subject of the complaint.

## Student Dress Code

There is no formal dress code. However, shirts and shoes must be worn in the buildings. Any student whose dress disrupts the educational process may be subject to the Student Code of Conduct and asked to leave campus in the interim.

## Locker General Use Statement

Lockers are the property of Harper College. At no time does the College relinquish its exclusive control of lockers which are assigned to its students for the students' convenience and temporary use. Students are to use lockers exclusively to store school-related materials. Students are responsible for any items placed in the lockers and Harper College will not be responsible for the loss or damage of the students' goods under any conditions; therefore, students shall not store valuable items in the lockers. Students will be held responsible for damage to lockers beyond expected wear.

Inspection of the interior of lockers may be conducted by College officials, for any reason at any time, without notice, without student consent, and without a search warrant. The personal possessions of students within a College locker may be searched only when College officials have a reasonable suspicion that the search will uncover evidence of a violation of state or federal law or college policy. As soon as practical before the search of a locker, the College officials will provide notice of the search to students whose lockers will be searched unless disclosure would impede an ongoing investigation by police or school officials.

## Procedures

Requests for location of lockers will be considered, but due to limited availability, locker location may be determined by the College or division. If a student who is mobility impaired requests a locker, preference will be given for an accessible location (where possible). Procedures for obtaining locks, lockers, or keys may vary according to division or building within Harper College. There may be a fee or deposit applied to use of the lockers within each division; see division office for details.

The lock and any material left in a locker after the assignment ceases will be removed and secured in the Harper College Police Department Lost and Found area. Lockers will be cleaned periodically and all locks and materials in the lockers for which the assignment has terminated will be removed for this purpose and placed in Lost and Found.

## Seizure of Contraband

If a search of a student locker yields contraband, College officials will seize the item and, where appropriate, turn it over to Harper College Police Department who may follow standard procedures regarding criminal activity. Contraband may be used as evidence in internal College disciplinary proceedings against the student. Contraband is defined as any unauthorized item or substance possession of which is prohibited by College policy and/or state or federal law. It includes but is not limited to weapons and "lookalikes", alcohol beverages, controlled substances and "lookalikes", equipment or records belonging to the College, and stolen property.

## Violations

A student found to have violated the general use statement for College owned lockers shall be subject to discipline in accordance with the College's Student Code of Conduct, which may include suspension, exclusion, or expulsion, and the student may, when appropriate, be referred to Harper College Police.

## Policy Regarding Sexual Offenses

Harper College is committed to providing a safe environment for its students, free of harassment, coercion and violence. Moreover, Harper College recognizes that it is a part of a larger community and is obligated to uphold the laws of that community. Although the College policies and procedures and the laws of the community may overlap, they also function independently from one another.

It is illegal and against the policy of Harper College for any student, employee or other person to commit the offense of stalking (when such person transmits a threat with intent to place the victim in reasonable apprehension of sexual assault), sexual assault, aggravated sexual assault, sexual abuse, aggravated sexual abuse, as defined in the Illinois Criminal Code of 1961, 720 ILCS 5/12-7.3, 12-13 through 12-16, against any person while on the Harper College campus, at a College activity or off-campus if there is a direct relationship between the sexual offense and the College. Such illegal and prohibited activities include, but are not limited to, sex offenses which are commonly called date rape or acquaintance rape, or which may involve unwanted touching or fondling, whether forcible or non-forcible.

In conformance with these Acts, the President of the College shall establish a program and rules to implement this policy. The rules will be delineated in the Administrative Services Procedure Manual, the Academic Affairs Procedure Manual, the Student Affairs Procedure Manual and other appropriate publications.

## Rules and Regulations

## A. Introduction

These procedures clarify definitions of acquaintance rape and sexual assault, outlines the steps the institution is taking toward education, prevention and treatment, sets forth disciplinary procedures that may occur when acquaintance rape/sexual assault has taken place on the campus and explains resources available to Harper College students who are victims/survivors of acquaintance rape/sexual assault.

## B. Definitions

Acquaintance rape is defined as forced, manipulated or coerced sexual contact by someone the victim knows. Under Illinois law, acquaintance rape is a crime-the law makes no distinction between sexual assault by strangers or acquaintances. Any forced sexual conduct including forced touching and fondling is also a crime under Illinois law. Under this law, consent cannot be given by someone under the age of 18 , someone under the influence of alcohol or someone who is diagnosed with a mental disability and therefore unable to make a reasonable judgment about the harmfulness of an activity.

## C. Reporting Procedures

1. If any person believes that he or she has been a victim of a sexual offense, such person should report the alleged sexual offense immediately to the Dean of Student Affairs, a faculty member, administrator or Harper College Police. If an employee other than the Dean of Student Affairs receives a report of a sexual offense, the employee shall report the alleged sexual offense to the Dean of Student Affairs.
2. Such person who believes he or she is a victim of sexual offense has the option of also notifying any other law enforcement authorities, including on-campus Harper College Police and local police. The Dean of Student Affairs shall offer to assist such person in notifying law enforcement authorities, and will assist such person if he or she so requests.
3. There are no express time limits for initiating reports under this Policy; however, every effort should be made to file such complaints as soon as possible, while facts are known and potential witnesses are available.
4. The victim of a sexual offense shall make every effort to preserve evidence as may be necessary for the proof of the sexual offense.

## D. Notification to Victims of Sexual Offense

Upon receipt of a report of an alleged sexual offense, the Dean of Student Affairs, or designee shall notify the victim of his or her right:

1. To report the sexual offense to other law enforcement authorities including on-campus Harper College Police and local police.
2. To be assisted in reporting the sexual offense to such law enforcement authorities.
3. To seek the services of existing counseling, mental health, medical or student services for victims of sexual offense, both on-campus and in the community.
4. To receive assistance in changing academic situations if the victim is a student, and if such changes are reasonably available.

## E. Investigation

1. The Dean of Student Affairs shall undertake an investigation of all reports of sexual offense or appoint a qualified person (including the Harper College Police) to conduct the investigation.
2. The accused shall be notified in a timely manner that an investigation is being conducted.
3. The investigator shall file a written report of his/her findings with the Dean of Student Affairs and the President within twenty-eight (28) days after the report of a sexual offense has been made. In the event the investigative report cannot be completed within twenty-eight (28) days, the report shall state the reasons for the delay. Both the accuser and accused shall be notified of the finding of the investigation.

## F. Disciplinary Procedures

The person accused and found guilty of a sexual offense through the Harper College investigation shall be subject to disciplinary action in accordance with established procedures, which procedures shall provide at a minimum that (1) the accuser and the accused are entitled to the same opportunities to have others present during a campus disciplinary proceeding; and (2) both the accuser and the accused shall be informed of the outcome of any campus disciplinary proceeding brought alleging a sexual offense.

## G. Sanctions

An employee found to have committed a sexual offense against another individual will be subject to discipline, up to and including termination.

A student found to have committed a sexual offense against another individual will be subject to discipline, up to and including expulsion and/or barring the student for re-enrollment in the College. Any other person found to have committed a sexual offense against another individual may be barred from the College campus.

## H. Prevention and Education

The Student Development Sexual Assault/Prevention Task Force is dedicated to the prevention of sexual offenses. The Task Force's goal is to educate and promote awareness of rape, acquaintance rape and other sexual offenses. In furtherance of this goal, modules have been developed by counselors to
address this issue and facilitate discussion in the classroom. The prevalence of the connection between the use of alcohol and other drugs and the occurrence of acquaintance rape is an important part of this discussion. Counselors are available to faculty campus-wide to present these modules which can be modified depending on the classroom subject area.

A fact sheet about acquaintance rape and a list of resources are included in the orientation packets for new students and is available in the Health and Psychological Services and Student Development offices.

## I. Services for Victims

## On-Campus

Student Development counselors will provide assistance to a victim in changing academic situations after an alleged sexual offense incident if such changes are reasonably available.

The Office of Harper College Police is committed to the safety and security of the students and will make appropriate efforts to safeguard the campus.

## Off-Campus

CASA-Northwest is a local agency which can provide free counseling and advocacy services to Harper students or employees who are victims/survivors of sexual offenses. The agency is also utilized as a resource for training Harper staff and provides consultation in person or via telephone.

## Sexual Harassment Policy

It is the policy of Harper College that no staff member or student shall be subject to sexual harassment.

Unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct of a sexual nature constitute sexual harassment when:

1. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or education;
2. Submission to or rejection of such conduct by an individual is used as the basis for academic or employment decisions affecting that individual; or
3. Such conduct has the purpose or effect of substantially interfering with an individual's academic or professional performance or creating an intimidating, hostile or offensive education or employment environment.

Individuals engaging in such prohibited activity shall be subject to disciplinary action up to and including termination from this institution as determined by such administrative or Board action as is required by Illinois law or by Board policy. This policy applies to acts of sexual harassment by any member of one sex against a member of the opposite or the same sex at all levels of the College community (i.e., supervisor-subordinate, faculty-student, employee-peer, student-student).

## Rules and Regulations

## A. Reporting

If a student believes that she/he has been sexually harassed, the student should report the alleged act immediately to the Dean of Student Affairs.

## B. Investigation

1. The Dean of Student Affairs or the Chief Human Resource Officer shall undertake an investigation of all such complaints or appoint an administrator or other qualified person to conduct the investigation. No complaint or identity
of a complainant will be disclosed except when necessary to fully investigate the complainant and after notification to the complainant. After a written complaint has been filed, the person accused of sexual harassment shall be notified of the substance and content of the complaint expeditiously.
2. The investigator shall file a written report as to his/her findings with the Dean of Student Affairs or the Chief Human Resource Officer within twenty-eight (28) days after a written complaint has been made. In the event the report cannot be completed within twenty-eight (28) days, the report shall state the reasons for the delay. The complainant and the person accused shall be notified of the findings of the investigation.
3. If the investigation discloses evidence that an act or acts of sexual harassment have been committed,
the person accused of sexual harassment may be subject to disciplinary action in accordance with established procedures. Also, one or both parties may be recommended for counseling in order to understand the nature and/or deal with the consequences of the complaint.

## C. Dissemination of Policy

1. Any student is encouraged to raise questions she/he may have regarding sexual harassment with Student Development counselors or other faculty members or administrators, including executive council member(s) or the president.
2. A copy of the Student Handbook containing Board policy and implementing regulations shall be made available to students annually.

## Smoking Policy

It is the policy of Harper College to provide a smoke/tobacco free environment consistent with its efforts to promote wellness and a campus environment conducive to work, study and activities for students, employees and the public. The policy pertains to all of the facilities of Harper College, which includes all owned or leased facilities, regardless of location.

The College recognizes the rights of those who choose to use tobacco and does not prohibit the use of tobacco products. It does, however, in accordance with the State of Illinois Public Act 86-1018, the Illinois Clean Indoor Air Act (effective July 1, 1990), and the Smoke Free Illinois Act (effective January 1, 2008), restrict the use of these materials to designated areas outside College buildings and vehicles.

This policy complies with the Americans with Disabilities Act, which provides smoke-free entrances for employees and students with respiratory and other conditions affected by exposure to smoke. In addition, in accordance with the American College Health Association guidelines, smoking will be prohibited in outside athletic and classroom areas, which include but are not limited to, the tennis courts, baseball and soccer fields, track and field areas, and stadium and seating areas.

As defined in this policy, tobacco products include cigarettes, cigars or tobacco in any other form, including smokeless tobacco which is any loose, cut, shredded, ground, powdered, compressed or leaf tobacco that is intended to be placed in the mouth without being smoked.

A map of the designated smoking areas is available online and at all information desks.

Health and Psychological Services will offer assistance to staff and students who desire to quit smoking through cessation workshops and other support.

In the event of a disagreement between a non-smoker and smoker, the rights of the non-smoker to protect his/her health shall prevail over the rights of the smoker.

## Non-Solicitation Policy

Solicitation shall include any undertaking of an individual or group to promote the sale or use of a particular product or service, or a contribution to an individual or organization. Except as otherwise provided below, this policy applies to and prohibits the following:

Soliciting in Harper College facilities or on campus by for-profit corporations, non-profit organizations, faculty, staff, students, or any other individuals. This prohibition includes personal solicitations made through campus e-mail listservs.

## The following solicitation activities have been approved as exceptions to this policy:

1. Solicitations Sponsored or Authorized by the College Harper College participates in the Annual Giving Campaign to help support student scholarships, as well as a number of approved charitable events during the year. Participation by employees is on a voluntary basis. Campus-wide solicitations for charitable organizations may not be conducted without approval of the Executive Vice President for Finance and Administrative Services.
2. Solicitations Sponsored by Registered Student Organizations of the College
3. Signature Collection
4. Signatures for petitions or similar documents may be solicited on outdoor campus spaces, such as the Quad. To avoid impeding free access to College facilities, signatures may not be solicited directly in front of the entry way of any campus buildings.
5. Signatures may also be collected at information tables reserved by individuals or organizations as provided in the Distribution of Literature Policy. Except as next provided, no one may otherwise approach anyone inside campus buildings to solicit signatures. The solicitation of student signatures on nominating petitions of candidates for Student Trustee and Student Senate is permitted in common areas of campus buildings during designated preelection periods.
6. Harassing behavior is not permitted. Individuals who engage in such conduct may be directed to leave campus or, if they are Harper students, be subject to Conduct Code proceedings.

Harper employees are expected to perform their duties as representatives of the College in a professional manner, and to avoid misusing their positions for personal or private gain. In this regard, class lists and any other data about students to which employees may have access are to be used solely for College instructional, administrative, advising/counseling and business purposes. Use of this information for personal or business solicitation is strictly prohibited.

## Speakers Policy

Harper College respects the right of all members of the academic community to explore and to discuss questions which interest them, to express opinions even if unpopular, publicly and privately. The College offers the following procedures to make its facilities available for peaceful assembly, to welcome guest speakers and to encourage the exercise of these rights free from disruption or interference.

Recognized student organizations may invite guest lecturers, panel participants, discussion leaders or others from off campus to speak, provided such programs are registered with the Student Involvement office four weeks in advance. If the program is open to only members of the sponsoring organization - and not open to other students or the public - then two weeks advance notice is sufficient. All expenses involved in retaining the speaker shall be specifically provided for by the sponsoring organization at the time of registration.

No arrangements with guest speakers are to be made until the registration with the Student Involvement office has been completed. Individual students may request guest speakers through recognized campus organizations under the above procedures.

Permission to appear at the campus does not imply College endorsement of a speaker or an issue.

Limitations on speakers are warranted only when the Dean of Student Affairs deems their appearance or content of their speech represents a real threat toward maintaining campus order (e.g., it is obscene, defamatory, or intent on inflicting emotional distress, or it invites lawlessness or contains "fighting words"). In such cases, an ad hoc speakers committee composed of three faculty members appointed by the Provost, three students chosen by the Student Senate, subject to approval of the Dean of Student Affairs and the Coordinator of Media Relations shall determine whether or not the speaker will appear.

The committee's decisions may be appealed by either the sponsoring organization or the Dean of Student Affairs, and subject to the approval of the College President and Board of Trustees. Should the speaker represent a real threat toward maintaining campus order after being contracted, the Dean of Student Affairs or the sponsoring organization with the approval of the Dean of Student Affairs may cancel the contract.

In the event the speaker or issues are not deemed a real threat toward maintaining campus order but are deemed controversial or extreme by the Dean of Student Affairs, the sponsoring organization shall obtain a member of the faculty to chair the program, and shall provide time during the program for the audience to question the speaker.

## Technology Resources

## I. Philosophy

Harper College provides for the use of technology and information equipment, software, networks and facilities to further the College's mission of instruction, communication, research, and public service. Access and use of facilities is a privilege and must be treated as such by all users. Acceptable use is based on common sense, common decency, and civility, and users are subject to such procedures and processes, which operate in the College. Responsibility for the provision and support of the resources resides with Information Technology organization.

## II. Risk and Responsibility: E-Mail, Internet Resources, and Electronic Files

## A. Security

Harper College utilizes industry standard tools, processes, and equipment to protect electronic files stored on its computer systems and to filter materials that are transmitted or received via the College computer resources. Harper College assumes no liability for offensive material that any user may encounter, such as material that is illegal, defamatory, obscene, inaccurate or controversial.

## B. Privacy

Users are strictly prohibited from accessing files and information other than their own, those which were intended for the user, and those for which the user has permission from authorized College personnel to access.

The College reserves the right, to access its computer and network systems, including current and archival files of users' accounts; if that access would be imperative to conducting College business; if there is strong evidence of improper usage; or if there is strong evidence of impropriety. Under the Illinois Freedom of Information Act ("IFOIA"), electronic files are treated in the same way as paper files. Any inspection of electronic files, and any action based upon such inspection, will be governed by all applicable federal and state laws and by College policies.

## C. Education and Training

All users have the responsibility to use the facilities and all forms of technology resources in an efficient, ethical, and legal manner. Users are expected to follow equipment and lab usage guidelines and, when necessary, receive training in the use of these resources. They should accept responsibility for their own work by learning appropriate uses of software to maintain the integrity of work created. Users should keep archives and backup copies of important work. They are responsible for learning and properly using the features of securing and/or sharing access to files.

## III. Unacceptable Uses

It is the joint responsibility of all users to help avoid unacceptable uses such as but not limited to:

- Using the resources for any purpose, which violates federal laws, state laws or College policies.
- Using the resources for commercial purposes.
- Misrepresenting the user's identity or affiliation in the use of information technology resources.
- Creating, sending, storing or soliciting patently harassing, intimidating, abusive, or offensive material to or about others.
- Intercepting, disrupting, or altering electronic communications.
- Using another person's account, user ID, name, or password.
- Sharing of individual user accounts and resources with another person or another organization.
- Attempting to exceed, evade or change assigned specifications or limitation of an account without the approval of appropriate College personnel. Impeding the use of systems by others.
- Attempting to corrupt the system.
- Reproducing, copying, downloading or distributing copyrighted materials without authorization.

Use of networks, technology, and information resources accessed from the College, such as Internet, satellite teleconferencing and distance learning facilities, is subject to the same principles and guidelines that are present within the College. Networks, technology, or information resource providers outside the College may, in turn, impose additional conditions of appropriate use, which the user is responsible to observe when using those resources.

## IV. Consequences

Abuse of these guidelines will result in possible legal action and/ or official campus disciplinary procedures. Incidents involving unacceptable uses will be handled through existing processes.

## Workplace Violence Policy

Harper College is committed to maintaining an environment for its students and employees which is free from violence, threats of violence, aggression, intimidation, harassment and sexual harassment of any sort from other students and employees, as well as outside parties, including visitors to the College, vendors and those having no legitimate purpose to be on the College's campus.

To ensure a safe environment for employees and students, Harper College prohibits the wearing, transporting, storage or presence of firearms or other dangerous weapons in its facilities or on its property. Any employee or student in possession of a firearm or other weapon within Harper facilities/ property or while otherwise fulfilling job responsibilities may face disciplinary action, including termination.

To the extent allowed by law, Harper College prohibits persons from carrying weapons in any of its facilities or on its property. This policy does not apply to any law enforcement personnel engaged in official duties.

Any acts of workplace violence will not be tolerated, and all reports of such incidents will be taken seriously and dealt with appropriately. Individuals who commit such acts may be removed from the premises and subject to disciplinary action, criminal penalties or both.

All members of the campus community are encouraged to report conflicts that compromise the health and effectiveness of individual employees and their worksites before they become major problems.

Procedures to implement this policy and the process for determining violations to this policy will be published in the Administrative Services Procedure Manual, in the Student Handbook and other appropriate publications.

## Emergency Procedures

- Call Harper College Police at 911 or extension 6330.


## Immediate Physical Danger

- Get out of the area and away from the immediate threat.
- Call Harper College Police immediately after you are in a safe place.


## Violence Committed

- Call Harper College Police immediately if a person commits an act of violence against you or another person.


## Intimidating Situation

- Call Harper College Police if a person has communicated a direct or indirect threat of physical or mental harm against you in any form (i.e., oral or written statements, gestures, expressions). Call Harper College Police immediately from a location away from the person who is causing the intimidation. Be prepared to give the dispatcher all the facts, and remain on the line until the officers arrive.


## Non-Emergency Procedures

If you are not in immediate physical danger, but you have experienced or witnessed harassment (also see separate Sexual Harassment policy and procedures) or intimidation:

1. Report instances of intimidation or concerns about workplace violence to your direct supervisor.* Determine with your supervisor if the issue can be resolved at this level. *If your direct supervisor is the person with whom you are experiencing the conflict, report the incident to that
person's direct supervisor. If that person is also involved in the conflict, you may report the concern to the Workplace Violence Investigation Officer (WVIO) who is the Chief Human Resource Officer.
2. If the conflict cannot be resolved with your direct supervisor, file a formal written complaint with the WVIO (appointed by the President). The complaint should describe the alleged violation, the person(s) against whom the complaint is being filed and dates of the action(s) as well as the remedy or relief sought (use Workplace Violence Incident Report Form).
3. Upon receipt of the written complaint, the WVIO will review and discuss the complaint with all parties directly involved. On the basis of the written complaint and discussion(s) the WVIO will determine what further investigative action is required.
4. After the initial discussion(s) with the complainant, the WVIO will conduct further investigation as deemed appropriate. Such investigation may include, but is not limited to:
a. Interviewing the party(ies) alleged to have committed the act;
b. Interviewing witnesses identified by the complaining or accused party; and
c. Reviewing documents relevant to the complaint.
5. As a result of the above initial steps, resolution with the parties will be explored. If resolution is not achieved, the WVIO will determine the appropriate actions to be taken.
6. The WVIO shall prepare a confidential report with regard to the investigation. The report shall state whether or not the WVIO believes a violation of the College's Workplace Violence policy has occurred and whether or not resolution has been achieved. The WVIO's report shall be completed within 30 days of receipt of any complaint(s); however, such time may be extended for an additional 30 days if necessary.
7. If resolution is not achieved, the person accused of workplace violence may be subject to disciplinary action up to and including termination of employment.
8. A copy of the confidential report will be sent to and maintained by the Chief Human Resource Officer of the College. The WVIO's findings shall be sent to the complaining and accused parties.
9. Either party may appeal, in writing, the decision of the WVIO by filing an appeal with the President within five calendar days of receipt of the decision. The President shall respond within 30 calendar days of receipt of the appeal.
10. All reports of concerns made under this policy are confidential. The confidential records will be kept in the office of the WVIO. Supervisors, the WVIO and other necessary administrators are directed to limit disclosure of information to only those persons who, in their discretion, are required to be made aware of a complaint made under this policy. Investigations under this policy are to be made with the least amount of disclosure needed to effectively carry out the investigation. Further, the final report of the WVIO and all discussions concerning a resolution of a complaint will be kept confidential and released to only those persons who are required to have knowledge. Those making a report of misconduct under this Policy, those interviewed in an investigation under this Policy and those who are the subject of a report under this Policy are requested to limit their disclosure of information to their supervisor, the WVIO, and/or other necessary persons.

The Workplace Violence Complaint Procedure will be evaluated each year by the Chief Human Resource Officer. Recommendations for changes in this procedure will be brought to the Human Resources Committee.

## Federal and State Laws

This section includes information on College policies and procedures.

Elsewhere in the Catalog, College academic regulations are delineated for students. These include Harper College Standards for Academic Performance, Assessment and Placement Policy, Repeat Policy, Forgiveness Policy, Grading and Grade Points, Incomplete Grades, Attendance Policy, Academic Honesty Policy, Auditing a Course, Tuition and Refunds, Academic Honors, Withdrawals, Honors Program, Transcripts and Transfer of Credits.

The Catalog also includes graduation requirements for degrees and certificates, and information on all programs and courses and their prerequisites. The current semester course schedule online and schedule printouts posted throughout the College provide specific information regarding class times and registration procedures.

## Americans with Disabilities Act

Reasonable accommodations and services are available for students, staff and visitors with disabilities in accord with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. Persons with disabilities, who may require accommodations and/or support services, should contact Access and Disability Services in Building D, Room D119, or telephone 847.925.6266 (voice) or 224.836.5048 (VP). While mandated services will be offered at Harper College facilities, complete College support services such as tutoring, counseling and others may only be available at the Palatine campus. Employees seeking accommodations should contact Human Resources.

## Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act

The Clery Act requires colleges and universities to disclose data on certain crimes committed on and off campus and campus safety policies and procedures. An amendment, The Campus Sex Crimes Prevention Act, requires disclosure of where law enforcement agency information provided by the State concerning registered sex offenders may be obtained. Harper compliance information can be found at http://goforward.harpercollege.edu/ police/prevention/
Hard copies are available upon request.

## Equity in Athletics Disclosure Act

Harper College complies with the Equity in Athletics Disclosure Act by annually completing a report that contains participation rate, financial support and other information on men's and women's intercollegiate athletic programs. Such information can be found at harpercollege.edu/about/consumer.shtml

Hard copies are available upon request.

## Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974
establishes the rights of students to inspect and review their
education record; provides that personally identifiable information will not, with certain exceptions, be disclosed without the student's permission; provides for guidelines for the correction of inaccurate or misleading data through informal or formal hearings; grants the right to file complaints with the Family Educational Rights and Privacy Act (FERPA) office concerning alleged failures by the institution to comply with the Act; and makes provision for notice to the students concerning their rights.

No one shall have access to, nor will the institution disclose, any information from students' education records - other than Directory Information - without the written consent of student, except to officials of other institutions in which student seeks to enroll; to persons or organizations providing the student financial aid; or providing enrollment and/or degree verification to accrediting agencies carrying out the accreditation function; in compliance with a judicial order; in emergency situations when necessary to protect the health or safety of students or other persons; or to those members of the College community with a legitimate educational interest.
"Legitimate educational interest" means and includes a demonstrable need to know by any college employee in terms of his or her assigned duties. Parents of a dependent child (as defined by IRS code) are also eligible to inspect that dependent student's record.

Educational records that are not governed by the Act and are not accessible to students include:

1. Records kept by Harper employees, which are used only by the maker or his or her substitute and are not available to any other person.
2. Law enforcement records which are kept apart from the student's other educational records and are maintained solely for law enforcement purposes. These records are made available for inspection by Harper College Police personnel only when acting in the line of duty and only to law enforcement officials of the same jurisdiction. Educational records maintained by the institution may not be disclosed to the personnel of the law enforcement unit.
3. Employment records for College employees, which are kept solely for business reasons.
4. Student records made or maintained by a physician, psychiatrist, psychologist or other recognized professional or para-professional acting in his or her professional or para-professional capacity, and which are made, maintained or used only in connection with the provision of treatment to the student and are not available to anyone other than persons providing such treatment, except that such records can be personally reviewed by a physician or other appropriate professional of the student's choice.

## Directory Information

The following items are hereby designated as "Directory Information," and as such may be disclosed or released by the College for any purpose, at its discretion:

The student's name, address, telephone listing, major field of study, participation in officially recognized activities and sports, weights and heights of members of athletic teams, dates of attendance, part-time/full-time enrollment status, degrees and awards received, the most recent previous educational institution attended and information sent to the National Student Clearinghouse.

Currently enrolled students have the right to withhold the release and disclosure of any or all of these items by giving written notice on the appropriate form to that effect to the Dean of Enrollment Services by the first day of each course or program, as the case may be, for which they enroll. Request for non-disclosure will be
effective for only one academic year; therefore, authorization to withhold Directory Information must be filed annually.

## Review of Records

The law provides students with the right to inspect and review information contained in their education record; to a response to reasonable requests for explanations and interpretations of the record; to challenge the contents of their education record; to have a hearing if the outcome of the challenge is unsatisfactory; and to submit explanatory statements for inclusion in their files if they feel the decision of the hearing officer is unacceptable. The Dean of Student Affairs has been assigned by the College to coordinate the inspection and review procedures for student education records, which include admissions, personal, academic, and financial files, academic cooperative education, disclosure and placement records.

Students wishing to review their education records must make a written request to the official responsible for the records listing the item or items of interest.

Records covered by the Act will be made available within 45 days of the request. Students may have copies made of their records with certain exceptions (e.g., a copy of the academic record for which a financial "hold" exists, student conduct hearing recordings or student conduct recordings containing protected information about other students or a transcript of an original or source document which exists elsewhere). Education records do not include records of instructional, administrative and educational personnel which are the sole possession of the maker and are not accessible or revealed to any individual except a temporary substitute, records of the law enforcement unit, student health records,employment records or alumni records. Health records, however, may be reviewed by physicians of the student's choosing.

Students may not inspect and review the following: financial information submitted by their parents; confidential letters and recommendations associated with admissions, employment or job placement, or honors to which they have waived their rights of inspection and review; educational records containing information about more than one student, in which case the institution will permit access ONLY to that part of the record which pertains to the inquiring student; and confidential letters and recommendations placed in their files prior to January 1, 1975, providing those letters were collected under established policies of confidentiality and were used only for the purposes for which they were collected.

## Procedures to Amend Records and Request Hearings

Students who believe that their education records contain information that is inaccurate or misleading, or is otherwise in violation of their privacy or other rights, may discuss their problems informally at a meeting with the author of the record and the Dean of Student Affairs. If the decisions are in agreement with the student's request, the appropriate records will be amended. If not, the students will be notified within a reasonable period of time that the records will not be amended, and they will be informed by the Dean of Student Affairs of their right to a formal hearing. Students' requests for a formal hearing must be made in writing to the Dean of Student Affairs who, within a reasonable period of time after receiving such requests, will inform students of the date, place and time of the hearing.<p">Students may present evidence relevant to the issues raised and may be assisted or presented at the hearings by one or more persons of their choice, including attorneys, at the student's expense. The hearing officers who will adjudicate such challenges will be designated by the President of the College.

Decisions of the hearing officer will be final, will be based solely on the evidence presented at the hearing, will consist of written
statements summarizing the evidence and stating the reasons for the decisions and will be delivered to all parties concerned. The education records will be corrected or amended in accordance with the decisions of the hearing officer, if the decisions are in favor of the students.

If the decisions are unsatisfactory to the students, the students may submit statements commenting on the information in the records, or statements setting forth any reason for disagreeing with the decisions of the hearing officer. The statements will be placed in the education records, maintained as part of students' records, and released whenever the records in question are disclosed. $<$ p">Students who believe that their rights have been abridged may file complaints with the Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave., SW, Washington, D.C., 20202-5901 concerning alleged failures of the College to comply with the Act.

Copies of the Act, Harper policies and procedures and forms for use in implementing the Act, are available upon request in the Registrar's Office, Student Center, Building A, Room A213.

## Religious Observances Policy

Harper College recognizes that on occasion examinations or other scheduled academic activities may conflict with the religious observances of some members of the academic community, and accordingly encourages the instructional and administrative staff to make reasonable accommodations to minimize the resulting difficulties for individuals concerned. In compliance with the Higher Education Religious Observances Act (110 ILCS 110/0.01), students faced with such conflicts must make prior arrangements with the instructor five (5) school days* in advance of the examination or other activity creating the conflict. Students believing that they have been unreasonably denied an educational benefit due to their religious beliefs or practices may appeal the decision in accordance with the College's Student Academic or Non-Academic Complaint Procedures.

* School days are defined as those weekdays (Monday through Friday) when classes are in session.


## Student Right to Know Act

The Federal government, under the Student Right to Know Act, requires that all colleges and universities report graduation or completion rates and, if applicable, transfer-out rates for new full-time, degree or certificate-seeking students. Information for Harper College is available at harpercollege.edu/about/ consumer.shtml

Hard copies are available upon request.

## College Credit Programs and Requirements

- Adult Educational Development (AED)
- Alternative Credit Programs
- Alternative Learning Modalities
- Cooperative Programs
- Distance Learning
- Diversity Requirement
- English as a Second Language (ESL)
- General Education
- Graduation Requirements
- Honors Program
- International Studies Program
- Student Development Courses and Seminars


## Transfer

- Transfer Agreements
- Other Transfer Agreements
- Transfer Compact Agreements
- Transfer Options


## Adult Educational Development

The Adult Educational Development (AED) Department provides instructional programs and services in basic skills, Pre-GED, GED, nonnative literacy, citizenship, employment skills, Bridge classes in Health Care, Manufacturing and Tech Connect and special topics. All programs are intended for adults 16 years old and over who are not currently enrolled in a secondary school.

The Nonnative Literacy Program (ESL literacy) serves students whose first language is not English and who have limited years of schooling in their native countries.

The basic skills program is intended to teach adults who cannot read, write or perform basic arithmetic. The Pre-GED and GED programs are designed for those who have not completed a secondary education program in the United States and who have not passed the General Educational Development (GED) Test battery (high school equivalency). The GED testing program is intended for adults 17 years of age and older. The citizenship training program focuses upon test preparation and procedures for U.S. citizenship. The employment skills program is open to students concurrently enrolled in nonnative literacy or as a separate option.

Students are tested and advised during registration for placement in classes. Basic skills, nonnative literacy and Pre-GED students are advised of their progress through achievement tests in classes, and GED students are given practice tests to measure potential success in passing the GED Test battery. Advising services are available to meet students' personal, academic and/or career/vocational needs. Specialized sections of GED instruction are available as online courses.

Daytime and evening courses are offered at the Palatine campus, Northeast Center, Harper College at Rolling Meadows and the Palatine Opportunity Center. Courses include Nonnative Literacy I, II, III, IV \& V; Basic Reading Skills, Basic English Skills, Basic Mathematical Skills, Pre-GED Reading Skills, Pre-GED English Skills, Pre-GED Mathematical Skills; GED Social Studies and Science, GED Writing Skills and Literature, GED Mathematics; Adult Employment Skills; Citizenship Training; computer classes and conversation classes etc. for ESL literacy students. For more information, call the AED Department at 847.925.6223 (campus) or 847.925.6015 (Northeast Center).

## Alternative Credit Programs

Students with varied educational experience may convert this experience into college credits on the basis of satisfactory performance on proficiency examinations. A person who has been officially accepted as a Harper student may apply for and receive college credit by meeting the course objectives (through such means) for up to 42 semester hours of the degree program requirements and up to one-half of the semester hours required for completion of a certificate program. This could include Advanced Placement (AP) credit, College Level Examination Program (CLEP) credit, Harper College Proficiency Examination credit, the American Council on Education recommendations for Defense Activity of Non-traditional Educational Support (DANTES, previously USAFI).

Guidelines, policies and procedures for alternative credit programs are available online at harpercollege.edu and in the Testing Center.

## Advanced Placement Program (Offered Only in High School)

Credit and placement will be awarded to students with adequate Advanced Placement (AP) examination grades in areas comparable to the Harper curriculum. The granting of credit and/ or advanced placement will be determined following established guidelines.

## College Level Examination Program

Credit through the College Level Examination Program (CLEP) is available to all students who feel they have acquired the necessary proficiency level to meet the requirements in a variety of subjects not covered by Harper College proficiency tests. Criteria for granting credit have been determined by each academic division. A student who has previously completed CLEP tests should request that the scores be sent to the Testing Center. Granting of CLEP credit by Harper College is contingent upon completion of application procedures.

## Harper College Proficiency Examination Program

Departmental proficiency tests have been created by Harper College faculty for many courses not available through the CLEP program. Written permission to take a proficiency test must be received from the appropriate program coordinator or department chairman and brought to the Testing Center. Permission forms are available in the office of each academic division.

## American Council on Education Credit Recommendations

Credit through Defense Activity for Non-traditional Education Support (DANTES) is available by submitting an official score report. DANTES tests equivalent to College Level Examination Program (CLEP) tests will be evaluated using Harper College CLEP standards.

## Alternative Learning Modalities

Harper College is committed to establishing and maintaining consistently high academic standards for instruction and learning outcomes across all teaching modalities while offering students the opportunity to choose the learning environments that best serve their educational interests.

## Fast Track - Accelerated Program

Now more than ever, advanced training and continuing your education are essential for sustained career success. The Fast Track program specializes in serving those who:

- need to fit college around their busy lifestyle
- want to reenter the workforce with updated credentials after an absence
- need their degree to earn a promotion
- have already earned a degree but need to update their credentials or re-career
- desire access to one-on-one support resources to successfully complete their goals

Depending on the program, students can complete a degree by attending one class meeting per week over an approximate two and a half year period. Currently available in a Fast Track format is an Associate in Applied Sciences (A.A.S.) degree in Business Administration. Various certificate programs also available include Health Insurance Specialist Certificate and the

Supply Chain Management, Inventory and Production Control, and HR Management Certificates.

Fast Track is designed for adults age 24 or older. To ensure that all students are ready to move forward at the same pace, we ask that everyone meet some minimum requirements. English and math placement testing may be required. Students with prior college credit need a minimum overall GPA of 2.0. Life experience and job history are equally important components for success in the program and will be considered for acceptance into the program. Don't worry if you've been out of the classroom for a while or if you feel a little rusty on basic skills; we can help you prepare-just ask us how. Contact the Admissions Outreach Office at 847.925.6707.

## Other Options

Additional alternative learning options meet the changing needs of people on the go, with courses that are more accessible, flexible and convenient. Special opportunities include:

- Blended Courses
- Internet Courses
- Late-Start Classes
- Open Entry Classes
- XLR8 Classes


## Blended Courses

Blended courses offer two great ways to learn. The classroom experience is combined with online instruction to provide an effective learning environment. On-campus visits or actual classroom time is reduced because some learning is done via the Web. Participation in a Blended Course requires specific computer hardware and software, an off-campus Internet connection and a working email account. Proctored testing on campus may be necessary. Sections are coded with a 'B'.

## Internet Courses

A wide variety of courses are now available to students via the Web. Not only will you have the flexibility of class scheduling and testing dates and times, you'll also have the opportunity to communicate with your instructor and classmates via email or through special forum "chat" rooms, both an integral part of your online educational experience. If you have access to a computer with specific hardware and software requirements, modem and online access through an off-campus Internet Service Provider (ISP), and a working email account, then internet courses may be the perfect option for you. Campus visits for orientation sessions and/or proctored testing may be necessary for some courses. Sections are coded with a 'W'.

## Late-Start Classes

The name says it all. Late-Start classes are ideal if you're not able to register on time. Or if you'd like to take two courses-one the first eight weeks of the semester and a second one the last eight weeks. So if you've missed our scheduled registration, check out our website at harpercollege.edu for a complete list of Late-Start classes.

## Open Entry/Flexible Start Classes

Harper has designed this unique class format to meet the needs of many students. Maybe you are unable to attend regularly scheduled classes. Or you want to finish the course work more quickly or you are just anxious to start, but the course has already begun. We require a one-hour orientation (some are mandatory) where the instructor will show you around the lab and website, hand out homework assignments and answer any questions. Open Entry classes are offered in AutoCAD (ARC), remedial Mathematics, some English as a Second Language classes and Heating, Ventilation and Air Conditioning (RAC). In addition, all Adult Educational Development classes are open entry. The

Computer Information Systems department offers flexible start classes that must be completed at the end of the term (CAS/CIS/ NET).

## XLR8 Classes

Earn credit hours and a Harper Achievement Award in just 16 weeks. The XLR8 program offers awards in several career disciplines including Architecture (ARC), Computer Applications Software (CAS), and Maintenance (MNT). Take two 8 week classes back-to-back in one semester.

For more information on any of our classes, call 847.925.6707 or visit Harper Collegeharpercollege.edu_blank

## Cooperative Programs

Harper College has Joint Educational Agreements with various area community colleges. Under these agreements, Harper district residents, who are admitted to the programs listed below, will usually be allowed to attend at the sponsoring college's indistrict tuition rate.

The cooperating college will issue all degrees or certificates for successful completion of the program. Program and admission information may be obtained by calling the Admissions Office at the college offering the program, as listed below:

## College of DuPage

630.942.2800

425 Fawell Boulevard
Glen Ellyn, Illinois 60137-6599

- Automotive Technology
- CISCO Internet Technician
- Communication Art and Sciences-Multimedia Arts
- Horticulture
- Human Services
- Library Technical Assistant
- Manufacturing Technology
- Media
- Nuclear Medicine
- Photography
- Respiratory Therapy Technician
- Therapeutic Massage
- Travel and Tourism
- Travel and Transportation


## College of Lake County

847.223.6601

19351 West Washington Street
Grayslake, Illinois 60030

- Alcohol, Substance Abuse, and Addictive Disorders
- Applied Lasers
- Biophotonics
- Automotive Collision Repair
- Automotive Technology
- Civil and Environmental Technology
- Construction Management Technology
- Health and Wellness Promotion
- Horticulture
- Laser/Photonics/Optics
- Library Technical Assistant
- Magnetic Resonance Imaging
- Personal Training
- Sustainable Agriculture
- Technical Communications
- Tool and Mold Maker
- Wellness Coaching


## Elgin Community College

847.697.1000

1700 Spartan Drive
Elgin, Illinois 60123-7193

- Automotive Technology
- Clinical Laboratory Technology
- Computer Aided Manufacturing
- Culinary Arts
- Dental Assisting
- Family Violence Counseling
- Histotechnology
- Industrial Manufacturing
- Plastics Processing and Fabricating
- Plastics Technology
- Surgical Technology
- Truck Driving
- Truck Driving Owner/Operator

Kishwaukee College
815.825.2086

21193 Malta Road
Malta, IL 60150-9699

- Horticulture

Lincoln Land Community College
217.786.2200

5250 Shepherd Road
Springfield, Illinois 62794-9256

- Airframe and Power Plant Mechanics

McHenry County College
815.455.3700

8900 U.S. Highway 14
Crystal Lake, Illinois 60014

- Automotive Technology
- Entrepreneurship
- International Business
- Horticulture
- Manufacturing Management
- Manufacturing Processes
- Manufacturing Supervision

Oakton Community College 847.635.1600

1600 East Golf Road
Des Plaines, Illinois 60016

- Animation and Multimedia
- Automotive Service Excellence
- Automotive Technology
- Facilities Management and Engineering
- Machine Technology Apprentice
- Manufacturing Design Technology
- Medical Laboratory Technology
- Photography ${ }^{1}$
- Physical Therapy Assistant

Rock Valley College
815.921.4251

3301 North Mulford Road
Rockford, Illinois 61101

- Airframe Technician
- Aviation Maintenance Technology
- Power Plant Technician
Triton College
708.456 .0300
2000 Fifth Avenue
River Grove, Illinois 60171
- Automotive Technology
- Ophthalmic Technician
- Respiratory Care
- Surgical Technology
- Visual Communications

${ }^{1}$ Technical courses only.

Harper College programs available to residents of other college districts under cooperative agreements are as follows:
Architectural Studies
McHenry County district
Alternative Electrical Energy
McHenry County district
Bread and Pastry Arts
Oakton and Rock Valley districts
Building Codes and Enforcement
DuPage, Lake County and Oakton districts
Cardiographic Technician
DuPage, Elgin, Kishwaukee, Lake County, McHenry County,
Oakton, Rock Valley and Triton districts
Computer Information Systems - Computer Support
Specialist
McHenry County district
Culinary Arts
Oakton and Rock Valley districts
Dental Hygiene
Elgin, Kishwaukee, McHenry County, Oakton and Triton
districts
Diagnostic Cardiac Sonography
DuPage, Elgin, Kishwaukee, Lake County, McHenry County,
Oakton, Rock Valley and Triton districts
Diagnostic Medical Sonography
Elgin, Lake County, McHenry County, Oakton and Rock
Valley districts
Dietary Manager
Oakton district
Dietetic Technician
DuPage, Elgin, Lake County, Oakton and Triton districts
Electronics Engineering Technology
McHenry County district
Electronics
McHenry County district
Electrical Maintenance
McHenry County district
Fashion Design
Elgin, Kishwaukee, Lake County, McHenry County, Oakton
and Triton districts
Ma

Fashion Merchandising
Elgin, Kishwaukee, Lake County, McHenry County and Oakton districts

Fashion Graphic Arts
McHenry County district
Food Service Management McHenry County and Oakton districts

Graphic Arts Pre-Press production Lake County district

Graphic Arts Technology
Lake County district
Health Care Office Assistant
DuPage district
Hospitality Management
McHenry County and Oakton districts
Hotel Management McHenry County and Oakton districts

Human Resource Management
DuPage and Lake County districts
Interior Design
Elgin, Lake County, McHenry County and Oakton districts
International Business
McHenry County district
Maintenance Technology
Lake County district
Mammography
Elgin, Kishwaukee, Lake County, McHenry County and Oakton districts

Management DuPage district

Medical Assistant DuPage, Elgin, McHenry County and Oakton districts

## Paralegal Studies

 McHenry County, Rock Valley and Triton districtsPhlebotomy
McHenry County
Practical Nursing Lake County, McHenry County

Radiologic Technology Kishwaukee, McHenry County and Oakton districts

Refrigeration and Air Conditioning Technology McHenry County district

Sales Management and Development DuPage district

Sign Language Interpreting DuPage, Elgin, Lake County, McHenry County and Triton districts

## Supply Chain Management

 DuPage, Elgin, Lake County and McHenry County districts
## Distance Learning Classes

## Center for Innovative Instruction

A wide variety of courses are available to students via the World Wide Web. Online, and blended (Internet component with reduced campus class time) courses offer the options of flexible learning time as well as communication with instructors and classmates via e-mail or through discussion forums. A personal computer, specific hardware and software requirements, online access through an Internet Service Provider (ISP) and a Harper email account are necessary. Campus visits for orientation and proctored testing may be required. Harper uses Blackboard (http:// harper.blackboard.com) for courses offered via distance delivery.

Other distance learning options include selecting from a broad range of courses offered from other Illinois colleges and universities through the Internet Course Exchange (http:// www.ilcco.net/ice2) and the Illinois Virtual Campus (IVChttp:// www.ivc.illinois.edu_blank). Discussion with a Harper counselor prior to registration is advised as students who want to enroll in courses delivered from these sources must follow specific procedures.

For information about current distance learning courses offered at Harper College, call 847.925.6586 or visit Harper Online at harpercollege.edu/distancelearning.

## Diversity Requirement

Effective Fall 2005, all of our degrees require a student to successfully complete a World Culture and Diversity course as a graduation requirement. The courses listed below have met the standards set by the College to be designated as a World Culture course.

ANT - 101, 202, 203, 206, 207
ARC -223
ART - 133
DIT - 205
DIV - 101
EDU - 220
FAS - 110
FRN - 205, 210
GEG - 100, 101, 103, 104
GER - 205, 210, 230
HED -200, 202, 204
HMS - 121
HST - 121, 210, 214, 231, 232, 241, 242, 243, 245
HUM - 104, 106, 107, 110, 125
LNG - 205
LIT - 208, 220, 223, 224
MUS - 104
PHI-160, 190, 205, 215
PSC - 250, 260, 270, 280

SCM - 230
SGN-210
SOC - 101, 120, 205, 215, 230, 235
SPA - 205, 210
SPE - 121

## English as a Second Language

English as a Second Language (ESL) courses are for individuals who are native speakers of another language and who need to improve their English language skills for academic or employment purposes. Courses are offered for credit at beginning, intermediate and advanced levels. Both an intensive English program and part-time program are offered.

The ESL/Linguistics Department serves students from any language background. Some students are referred to the department from the Harper College assessment program. Student educational backgrounds range from nine grades completed through completion of graduate/professional programs. Students with fewer than nine years of education are referred to the Adult Educational Development Department for enrollment in the Nonnative Literacy Program.

Students are tested during registration and counseled for appropriate program and course placement. For more information, contact the department office in Building F, Room F340, or call 847.925.6226.

## Intensive English Program

The Intensive English Program (IEP) at Harper College is dedicated to providing excellent comprehensive English language instruction for postsecondary students whose primary language is not English. Professionals in the field of teaching English to speakers of other languages (TESOL) will utilize proven English language teaching methods to prepare students for further academic study in the U.S. This learner-centered program is offered on a full-time basis for both international students and residents of the U.S.

Students completing the final level of the Intensive English Program are able to enroll in the highest-level English as a Second Language (ESL) reading and writing courses at Harper College while also enrolling in selected degree credit courses. Upon successful completion of these reading and writing courses, students will have the academic English language skills needed for success in all degree credit courses offered by Harper College and may enroll in any degree credit courses and programs for which they meet the prerequisites.

This program meets the DHS requirements for students on student visas. It is accredited by the Commission on English Language Program Accreditation (CEA) and agrees to uphold the CEA Standards for English Language Programs. For further information about this accreditation, please contact the Commission on English Language Program Accreditation, 1725
Duke St., Suite 500, Alexandria, VA 22314, 703.519.2070.

## English Language Program

The English Language Program (ELP) is for those students who wish to improve their English language skills for educational, professional or employment reasons on a part-time basis. Depending on their proficiency level, students may enroll in one or more classes, including integrated skills courses, as well as courses in reading, writing, grammar, conversation, TOEFL preparation and other supplemental courses. Students at the
higher levels in this program may also enroll in other appropriate college courses.

## General Education

General education is that part of the college education that provides students with the foundations essential to lead personally fulfilling and responsible lives as productive citizens. General education cultivates the knowledge, skills and attitudes that educated persons use to shape their lives. It fosters the desire and capacity to continue learning throughout life. A general education "produces persons who are open-minded and free from provincialism, dogma, preconception and ideology; conscious of their opinions and judgments; reflective of their actions; and aware of their place in the social and natural worlds."

An educated person is able to think clearly, communicate effectively, make reasoned and ethically aware judgments, respect human diversity and connect and apply fields of knowledge. These general abilities are required by all areas of specialization. The breadth of general education complements the rigor and depth of specialized education.

If education is a journey, as many have conceived it, then the curriculum is a map. The Harper College general education curriculum requirements provide a selection of diverse courses. Following the map of general education ensures that a student's education is a coherent, comprehensive journey.

## World Cultures and Diversity Requirement

New students entering or using the 2005 or later catalogs to meet graduation requirements must meet a World Culture and Diversity Requirement. The courses identified as satisfying this requirement include components designed to raise awareness, appreciation and understanding of one or more of the ways in which diversity is reflected in the global society.

## Graduation Requirements

1. For associate degrees, attainment of a minimum of 60-67 semester hours of credit, at least 18 of which must be earned in attendance at Harper College and be in courses numbered 100 or above. For certificates of completion, 50 percent of required credit hours must be earned at Harper. Up to two hours credit in physical education activity courses (100 level) may be included as free electives in the minimum 60 required hours for an associate degree, excluding the AGS degree. A maximum of four semester hours of Independent Study credit may be included as free electives in the minimum 60 required hours for an associate degree.
2. In order to earn an associate degree, students must attain a minimum cumulative grade point average (GPA) of 2.0. Attainment of a minium GPA of 2.0 for any applicable course work is required for all certificate programs.
3. Requirement of 60 hours must be in courses numbered 100 or above for the degrees of Associate in Arts, Associate in Science, Associate in Fine Arts, Associate in General Studies or Associate in Engineering Science. (Courses below 100 level may be used only where an AAS program allows.)
4. Fulfillment of appropriate associate degree requirements as listed in the College Catalog at the time the student first enrolled or any catalog thereafter except for courses no longer offered.

Effective Fall 2009, students have a maximum of 10 years to complete requirements from the catalog edition
under which they first enrolled. Students who do not complete requirements within 10 years must upgrade to the next available catalog edition. Students may choose to upgrade to a more recent catalog edition at any time; however, curricular degree requirements of more than one catalog edition cannot be combined to complete degree requirements without the written permission of the Assistant Provost or designee.

Students who are already admitted into or are in the process of fulfilling requirements for a career degree or certificate program under their original catalog may be required to upgrade to a more recent catalog edition, due to updates in industry, licensing, and/or accreditation standards.

Students who fail to complete their degree or certificate within the 10-year limit should meet with a Student Development counseling faculty member to determine if an extension can be granted or to help decide which catalog edition best meets their academic and career goals.
5. Fulfillment of a World Cultures and Diversity Requirement. Students seeking an associate degree using the 2005 Academic Catalog and thereafter must satisfactorily complete a three credit hour World Cultures and Diversity course. Fulfillment of this requirement for one associate degree and/or program of study does not guarantee it has been met for another.
6. A student must apply for graduation in the Registrar's Office or online at www.harpercollege.edu no later than one week after the midterm of the semester in which the student intends to graduate. Students are encouraged to participate in the formal graduation ceremony in May which includes fall, spring and summer graduates. Students are encouraged to complete their application for graduation when registering for the semester in which their graduation requirements will be fulfilled.

## Honors Program

Harper College seeks to stimulate, encourage and recognize work of depth, scope and originality by its students. A balanced curriculum of honors courses is offered in the major areas required for the General Education component of associate degrees.

Honors students enjoy the benefit of reduced class size and the challenge of social and intellectual interaction with other high achieving students while they acquire the breadth of understanding and develop leadership qualities that such settings enhance.

All honors courses are noted as such on the transcript. Additionally, upon fulfilling all other degree requirements, students who complete at least 12 hours of honors course work (which must include either HUM 105 or HST 105) and maintain a GPA of 3.25 or higher will be designated as Honors Program graduates. (The HUM 105/HST 105 requirement went into effect spring of 2003 and applies only to those students entering Harper in or after the fall of 2001.)

To be admitted to honors classes, students must meet specified criteria, complete an honors application and have an interview with the coordinator of honors. Applications are available in the Office of Admissions, the Division offices and the Counseling Centers.

The College also offers several scholarships based primarily on academic achievement. Scholarship information is in the Office of Student Financial Assistance.

## International Studies Program

The mission of the International Studies Program at Harper College is to develop international awareness through collaborative programs that enhance knowledge of global dynamics, cultural diversity, and world issues for students, faculty, staff, and the surrounding community. International Studies is committed to educating students for leadership in an increasingly complex global society. The programs and services provided will enrich faculty, staff, and the Harper College community. International Studies comprises campus programs, international visitors, and study abroad. Through its programs, International Studies serves as a valuable resource to the college and surrounding communities to celebrate the many contributions of the world's cultures and traditions, and fosters the continuing global education of its citizenry.

Harper College belongs to a consortium of 40 area colleges and universities that provides semester abroad programs for students. The Illinois Consortium for International Studies and Programs (ICISP) offers academic programs at reasonable cost and allows qualified students to take advantage of the unique educational experience afforded through study in another country. Currently, semester programs are available in Canterbury, England; Salzburg, Austria; Seville, Spain; Carlow, Ireland, and Xi'an, China. Summer programs are also available in San Jose, Costa Rica; Dijon, France; Sydney, Australia; Madrid, Spain; Kyoto, Japan; Munich, Germany; and Tangier, Morocco. Programs led by Harper College faculty change every semester.

To be eligible to study abroad, a student must have completed 15 credit hours with a 2.75 grade point average. Contact the Study Abroad Coordinator at 847.925 .6522 for more information. Further information about all of our programs is available at www.dept.harpercollege.edu/international

## Student Development Courses and Seminars

## Credit Courses

Several different classroom experiences are offered for academic credit by the Student Development Division. First Year Experience (FYE 101) provides exposure to strategies necessary to adapt to the college environment and assists students in developing initial career and educational goals. Humanistic Psychology (PSY 107) facilitates personal growth and development through the exploration of self-understanding, confidence, motivation, clarification of goals and relationships. Topics in Psychology (PSY 108) allows students the opportunity to examine current issues. Topics covered during a particular semester are listed in the semester course schedule. Career Development (CDV 110) provides students with the opportunity to explore career interests, experiences, skills, abilities and work related values and examine information about the world of work in order to develop educational and career goals. Exploring Diversity in the United States (DIV 101) focuses on culture and other diversity issues and topics; students will have the opportunity to discuss dimensions of their own cultures and cultures of others as well as examine discrimination and prejudice between groups and the impact of these power differences on people's lives.

## Noncredit Seminars

Noncredit group seminars on a variety of topics are also offered each semester. Mailings, posters and brochures will inform students of these offerings. Students may request additional information by visiting any of the Student Development Centers.

## Transfer Agreements

## Illinois Articulation Initiative

Harper College is a participant in the Illinois Articulation Initiative (IAI), a statewide articulation effort to help Illinois college students transfer easily. This effort involves public community colleges, public universities and private colleges and universities, and includes the articulation of lower-division general education and major field courses. This agreement is in effect for students entering college as first-time freshmen in summer of 1998 (and thereafter). The following summary highlights the major features of the initiative.

1. One of the main features of the $I A I$ is the General Education Core Curriculum and a list of statewide articulated general education courses that will be accepted for transfer by all participating colleges and universities in Illinois.
a. Students who complete the A.A. or A.S. degree that contains the General Education Core Curriculum at a community college will have their lower-division general education core requirements satisfied at the participating Illinois college or university to which they transfer.
b. Students who complete the General Education Core Curriculum at any participating college or university in Illinois will have their lower-division general education requirements met upon transfer to another participating college or university in Illinois.
c. Students who have 30 semester credits of college level coursework can transfer to an IAI participating institution and have the option of completing the institution's lower-division general education requirements or the IAI General Education Core Curriculum.
d. The General Education Core Curriculum and the list of statewide articulated general education courses will be a great advantage for students who are undecided about what university they want to attend after transfer, as well as for students who are undecided about their major because the "core" will transfer to all participating colleges and universities in Illinois.
2. Another main feature of the initiative is a program guide and list of statewide articulated lower-division courses for each baccalaureate degree major field that will transfer and satisfy major field requirements at participating colleges or universities in Illinois that offer that degree.
3. The General Education Core Curriculum, the program guides for the major fields and the statewide list of articulated courses will greatly help counselors and advisors provide accurate information on the articulation of courses to students planning to transfer.

See the IAI Web site at IAIWww.iTransfer.org_blank for more information.

## IAI General Education Core Curriculum Requirements

The IAI General Education Core Curriculum consists of courses that colleges and universities consider essential for students' success in college and life. Students are permitted to transfer this portion of an associate or a bachelor's degree program from one participating institution to another without loss of credit and with assurance that lower-division general education requirements have been satisfied. The curriculum comprises about two-thirds of an associate degree and about one-third of a bachelor's degree. This transferable curriculum is included within Harper's 1998 (and thereafter) A.A. and A.S. degrees.

## Specifically, the General Education Core Curriculum requires:

## Communications

- 3 courses ( 9 semester credits) Must include a two-course sequence in writing completed with grades of $C$ or better ( 6 semester credits) and one course ( 3 semester credits) in oral communication.


## Mathematics

- 1 to 2 courses (3-6 semester credits)


## Physical and Life Sciences

- 2 courses (7-8 semester credits) Must include one course selected from the life sciences and one course from the physical sciences. One course must be a lab.


## Humanities and Fine Arts

- 3 courses ( 9 semester credits) Must include at least one course selected from humanities and at least one course from the fine arts.


## Social and Behavioral Sciences

- 3 courses (9 semester credits) Must include courses selected from at least two disciplines.


## TOTAL: 12-13 courses (37-41 credits)

Refer to specific approved courses under course descriptions listed in the catalog or see the IAI Web site at IAlwww.iTransfer.org_blank.

## Illinois Articulation Initiative Transcripting Requirements

As a participant of the Illinois Articulation Initiative (IAI), Harper College requires the following for completion of the core to be noted on the official transcript:

1. Initial enrollment date at an IAI participating institution effective summer 1998 (and thereafter).
2. Completion of the Associate in Arts (A.A.) or Associate in Science (A.S.) degree starting with the 1998-99 catalog and/or completion of the General Education Core Curriculum requirements and attainment of a minimum of 37 semester hours.
3. Attainment of a minimum cumulative grade point average of 2.0.
4. Students who are completing a degree under these requirements will have completion of the core transcripted at the time of the degree certification.
5. Students who are not completing a degree must formally request the Registrar's Office to certify the completion of the core by submitting a "Petition to Certify the Illinois Transferable Education Core Curriculum."

## Transfer Compact Agreements

Some four-year colleges accept the Associate in Arts or Associate in Science degrees as meeting all lower division general education requirements and grant automatic junior standing upon transfer. Students may have to meet additional requirements for some majors at these colleges. Contact a Student Development Center for more information. Schools with which Harper has a compact agreement are:

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


## Transfer Options

An important role of a community college is to provide plans of study to allow students to complete the requirements for the first two years of a baccalaureate degree. Harper defines these plans as transfer options. In most cases, students are better served by earning the associate in arts, associate in science, associate in engineering science, associate in fine arts-art or associate in fine arts-music before transfer. Individual baccalaureate-oriented credits earned at Harper are also transferable to other institutions of higher learning.

As a guide for students, sample plans that meet Harper degree requirements are available in the Student Development Centers and on the Harper College website. These plans include general freshman and sophomore level course work to prepare for transfer into specific baccalaureate majors. These guides are "samples" as transfer institution requirements may vary. Students are responsible for knowing the specific requirements of the institutions they are considering for transfer and should consult with those institutions directly.

In addition, students should see a Harper Student Development counselor to discuss their transfer plans prior to registering for courses each semester. Resource materials and counseling assistance are available in Harper's Student Development Centers in Building I, Room 1117, Building D, Room D142 and the Student Center, Room A347.

## Other Transfer Agreements

In addition to the IAI and Compact Agreement, Harper College has developed course transfer guides or agreements with the following public and private colleges and universities. Those designated (DD) represent dual degree partnerships and include benefits such as guaranteed admission and locked-in tuition and degree requirements at the 4 -year institution. Benefits vary per partnership and apply only to students meeting specified requirements.

- American InterContinental University
- Argosy University
- Arizona State University
- Arkansas State University
- Ashford University
- Aurora University
- Benedictine University
- Bradley University
- Brigham Young University
- California University of Pennsylvania
- Carthage College
- Chancellor University
- Columbia College - Chicago
- Concordia University
- DePaul University (DD)
- DeVry University
- Dominican University
- Elmhurst College
- Ferris State University
- Fort Lewis College, Colorado
- Franklin University
- Gallaudet University
- Governors State University (DD)
- Harrington Institute
- Hawaii Pacific University
- Illinois Institute of Art
- Illinois Institute of Technology
- Indiana State University
- Indiana University - Bloomington
- Indiana Wesleyan University
- International Academy of Design and Technology
- Iowa State University
- Judson University
- Kansas State University
- Kaplan University
- Kendall College
- Lake Forest College
- Lewis University
- Lexington College
- Loyola University of Chicago
- Marquette University
- McKendree University
- Michigan State University
- Michigan Technological University
- Midwestern University
- Millikin University
- Milwaukee School of Engineering
- Monmouth College
- National-Louis University
- National University of Health Sciences
- North Central College
- North Park University
- Northern Michigan University
- Northwestern University - School of Continuing Studies
- Northwood University
- Olivet-Nazarene University
- Palmer College of Chiropractic
- Peirce College
- Purdue University
- Quincy University
- Rasmussen University (DD)
- Regis University
- Resurrection University
- Robert Morris University
- Rockford College
- Roosevelt University (DD)
- Rush University
- San Diego State University
- St. Anthony College of Nursing
- St. Joseph's College
- St. Xavier University
- State University of New York - Canton
- Trinity International University
- Truman State University
- University of Hawaii - Manoa
- University of Illinois - Chicago
- University of Illinois - Online
- University of Illinois - Urbana/Champaign (DD - Engineering)
- University of lowa
- University of Kansas
- University of Kentucky
- University of Maryland
- University of Maryland University College
- University of Michigan
- University of Minnesota - Twin Cities
- University of Missouri - St. Louis
- University of New Mexico
- University of North Carolina - Chapel Hill
- University of Phoenix
- University of St. Francis
- University of Wisconsin - Green Bay
- University of Wisconsin - Madison
- University of Wisconsin - Oshkosh
- University of Wisconsin - Platteville
- University of Wisconsin - Stout
- University of Wisconsin - Whitewater
- Valparaiso University

Contact the Student Development Center in Building D, Room D142, Building I, Room I117, or in the Student Center, Room A347, for more information.

## Requirements for Associate in Arts Degree A.A.

These requirements apply to students who first enrolled for Spring 2014 or later. Students who first enrolled prior to Spring 2014 should obtain the appropriate sheet of requirements from a Student Development Center.

| 2013-14 IAI Core Curriculum | Hours Required | Harper Courses |
| :---: | :---: | :---: |
| Group 1 Communications <br> 3 courses. <br> A grade of $C$ or better is required for ENG 101 and 102. | 9 | ENG 101, 102; SPE 101 |
| Group 2 Mathematics 1 to 2 courses. | 3-6 | MGT 225 or MTH 162 or MTH 165¹, 101, 124², 131, 134 or 200, 201, 202, 220 |
| Group 3 Physical and Life Sciences 2 courses with 1 course from the Life Sciences and 1 from the Physical Sciences. 1 course must be a lab science (marked with an *). | 7-8 | Life Science: BIO 101, 103, 104*, 105, 110*, 120*, 136, 140*, 150*, 160*; DIT 101 <br> Physical Science: AST 100, 101*, 112*, 115*; CHM 100*, 103*, 105*, <br> 110*, 121*; GEG 111, 112*; GEO 101*, 103*; PHS 101, 105*, 111*, 112*, 115*, 170+; PHY 100, 121*, 201* |
| Group 4 Humanities and Fine Arts <br> 3 courses with at least 1 course selected from the Humanities and at least 1 from the Fine Arts. Interdisciplinary courses may be used for both categories. <br> Courses marked with a + meet the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation. | 9 | Humanities: CHN 202 or FRN 202 or GER 202 or JPN 202 or SGN $210^{+}$ or SPA 202; HST 105 or HUM 105; HUM 104+, 120, 125+; LIT 105, 110, 115, 206, 207, 208+, 210, 220+, 221, 222, 223+ ${ }^{+}$224 ${ }^{+}$, 231, 232; PHI 101, 105, 115, $160^{+}, 205^{+}, 215^{+}, 220,231,232$; FRN $210^{+}$or GER $210^{+}$or SPA $210^{+}$ <br> Fine Arts: ART 105, 114, 130, 131 or 132, 133+; MUS 103, 104+, 120; SPE 111, 121+ <br> Interdisciplinary: HUM 101, 102, 107+ ${ }^{+}$110+; LIT 112 |
| Group 5 Social and Behavioral Sciences <br> 3 courses with courses selected from at least 2 departments. May not choose SOC 215 and two PSY courses. <br> Courses marked with a + meet the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation. | 9 | ANT $101^{+}, 202^{+}, 205,206^{+}$; ECO 200, 211, 212; GEG $100^{+}$or $101^{+}$, $103^{+}$, 104+, 210 ; HST 111, 112, 121+, 141, 142, 231+, 232 ${ }^{+}$, $241^{+}, 242^{+}, 243^{+}$, 245+; PSC 101, 220, 250 ${ }^{+}$, 270+, 280+; PSY 101, 216, 217, 218, 228; SOC 101+, $120^{+}, 205^{+}, 215^{+}, 230^{+}, 235^{+}$ |
| Total General Education <br> No more than two GEG and two HST courses (except HST 105) may be used to fulfill Groups 1-5. | 37-41 |  |
| Group 6 Special Electives | 6 | Creative Expression: ART 110, 111, 121, 122, 201, 206, 225, 236, 150, 151, 261, 281, 291, 296; MUS 101, 102, 130, 136, 140, 145, 150, 165, 166, 167, 169, 265, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299; SPE 107, 212, 216 <br> Languages: CHN 101, 102, 201; FRN 101, 102, 201; GER 101, 102, 201; JPN 101, 102, 201; SGN 101, 102; SPA 101, 102, 112, 113, 201 <br> Wellness: ECE 250; HED 200+, 201, 204+; KIN 120, 203 <br> Work and Life Skills: CAS 160; CDV 110; CIS 100, 101; CSC 121, 208, 214; DIT 205+; DIV 101; ECO 115; FYE 101; GRA 101; MGT 111, 160, 170, 204; PHI 150; PSY 106, 107; SPA 121, 122; SPE 200, 205 |


| 2013-14 IAI Core Curriculum | Hours <br> Required | Harper Courses |
| :--- | :---: | :--- |
| Group 7 Approved Electives | 17 | Courses must be selected from: <br> 1. Additional credit hours from Groups 1-6 from the A.A. or A.S. degree <br> 2. Credit hours from approved elective courses |

## Requirements for Associate in Science Degree A.S.

These requirements apply to students who first enrolled for Spring 2014 or later. Students who first enrolled prior to Spring 2014 should obtain the appropriate sheet of requirements from a Student Development Center.

| 2013-14 IAI Core Curriculum | Hours Required | Harper Courses |
| :---: | :---: | :---: |
| Group 1 Communications <br> 3 courses. <br> A grade of $C$ or better is required for ENG 101 and 102. | 9 | ENG 101, 102; SPE 101 |
| Group 2 Mathematics 2 courses. | 6 | MGT 225 or MTH 162 or MTH 165¹, 124², 131, 134 or 200, 201, 202, 220 |
| Group 3 Physical and Life Sciences <br> 2 courses with 1 course from the Life Sciences and 1 from the Physical Sciences. 1 course must be a lab science (marked with an *). With appropriate prerequisites an initial course for science majors or advanced level course may be substituted. | 8 | Life Science: BIO 101, 103, 104*, 105, 110*, 120*, 136, 140*, 150*, 160*; DIT 101 <br> Physical Science: AST 100, 101*, 112*, 115*; CHM 100*, 103*, 105*, 110*, 121*; GEG 111, 112*; GEO 101*, 103*; PHS 101, 105*, 111*, 112*, 115*, 170*; PHY 100, 121*, 201* |
| Group 4 Humanities and Fine Arts <br> 3 courses with at least 1 course selected from the Humanities and at least 1 from the Fine Arts. Interdisciplinary courses may be used for both categories. <br> Courses marked with a + meet the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation. | 9 | Humanitites: CHN 202 or FRN 202 or GER 202 or JPN 202 or SGN $210^{+}$ or SPA 202; HST 105 or HUM 105; HUM 104+, 120, 125+; LIT 105, 110, 115, 206, 207, 208 ${ }^{+}$, 210, $220^{+}, 221,222,223^{+}, 224^{+}, 231,232$; PHI 101, 105, $115,160^{+}, 205^{+}, 215^{+}, 220,231,232$; FRN $210^{+}$or GER $210^{+}$or SPA $210^{+}$ <br> Fine Arts: ART 105, 114, 130, 131 or 132, 133+; MUS 103, 104 ${ }^{+}$, 120; SPE 111, 121+ <br> Interdisciplinary Studies: HUM 101, 102, 107+, 110+; LIT 112 |
| Group 5 Social and Behavioral Sciences <br> 3 courses with courses selected from at least two departments. May not choose SOC 215 and two PSY courses. <br> Courses marked with a + meet the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation. | 9 | ANT $101^{+}, 202^{+}, 205,206+$ E ECO 200, 211, 212; GEG $100^{+}$or $101^{+}, 103^{+}$, 104+ 2 210; HST 111, 112, 121+, 141, 142, $231^{+}, 232^{+}, 241^{+}, 242^{+}, 243^{+}$, 245+; PSC 101, 220, 250+, 270+, 280+; PSY 101, 216, 217, 218, 228; SOC $101^{+}, 120^{+}, 205^{+}, 215^{+}, 230^{+}, 235^{+}$ |
| Total General Education <br> No more than two GEG and two HST courses (except HST 105) may be used to fulfill Groups 1-5. | 41 |  |
| Group 6 Special Electives | 3 | Creative Expression: ART 110, 111, 121, 122, 201, 206, 225, 236, 150, 151, 261, 281, 291, 296; MUS 101, 102, 130, 136, 140, 145, 150, 165, 166, 167, 169, 265, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299; SPE 107, 212, 216 <br> Languages: CHN 101, 102, 201; FRN 101, 102, 201; GER 101, 102, 201; JPN 101, 102, 201; SGN 101, 102; SPA 101, 102, 112, 113, 201 <br> Wellness: ECE 250; HED 200+ 201, 204+; KIN 120, 203 <br> Work and Life Skills: CAS 160; CDV 110; CIS 100, 101; CSC 121, 208, 214; DIT 205+; DIV 101+; ECO 115; FYE 101; GRA 101; MGT 111, 160, 170, 204; PHI 150; PSY 106, 107; SPA 121, 122; SPE 200, 205 |


| 2013-14 IAI Core Curriculum | Hours Required | Harper Courses |
| :---: | :---: | :---: |
| Group 7 Approved Electives <br> At least six hours, 100 level or above, must be selected in mathematics, science or computer science (CSC only). | 20 | Courses must be selected from: <br> 1. Additional credit hours from Groups 1-6 from the A.A. or A.S. degree <br> 2. Credit hours from approved elective courses <br> 3. Up to 10 credits hours from 100 to 200 level courses not included in 1. and 2. above <br> 4. Up to two hours of 100-level KIN activity courses may be used to fulfill degree requirements <br> 5. Up to four hours of Independent Study credit <br> ACC 101, 102, 201, 202, 203, 211, 212, 213; ANT 203+ ${ }^{+}$207+ $, ~ 208,209$, 215, 220, 250, 255; ART 100, 280; AST 150, 201; BIO 130*, 135, 161; CHM 122, 125, 201, 204, 205, 220, 295, 296, 297; CSC 122, 211, 216, 217; DIT 110; ECE 101, 102, 252, 291; ECO 210; EDU 201, 202, 211, 219, $220^{+}, 230,250,290$; EGR 100, 120, 121, 212, 260, 262, 270; ENG 103, 130, 200, 201, 220, 221, 222, 230; FRN 205+; GEG 151, 152; GEO 102, 201; GER 205+, 230+; HED 202+, 203; HST 151, 152, 153, 202, $210^{+}$, 212, 214+, 219, 261, 270, 281, 282; HUM 106+, 115; IDS 290; JPN 205; KIN 200, 202, 204, 205, 206, 207, 208, 209, 210, 211, 212, 220, 221, 222, 223, 224, 230, 231, 232; LEJ 101, 201, 202, 205, 210; LIT 215, 216, 217, 219, 241, 250; LNG 105, 205 ${ }^{+}$, 220; MCM 120, 126, 130, 131, 141; MGT 218, 275; MKT 245; MTH 103, 130, 140, 203, 212, 265; MUS 106, 107, 111, 112, 115, 116, 211, 212, 215, 216, 223, 224, 266, 271, 272; PHI 102, 120, 170, 180, 190+, 210; PHY 122, 202, 203; PSC 210, 260+; PSY 108, 210, 220, 225, 230, 235, 245; RDG 106; SGN 103, 104, 201, 202, 205, 212; SOC 210, 220; SPA 205+; SPE 102, 180, 181, 182, 183, 190, 191, 192, 193, 213 |
| World Cultures and Diversity Requirement One 3-credit hour course is required. Courses that fulfill this requirement may also be used to fulfill requirements in Groups 4-7. |  | Select one course marked with a + from the above Groups. |
| Total Hours Required | 64 |  |
| Credit will not be granted for both MGT 225 and MTH 162 and MTH 165, only one.MTH 124 may be used if taken Spring 1999 or later. |  |  |

## Requirements for Associate in Arts in Teaching A.A.T.

These requirements apply to students who first enrolled for Fall 2013 or later. Students who first enrolled prior to Fall 2013 should obtain the appropriate sheet of requirements from a Student Development Center.

## Admission Requirements

For admission requirements, please contact the Admissions Outreach Office at $\mathbf{8 4 7 . 9 2 5 . 6 7 0 0}$ or visit harpercollege.edu
Students who apply for this program are obligated to meet current admission requirements and follow the program curriculum as defined at the time of acceptance into the program. Students must meet with a Student Development advisor or the Education department chair to determine the appropriateness of this degree option before being allowed to enroll in the program. Students accepted into this program will be required to meet with their assigned advisor each semester prior to registration to assess progress and determine course selection.

| 2013-14 IAI Core Curriculum | Hours Required | Harper Courses |
| :---: | :---: | :---: |
| Group 1 Communications <br> 3 courses. <br> A grade of $C$ or better is required for ENG 101 and 102. | 9 | ENG 101, 102; SPE 101 |
| Group 2 Mathematics | 5 | MTH $200{ }^{1}$ |
| Group 3 Physical and Life Sciences 2 courses with 1 course from the Life Sciences and 1 from the Physical Sciences. 1 course must be a lab science (marked with an *). | 7-8 | Life Science: BIO 101, 103, 104*, 105, 110*, 120*, 135, 136, 140*, 150*, 160*; DIT 101 <br> Physical Sciences: AST 100, 101*, 112*, 115*; CHM 100*, 103*, 105*, <br> 110*, 121*; GEG 111, 112*; GEO 101*, 103*; PHS 101, 105*, 111*, 112*, <br> 115*, 170+; PHY 100, 121*, 201* |
| Group 4 Humanities and Fine Arts <br> 3 courses with at least 1 course selected from the Humanities and at least 1 from the Fine Arts. Interdisciplinary courses may be used for both categories. <br> Harper College's diversity requirement must be selected from Group 4 or 5 (marked with $\mathrm{a}+$ ). | 9 | Humanities: CHN 202 or FRN 202 or GER 202 or JPN 202 or SGN $210^{+}$ or SPA 202; HST 105 or HUM 105; HUM 104+, 120, 125+; LIT 105, 110, 115, 206, 207, 208+, 210, 220+, 221, 222, 223+ ${ }^{+}$224 ${ }^{+}$, 231, 232; PHI 101, 105, $115,160^{+}, 205^{+}, 215^{+}, 220,231,232$; FRN $210^{+}$or GER $210^{+}$or SPA $210^{+}$ <br> Fine Arts: ART 105, 114, 130, 131 or 132, 133+; MUS 103, 104+, 120; SPE 111, $121^{+}$ <br> Interdisciplinary Studies: HUM 101, 102, 106+ 107 $^{+}$, $110^{+}$; LIT 112 |
| Group 5 Social and Behavioral Sciences 3 courses with courses selected from at least 2 departments. May not choose SOC 215 and two PSY courses. HST 111 or HST 112, PSC 101, and PSY 101 are strongly recommended as they meet the requirements for Illinois secondary certification. <br> Harper College's diversity requirement must be selected from Group 4 or 5 (marked with $\mathrm{a}+$ ). | 9 | ANT $101^{+}, 202^{+}, 205,206^{+}$; ECO 200, 211, 212; GEG $100^{+}$or $101^{+}, 103^{+}$, <br> 104+, 210 ; HST 111, 112, 121+, 141, 142, 231+ ${ }^{+} 232^{+}, 241^{+}, 242^{+}, 243^{+}$, <br> 245+; PSC 101, 220, 250 ${ }^{+}$, 270+, 280+; PSY 101, 216, 217, 218, 228; <br> SOC $101^{+}, 120^{+}, 205^{+}, 215^{+}, 230^{+}, 235^{+}$ |
| Total General Education | 39-40 |  |
| Group 6 Professional Education Courses 3 courses, EDU 201 is required. | 9 | ECE 102; EDU 201, 211, 219, 250 |
| Group 7 Mathematics Major Courses 3 courses, all are required. | 14 | MTH 201, 202, 203 |
| World Cultures and Diversity <br> Requirement <br> One course is required. <br> Select one course marked with a + from <br> Group 4 or 5 . <br> Courses that fulfill this requirement may also be used to fulfill requirements in Group 4 or 5. |  | Select one course marked with a + from the above Groups. |
| Total Hours Required | 62-63 |  |
| MTH 200 prerequisite: MTH 070 (or equivalent) with a grade of $C$ or better or Geometry placement test and MTH 140 with a grade of $C$ or better or placement test or consent of Mathematics Department chair. An ACT Math score of 28 or more and a trigonometry course with a grade of C or better will satisfy all the previous prerequisites mentioned for this course. |  |  |

## Requirements for Associate in Engineering Science A.E.S.

These requirements apply to students who first enrolled for Fall 2013 or later. Students who first enrolled prior to Fall 2013 should obtain the appropriate sheet of requirements from a Student Development Center.
Completion of the Associate in Engineering Science degree does not fulfill the requirements of the Illinois General Education core curriculum. After transfer, AES students will need to complete the general education requirements of the institution to which they transfer.
No more than two GEG and two HST courses (except HST 105) may be used to fulfill Groups 1-6.

| 2013-14 IAI Core Curriculum | Hours Required | Harper Courses |
| :---: | :---: | :---: |
| Group 1 Communications <br> 2 courses <br> A grade of $C$ or better is required for ENG 101 and 102 | 6 | ENG 101, 102 |
| Group 2 Mathematics | 18 | MTH 200, 201, 202, 212 |
| Group 3 Computer Science <br> Computer Science elective should be chosen based on engineering specialty and requirements of institution to which students transfer. | 4 | CSC 121, 208 |
| Group 4 Physical and Life Sciences | 15 | CHM 121; PHY 201, 202 |
| Group 5 Humanities and Fine Arts Minimum of 3 hours required from Group 6. Must have a minimum of 9 hours from Humanities and Fine Arts and Social and Behavioral Sciences combined. <br> A two-semester sequence in the same discipline from either the Humanities/Fine Arts or the Social/Behavioral Sciences is recommended. <br> Courses marked with a + meet the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation and must be from either the Humanities/Fine Arts or the Social Behavioral Sciences. | 3-6 | Humanities: CHN 202 or FRN 202 or GER 202 or JPN 202 or SGN $210^{+}$ or SPA 202; HST 105 or HUM 105; HUM 104+, 120, 125+; LIT 105, 110, 115, 206, 207, 208+ $210,220^{+}, 221,222,223^{+}, 224^{+}, 231,232$; PHI 101, 105, 115, $160^{+}, 205^{+}, 215^{+}, 220,231,232$; FRN $210^{+}$or GER $210^{+}$or SPA $210^{+}$ <br> Fine Arts: ART 105, 114, 130, 131 or 132, 133+; MUS 103, 104 ${ }^{+}$, 120; SPE 111, $121^{+}$ <br> Interdisciplinary Studies: HUM 101, 102, 106+, 107+ ${ }^{+}$110+; LIT 112 |
| Group 6 Social and Behavioral Sciences Minimum of 3 hours required from Group 5. Must have minimum of 9 hours from Humanities and Fine Arts and Social and Behavioral Sciences combined. <br> A two-semester sequence in the same discipline from either the Humanities/Fine Arts or the Social/Behavioral Sciences is recommended. <br> Courses marked with a + meet the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation and must be from either the Humanities/Fine Arts or the Social Behavioral Sciences. | 3-6 | ANT $101^{+}, 202^{+}, 205,206^{+}$; ECO 200, 211, 212; GEG $100^{+}$or $101^{+}, 103^{+}$, 104+, $210 ;$ HST 111, 112, 121+, 141, 142, $231^{+}, 232^{+}, 241^{+}, 242^{+}, 243^{+}$, 245+; PSC 101, 220, 250 ${ }^{+}$, 270+ ${ }^{+}$280+'; PSY 101, 216, 217, 218, 228; SOC 101+, $120^{+}, 205^{+}, 215^{+}, 230^{+}, 235^{+}$ |
| Group 7 Engineering <br> Specialty courses approved in consultation with the engineering department chair. | 16 | $\begin{aligned} & \text { EGR 100, 120, 210, 211, 212, 240, 260, 262, 270; CHM 122, 204, } 205 \text {; } \\ & \text { PHY } 203 \end{aligned}$ |
| World Cultures and Diversity <br> Requirement <br> One 3-credit hour course is required. <br> Courses that fulfill this requirement may also be used to fulfill requirements in Groups 5-6. |  | Select one course marked with a + from the above Groups. |
| Total Hours Required | 68 |  |

## Requirements for Associate in Fine Arts Degree A.F.A.

These requirements apply to the Associate in Fine Arts-Art Emphasis degree.
These requirements apply to students who first enrolled for Fall 2013. Students who first enrolled prior to Fall 2013 should obtain the appropriate sheet of requirements from a Student Development Center.
Completion of the Associate in Fine Arts-Art degree does not fulfill the requirements of the Illinois General Education core curriculum. After transfer, Associate in Fine Arts-Art students will need to complete the general education requirements of the institution to which they transfer.

|  | Hours <br> Required | Harper Courses |
| :--- | :---: | :--- |
| 2013-14 IAI Core Curriculum | 9 |  |
| Group 1 Communications <br> 3 courses |  | ENG 101, 102; SPE 101 | | A grade of C or better is required for ENG |
| :--- |
| 101 and 102. |

[^1]
## Requirements for Associate in Fine Arts Degree A.F.A.

These requirements apply to the Associate in Fine Arts-Music Emphasis degree.
These requirements apply to students who first enrolled for Fall 2013. Students who first enrolled prior to Fall 2013 should obtain the appropriate sheet of requirements from a Student Development Center.
Completion of the Associate in Fine Arts-Music degree does not fulfill the requirements of the Illinois General Education core curriculum. After transfer, Associate in Fine Arts-Music students will need to complete the general education requirements of the institution to which they transfer.

| 2013-14 IAI Core Curriculum | Hours Required | Harper Courses |
| :---: | :---: | :---: |
| Group 1 Communications <br> 3 courses <br> A grade of $C$ or better is required for ENG 101 and 102. | 9 | ENG 101, 102; SPE 101 |
| Group 2 Mathematics <br> 1 course <br> MTH 101, 124 or 134 preferred. | 3 | MGT 225 or MTH 162 or MTH 165¹, 101, 124, 131, 134 or 200, 201, 202, 220 |
| Group 3 Physical and Life Sciences <br> 2 courses with 1 course from the Life Sciences and 1 from the Physical Sciences. 1 course must be a lab science (marked with an *). | 7 | Life Sciences: BIO 101, 103, 104*, 105, 110*, 120*, 135, 136, 140*, 150*, 160*; DIT 101 <br> Physical Sciences: AST 100, 101*, 112*, 115*; CHM 100*, 103*, 105*, <br> 110*, 121*; GEG 111, 112*; GEO 101*, 103*; PHS 101, 105*, 111*, 112*, <br> 115*, 170+; PHY 100, 121*, 201* |
| Group 4 Humanities and Fine Arts <br> 3 courses with at least one course from Humanities and one course from Fine Arts. Courses marked with a + meet the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation. | 9 | Humanities: CHN 202 or FRN 202 or GER 202 or JPN 202 or SGN $210^{+}$ or SPA 202; HST 105 or HUM 105; HUM 101, 102, 104+, 106+, 107+, 110+, 120, 125 ${ }^{+}$, LIT 105, 110, 112, 115, 206, 207, 208 ${ }^{+}$, 210, $220^{+}, 221,222$, $223^{+}, 224^{+}, 231,232 ;$ PHI 101, 105, 115, 160 ${ }^{+}$, 205+ ${ }^{+} 215^{+}, 220,231,232$; FRN $210^{+}$or GER $210^{+}$or SPA 210+; SPE $121^{+}$ <br> Fine Arts: MUS 120 |
| Group 5 Social and Behavioral Sciences 1 course Courses marked with a + meet the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation. | 3 | ANT $101^{+}, 202^{+}, 205,206+$ ECO 200, 211, 212; GEG $100^{+}$or $101^{+}, 103^{+}$, 104+, 210 ; HST 111, 112, 121+, 141, 142, 212, 231+ ${ }^{+} 232^{+}, 241^{+}, 242^{+}$, 243+, 245+; PSC 101, 220, 250+, 270+, 280+; PSY 101, 216, 217, 218, 228; SOC 101+, $120^{+}, 205^{+}, 215^{+}, 230^{+}, 235^{+}$ |
| Total General Education <br> No more than two GEG and two HST courses (except HST 105) may be used to fulfill Groups 1-5. | 31 |  |
| Group 6 Core Courses: | 36 | Music Theory - $\mathbf{1 2}$ credit hours required MUS 111, 112, 211, 212 <br> Keyboard Skills - 8 credit hours required MUS 165², 166², $265^{2}, 266$ <br> Aural Skills - 4 credit hours required MUS 115, 116, 215, 216 <br> Ensemble - 4 credit hours required MUS 130, 136, 140, 145, 150 <br> Applied Instruction - 8 credit hours required MUS 280, 281, 282, 283, <br> 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299 |
| World Cultures and Diversity Requirement <br> One 3-credit hour course is required. Courses that fulfill this requirement may also be used to fulfill requirements in Groups 4-5. |  | Select one course marked with a + from the above Groups. |
| Total Hours Required | 67 |  |
| Credit will not be granted for both MGT 225 and MTH 162 and MTH 165, only one. <br> All music majors must demonstrate piano proficiency: MUS 165, 166 and 265 may be passed by proficiency exam. Music majors are also advised to take MUS 100 as part of their elective credit. |  |  |

## Requirements for Associate in General Studies A.G.S.

These requirements apply to students who first enrolled for Fall 2013 or later. Students who enrolled prior to Fall 2013 have the option of upgrading their degree plan to access the AGS degree option.
The Associate in General Studies (AGS) degree program is designed to meet the three specific intents--as a Liberal Studies program, as an individualized program meeting needs not met by other degree programs, or as a capstone for occupational certificate programs. Students can use credits earned toward the AGS degree to transfer, but options are limited to institutions that have a formal articulation agreement with Harper College or with institutions that choose to evaluate classes on a course-bycourse basis.

Students must meet with a counselor to determine the appropriateness of the AGS degree option and must complete a detailed Plan of Study before their decision to pursue the AGS degree is formalized. The official plan must be signed by the student and the counselor, then filed in the Advising and Counseling Center. A copy will be forwarded to the Dean of Enrollment Services. In addition to the Plan of Study, yearly communication with a counselor is required to review degree progress or amend the plan. Students who do not meet with their counselor are eligible for enrollment in courses in their plan, but may be blocked from future registration in a subsequent semester if courses outside of the plan are taken.
Students must satisfy prerequisites for each course selected.

| 2013-14 IAI Core Curriculum | Hours Required | Harper Courses |
| :---: | :---: | :---: |
| Group 1 Communications | 6 | ENG 100, 101, 102, 103, 130; MCM 130, 131, 133; SPE 101 |
| Group 2 Mathematics | 3-4 | MGT 150, 225¹; MTH 101, 103, 124, 130, 131, 134, 140, 162¹, 165¹, 200, 201, 202, 203, 212, 220, 265 |
| Group 3 Physical and Life Sciences | 3-4 | AST 100, 101, 112, 115, 150, 201; BIO 101, 103, 104, 105, 110, 120, 130, 135, 136, 140, 150, 160, 161; CHM 100, 103, 105, 110, 121, 122, 125, 201, 204, 205, 210, 220; DIT 101; GEG 111, 112; GEO 101, 102, 103, 201, 202; PHS 101, 105, 111, 112, 115, 170; PHY 100, 121, 122, 201, 202, 203 |
| Group 4 Humanities and Fine Arts Courses marked with a + meet the World Cultures and Diversity graduation requirement. One 3 credit-hour is required for graduation. | 6 | ART 105, 110, 111, 114, 121, 122, 130, 131, 132, 133+ , 201, 206, 225, 236, 150, 151, 261, 291, 296; CHN 101, 102, 201, 202; ENG 230; <br> FRN 101, 102, 201, 202, 205+ ${ }^{+}$210 $^{+}$; GER 101, 102, 201, 202, 205+ ${ }^{+}$210+ $230^{+}$; HST 105 or HUM 105; HUM 101, 102, 104+, 106+, 107+ ${ }^{+}$110+, 115, 120, 125+; JPN 101, 102, 201, 202, 205; LIT 105, 110, 112, 115, 206, 207, $208^{+}, 210,216,217,219,220^{+}, 221,222,223^{+}, 224^{+}, 231,232,241,250$; LNG 105; MUS 101, 102, 103, 104+, 107, 120, 130, 136, 140, 145, 150, 165, 166, 167, 169, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 223, 224; PHI 101, 102, $105,115,120,150,160^{+}, 170,180,190^{+}, 205^{+}, 210,215^{+}, 220,231,232$; SGN 101, 102, 201, 202, 205, 210 ${ }^{+}$, 212; SPA 101, 102, 112, 113, 121, 122, 201, 202, 205+, 210+; SPE 107, 111, 121+ ${ }^{+}$, 212, 216 |
| Group 5 Social and Behavioral Sciences Courses marked with a + meet the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation. | 6 | ANT 101+, $202^{+}$, 203 $^{+}, 205,206^{+}, 207^{+}, 208,210,215,220 ;$ ECO 115, 200, 210, 211, 212; GEG $100^{+}$or $101^{+}, 103^{+}, 104^{+}$, 210 ; HST 111, 112, $121^{+}$, 141, 142, 151, 152, 153, 202, 210+ $, 212,214^{+}, 219,231^{+}, 232^{+}, 241^{+}, 242^{+}$, $243^{+}, 245^{+}, 261,270,281,282 ;$ LNG 205+; PSC 101, 220, 250+ ${ }^{+}$270+ ${ }^{+}$280+; PSY 101, 107, 108, 210, 216, 217, 218, 220, 225, 228, 230, 235, 245; SOC 101+, $120^{+}, 205^{+}, 210,215^{+}, 220,230^{+}, 235^{+}$ |
| Total General Education | 24-26 |  |
| Group 6 Liberal Studies, Certificates, or elective coursework | 36 | Courses must be selected from: <br> - Additional credit hours in one or more departments included in the General Education Groups 1-5. This includes courses not designated as meeting general education requirements in these departments. <br> - One or more certificates may be included as part of these credit hours. <br> - Any 100 or 200 level elective courses in any discipline that fit specific educational goals of an individual student. (IDS 290 is limited to 4 credit hours total.) |
| World Cultures and Diversity Requirement <br> One 3-credit hour course is required. Some courses that fulfill this requirement may also be used to fulfill requirements in Groups 4-5. |  | Select one course marked with a + from the above Groups. |
| Total Hours Required | 60 |  |

[^2]
## Requirements for Associate in Applied Science Degree Options

Completion of the Associate in Applied Science degree does not fulfill the Illinois General Education core curriculum. After transfer, AAS students will need to complete the general education requirements of the institution to which they transfer.

| 2013-14 IAI Core Curriculum | Hours Required | Harper Courses |
| :---: | :---: | :---: |
| Group 1 Communications ENG 101 or 130 and a second course, as approved for your curriculum | 6 | ENG 100, 101, 102, 103, 130; MCM 130, 131, 133; SPE 101 |
| Group 2 Mathematics <br> 1 course <br> A competency test, available in the Testing Center, may be utilized to meet the mathematics requirement for some programs. Students who utilize the competency test to meet the mathematics requirement must complete a three credit hour elective with approval of the program coordinator. | 3 | MGT 150, 2251; MTH 060, 061, 062, 063, 070, 080, 082, 097, 101, 103, 124, 130, 131, 134, 140, 162 ${ }^{1}, 165^{1}, 200,201,202,203,212,220,265$ |
| Group 3 Natural Sciences <br> 9 hours must be taken from a minimum of two of Groups 3, 4 and 5 |  | AST 100, 101, 112, 115, 150, 201; BIO 101, 103, 104, 105, 110, 120, 130, 135, 136, 140, 150, 160, 161; CHM 100, 103, 105, 110, 121, 122, 125, 201, 204, 205, 210, 220; DIT 101; GEG 111, 112; GEO 101, 102, 103, 201, 202; PHS 101, 105, 111, 112, 115, 170; PHY 100, 121, 122, 201, 202, 203 |
| Group 4 Humanities <br> 9 hours must be taken from a nimimum of two of Groups 3, 4, and 5 |  | ART 105, 110, 111, 114, 121, 122, 130, 131, 132, 133+, 201, 206, 225, 236, 150, 151, 261, 291, 296; CHN 101, 102, 201, 202; ENG 230; <br> FRN 101, 102, 201, 202, 205+, 210+'; GER 101, 102, 201, 202, 205+, $210^{+}$, 230+; HST 105 or HUM 105; HST 111, 112, 121+, 141, 142, 151, 152, 153, 202, 210 ${ }^{+}$, 212, $214^{+}, 219,231^{+}, 232^{+}, 241^{+}, 242^{+}, 243^{+}, 245^{+}, 261,270$, 281, 282; HUM 101, 102, 104+, 106+, 107+ $110^{+}, 115,120,125^{+}$; JPN 101, 102, 201, 202, 205; LIT 105, 110, 112, 115, 206, 207, 208+, 210, 215, 216, 217, 219, 220 ${ }^{+}$, 221, 222, 223+ $, 224^{+}, 231,232,241,250$; LNG 105; MUS 101, 103, 104+, 107, 120, 130, 136, 140, 145, 150, 165, 166, 167, 169, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199; PHI 101, 105, 115, 120, 150, 160 ${ }^{+}$, 170, 180, $190^{+}, 205^{+}, 210,215^{+}, 220,231,232 ;$ SGN 101, 102, 201, 202, 205, 210+; SPA 101, 102, 112, 113, 201, 202, 205+ ${ }^{+}$210+; SPE 107, 111, 121+, 212, 216 |
| Group 5 Social and Behavioral Sciences 9 hours must be taken from a minimum of two of Groups 3, 4 and 5. |  | ANT 101+, 202+ 203 $^{+}, 205,206^{+}, 207^{+}, 208,210,215,220 ;$ ECO 115, 200, 210, 211, 212; EDU 211; GEG 100+, 101+, 103++ 104+, 210; LNG 205+; PSC 101, 220, 250 ${ }^{+}$, 270+ $280^{+}$; PSY 101, 107, 108, 210, 216, 217, 218, $220,225,228,230,235,245$; SOC $101^{+}, 120^{+}, 205^{+}, 210,215^{+}, 220,230^{+}$, $235+$ |
| Total General Education | 15-18 |  |
| Group 6 Technical Requirements and Electives | 42-45 |  |
| World Cultures and Diversity Requirement <br> One 3-credit hour course is required. Courses that fulfill this requirement may also be used to fulfill requirements in Groups 4-6. |  | Refer to specific career program curriculum to determine which course marked with a + is appropriate. |
| Total Hours Minimum <br> In addition to the requirements listed, students enrolled in a specific career program must fulfill the requirements outlined in that program. Any changes in program requirements necessitated by licensing and/or accrediting agencies must be observed by students who are already admitted and in process in programs. | 60 |  |

[^3]
## Art/Art Education: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative art education baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition. |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

3-6 credit hours required
Refer to the Associate in Arts degree for approved courses in this category.

## Physical and Life Sciences:

7-8 credits required.
Select one Physical and one Life Science course. At least one must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
ART 130 Ancient and Medieval Art ...................................................................... 3
ART 131 Gothic Through Romantic Art ................................................................. 3
Humanities elective: ${ }^{1}$............................................................................. 3

## Social and Behavioral Sciences:

9 credit hours required.
Recommended: HST 111 or HST 112, PSC 101, PSY 101.
Refer to the Associate in Arts degree for approved courses in this category.

## Special Electives:

6 credit hours required.

| ART | 110 | Drawing I ...................................................................................... |
| :---: | :---: | :---: |
| ART | 111 | Drawing II ................ |

## Approved Electives:

11-23 credit hours required.
ART 121 Design I ................................................................................................... 3
ART 122 Design II ................................................................................................... 3
Studio courses: ${ }^{2}$..................................................................................... 3-9


[^4]
## Biology: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Science degree and follows the Illinois Articulation Initiative biological sciences baccalaureate major recommendations. Students should decide the specialization within the biological sciences major as early as possible, preferably by the beginning of the sophomore year. Students choosing to follow this sample plan need to choose the major of Associate in Science if needing financial aid. Transfer institution requirements may vary - students should check individual college/ university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition |
| SPE | 101 | Fundamentals of Speech Communication. |

## Mathematics:

5-7 credit hours required.


## Physical and Life Sciences:

## 9 credit hours required.

| BIO | 110 | Principles of Biology . |
| :---: | :---: | :---: |
| CHM | 121 | General Chemistry 1 |

## Humanities and Fine Arts:

9 credits hours required.
Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category.
Refer to the Associate in Science degree for approved courses in this category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirements for the Associate in Science degree.

## Social and Behavioral Sciences:

9 credit hours required.
Refer to the Associate in Science degree for approved courses in this category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirements for the Associate in Science degree.

## Special Electives:

3 credit hours required.
Refer to the Associate in Science degree for approved courses in this category.

## Approved Electives:

23 credit hours required.

| BIO | 120 | General Botany |
| :---: | :---: | :---: |
| BIO | 140 | General Zoology . |
| CHM | 122 | General Chemistry II . |
|  |  | Physics and Organic Chemistry ${ }^{2}$ |

1 Refer to the Associate in Science degree for approved courses in this category.
2 Take two courses in physics (PHY 121 and PHY 122 or PHY 201 and PHY 202) OR take two courses in organic chemistry (CHM 204 and CHM 205) OR take one course in physics and one course in organic chemistry.

## Business Administration: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative business administration baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Students will choose a major within the business field at the four-year institution they attend. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition .. |
| :---: | :---: | :---: |
| ENG | 102 | Composition .. |
| SPE | 101 | Fundamentals of Speech Communication .......................................... |

## Mathematics:

4-5 hours required.

| MTH | 134 | Calculus for Social Scientists or |
| :--- | :--- | :--- |
| MTH | 200 | Calculus With Analytic Geometry I ......................................................... 5 |

## Physical and Life Sciences:

7 credit hours required.
Select one Physical and one Life Science course. At least one must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
PHI 115 is recommended.
Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category. One course must meet the world cultures and diversity requirement.
Refer to the Associate in Arts degree for approved courses in this category.
Social and Behavioral Science:
9 credit hours required.

| ECO | 211 | Microeconomics |
| :---: | :---: | :---: |
| ECO | 212 | Macroeconomics |
|  |  | Social and Behavioral Sciences elective ${ }^{1}$ |

## Special Electives:

6 credit hours required.

| CIS | 100 |
| :--- | :--- |
| CIS | 101 |
| MGT | 111 |

Computer Fundamentals or
CIS 101 Introduction to Computer Information Systems ...................................... 3
MGT 111 Introduction to Business Organization²3

Approved Electives:
15-16 credit hours required.

| ACC | 101 | Introduction to Financial Accounting |
| :---: | :---: | :---: |
| ACC | 102 | Introduction to Managerial Accounting ............................................... 3 |
| ACC | 211 | Business Law ${ }^{3}$ or |
| ACC | 213 | Legal Environment of Business ........................................................ 3 |
| MGT | 225 | Applied General Statistics ................................................................ 4 |
|  |  | Other elective credit ${ }^{\text {a }}$.................................................................. 1-2 |

PSY 101 is recommended. Select in consultation with an advisor.
2 As part of the Illinois Articulation Initiative (Phase II), participating schools will accept MGT 111 as elective credit.
3 As part of the Illinois Articulation Initiative (Phase II), participating schools will accept ACC 211 or 213 in place of an equivalent business law or legal and social environment of business course.
4 Refer to the Associate in Arts degree for approved courses in this category.

## Chemistry: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Science degree and follows the Illinois Articulation Initiative chemistry baccalaureate major recommendations. Students are also encouraged to complete course sequences at the same institution prior to transfer. Students choosing to follow this sample plan need to choose the major of Associate in Science if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition. |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

10 credit hours required.

| MTH | 200 | Calculus With Analytic Geometry I |
| :---: | :---: | :---: |
| MTH | 201 | Calculus With Analytic Geometry II |

## Physical and Life Sciences:

9 credit hours required.
Refer to the Associate in Science degree for approved courses in this category.


## Humanities and Fine Arts:

9 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Science degree for approved courses in this category.

## Social and Behavioral Sciences:

9 credit hours required.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Science degree for approved courses in this category.

## Special Electives:

3 credit hours required.
Refer to the Associate in Science degree for approved courses in this category.

## Approved Electives:

20 credit hours required.
Some schools may also require the completion of MTH 202 and PHY 203 as part of the math and physics sequences. Students should check with an advisor to adapt their educational plan accordingly.

## Select four courses from:

| CHM | 121 | General Chemistry I |
| :---: | :---: | :---: |
| CHM | 122 | General Chemistry II |
| CHM | 204 | Organic Chemistry I. |
| CHM | 205 | Organic Chemistry II .. |
| PHY | 202 | General Physics li: Electricity and Magnetism ........ |

## Computer Science - Information Systems Emphasis: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Science degree and follows the Illinois Articulation Initiative computer science - information systems emphasis baccalaureate major recommendations. Bachelor's degree programs in computer science encompass two distinct emphases: information systems emphasis and the technical emphasis. The information systems emphasis focuses on the use of computer technology and information management methods to solve business problems. Students choosing to follow this sample plan need to choose the major of Associate in Science if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition |
| SPE | 101 | Fundamentals |

## Mathematics:

7-9 credits required.

| MTH | 124 | Finite Mathematics or |  |
| :---: | :---: | :---: | :---: |
| MTH | 134 | Calculus for Social Scientists or |  |
| MTH | 200 | Calculus With Analytic Geometry I. | 5 |
| MGT | 225 | Applied General Statistics | 4 |

## Physical and Life Sciences:

8 credit hours required.
PHY 201 recommended for flexibility to change to the technical emphasis.
Refer to the Associate in Science degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Science degree for approved courses in this category.

## Social and Behavioral Sciences:

9 credits hours required.

| ECO | 211 | Microeconomics . |
| :---: | :---: | :---: |
| ECO | 212 | Macroeconomics |
|  |  | Social and Behavioral Science elective ${ }^{1}$ |

## Special Electives:

4 credit hours required.
Computer Science I 4

## Approved Electives:

18 credit hours required.

| ACC | 101 | Introduction to Financial Accounting |
| :---: | :---: | :---: |
| ACC | 102 | Introduction to Managerial Accounting |
| CSC | 122 | Computer Science II |
| CSC | 217 | Assembler Programming and Machine Organization |
| MTH | 220 | Discrete Mathematics |

1 One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Science degree for approved courses in this category.

## Computer Science - Technical Emphasis: Sample Transfer Plan

This sample transfer guide meets the requirements of the Associate in Science degree and follows the Illinois Articulation Initiative computer science - technical emphasis baccalaureate major recommendations. Bachelor's degree programs in computer science encompass two distinct emphases: the information systems emphasis and the technical emphasis. The technical emphasis focuses on algorithms, theoretical foundations of computer science and development of software. Students choosing to follow this sample plan need to choose the major of Associate in Science if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition |
| SPE | 101 | Fundamentals of Spee |

## Mathematics:

10 credit hours required.

| MTH | 200 | Calculus With Analytic Geometry I ........................................................... | 5 |
| :--- | :--- | :--- | :--- |
| MTH | 201 | Calculus With Analytic Geometry II ................................................ | 5 |

## Physical and Life Sciences:

9 credit hours required.
PHY 201 General Physics I: Mechanics ............................................................... 5
Life Science elective ${ }^{1}$............................................................................ 4

## Humanities and Fine Arts:

9 credit hours required.
Select one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Science degree for approved courses in this category.

## Social and Behavioral Sciences:

9 credit hours required.
PSY 101 recommended.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Science degree for approved courses in this category.

## Special Electives:

4 credit hours required.
Computer Science I 4

## Approved Electives:

15 credit hours required.
Students should try to complete the entire course sequence in calculus and physics at the same school before transferring, since topics are covered in different orders by different schools.
CSC 122 Computer Science II ............................................................................. 4

Select 8 hours from:

| CSC | 216 | Data Structures and Algorithm Analysis |
| :---: | :---: | :---: |
| CSC | 217 | Assembler Programming and Machine Organization |
| PHY | 202 | General Physics li: Electricity and Magnetism |
| PHY | 203 | General Physics lii: Thermal and Quantum Physics |
| MTH | 202 | Calculus With Analytic Geometry III ... |

[^5]
## Early Childhood Education: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate of Arts degree and follows the Illinois Articulation Initiative early childhood education baccalaureate major recommendations. Harper also offers an associate in applied science degree in early childhood education. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition. |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

3-6 credit hours required.
Refer to the Associate in Arts degree for approved courses in this category.
Students should check the curriculum of the transfer school they are considering.

## Physical and Life Sciences:

7-8 credits hours required.
CHM 105 recommended.
Select one Physical and one Life Science course. At least one must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

## 9 credit hours required.



## Special Electives:

6 credit hours required.
Some schools may require a foreign language.
Refer to the Associate in Arts degree for approved courses in this category.

## Approved Electives:

18 credit hours required.
A grade of C or better is required for ECE 101, ECE 102, ECE 219, ECE 250, and EDU 220 and EDU 201.
It may be in the student's best interest to repeat these courses if taken more than five years before transfer. These credits, while transferable to participating institutions, may or may not substitute for upper-division professional coursework required for certification.

| ECE | 101 | Introduction to Early Childhood Education ............................................... |
| :--- | :--- | :--- | 3

[^6]
## Elementary Education: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate of Arts degree and follows the Illinois Articulation Initiative teacher education baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition ................................................................................ 3 |
| :---: | :---: | :---: |
| ENG | 102 | Composition. |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

4 credit hours required.
MTH 131 Mathematics for Elementary Teaching II ................................................ 4

## Physical and Life Sciences:

7-8 credit hours required.
CHM 105 recommended.
Select one Physical and one Life Science course. At least one must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
Refer to the Associate in Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

9 credit hours required.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.

| HST | 111 | The American Experience to 1877 or |
| :---: | :---: | :---: |
| HST | 112 | The American Experience Since 1877. |
| PSC | 101 | American Politics and Government. |
|  |  | Social and Behavioral Sciences elective ${ }^{1}$ |

## Special Electives:

6 credit hours required.
HED 200 Health .................................................................................................... 3

## Approved Electives:

17 credit hours required.
As part of the Illinois Articulation Initiative (Phase II), participating schools will accept ECE 102, EDU 201, EDU 211, and EDU 250 in transfer, however, they may or may not substitute for upper division professional course work required for certification.

| ECE | 102 | Child Development ................................................................................................................................... | 4 |
| :--- | :--- | :--- | :--- |

Select 10 hours from:
EDU 201 Introduction to Education ....................................................................... 3

EDU 202 Pre-Student Teaching Clinical Experience ............................................. 1
EDU 211 Educational Psychology ...............................................................................................
EDU 219 Students With Disabilities in School ....................................................... 3
EDU 220 Diversity in Schools and Society ............................................................ 3
EDU 250 Introduction to Technology in Education ................................................. 3

[^7]
## Engineering Science: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Engineering Science degree and follows the Illinois Articulation Initiative engineering baccalaureate major recommendations. Students should have a strong background in mathematics and the physical sciences. Students choosing to follow this sample plan need to choose the major of Associate in Engineering Science if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.
Completion of the Associate in Engineering Science (AES) degree does not fulfill the requirements of the Illinois General Education Core Curriculum. After transfer, AES students will need to complete the general education requirements of the institution to which they transfer.


First Year, Second Semester
ENG 101 Composition .......................................................................................... 3
Select one course from:

| CSC | 121 | Computer Science I ${ }^{1}$ or |  |
| :--- | :--- | :--- | :--- |
| CSC | 208 | Problem Solving for Science and Engineering Using FORTRAN ${ }^{1}$............ | 4 |
| MTH | 201 | Calculus With Analytic Geometry II ........................................ | 5 |
| PHY | 201 | General Physics I. Mechanics |  |

## Summer

ECO 211 Microeconomics .................................................................................... 3
Humanities and Fine Arts Elective ${ }^{2}$........................................................ 3
Second Year, First Semester
ENG 102 Composition .............................................................................................................................. 4- 3

MTH 202 Calculus With Analytic Geometry III ........................................................ 5
PHY 202 General Physics li: Electricity and Magnetism ........................................ 5
Second Year, Second Semester
Engineering specialty ${ }^{3}$....................................................................... 8-10
MTH 212 Differential Equations ............................................................................ 3
Social and Behavioral Sciences or Humanities and Fine Arts Elective ${ }^{2}$.... 3
1 Other computer science courses may be substituted based on requirements of specialty and transfer institution.
2 One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Engineering Science degree for approved courses in this category. A two-semester sequence in the same discipline from either the humanities/ fine arts or the social/behavioral sciences is recommended.
3 Note: A minimum of 13 hours of engineering specialty courses is required in total. Specialty courses must be approved in consultation with engineering chair:; Chemical - CHM 122, 204, 205; Civil - EGR 121, 210, 211, 212; Computer - CSC 122 or MTH 220, EGR 260, 262, 270; Electrical - EGR 260, 262, 270, PHY 203; Industrial - EGR 121, 210, 211, 212; Mechanical - EGR 121, 210, 211, 212, 240, 260, 262

## English: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative English baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition .................................................................................. |
| :---: | :---: | :---: |
| ENG | 102 | Composition ... |
| SPE | 101 | Fundamentals of Speech Communication . |

## Mathematics:

3-6 credit hours required.
Refer to the Associate in Arts degree for approved courses in this category.

## Physical and Life Sciences:

7-8 credit hours required.
Select one Physical and one Life Science course. One course must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select two courses from the following LIT courses:
LIT 221 American Literature-Colonial Days to Civil War ....................................... 3

LIT 222 American Literature--the Civil War to Present .......................................... 3
LIT 231 English Literature to 1800 .................................................................................. 3
LIT 232 English Literature 1800-1914 .................................................................. 3
Fine Arts electives ${ }^{1}$.................................................................................. 3

## Social and Behavioral Sciences:

9 credit hours required.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.

## Special Electives:

6 credit hours required.

> Foreign Language elective ${ }^{2}$................................................................... 4
> Other special elective ${ }^{3}$ 2

## Approved Electives:

17 credit hours required.

| LIT | 105 | Poetry | 3 |
| :---: | :---: | :---: | :---: |
| LIT | 110 | Drama | 3 |
| LIT | 115 | Fiction | 3 |
|  |  | Other electives ${ }^{4}$ | 14 |

1 One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.
2 Competency in a single foreign language through the third or fourth college semester. See a Harper Student Development counseling faculty member to determine which foreign language course(s) is appropriate to take.
3 Refer to the Associate in Arts degree for approved courses in this category
4 Competency in a single foreign language through the third or fourth college semester. See a Harper Student Development counseling faculty member to determine which foreign language course(s) is appropriate to take. Refer to the Associate in Arts degree for approved courses in this category. Some universities require a multicultural or human diversity course within the English major. Consult the university to which you intend to transfer and your advisor. Universities with such a requirement will accept either LIT 208 or LIT 223 . Some universities offer a specialization in creative writing. Consult the university to which you intend to transfer and your advisor. Universities with such a requirement will accept either ENG 221 or ENG 222.

## Environmental Studies: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and the core general education requirements of the Illinois Articulation Initiative. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Communications:
9 credit hours required.

| ENG | 101 | Composition ${ }^{1}$ |
| :---: | :---: | :---: |
| ENG | 102 | Composition. |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

4 credit hours required.
$\qquad$
Physical and Life Sciences:
7 credit hours required.


## Humanities and Fine Arts:

9 credit hours required.
Fine Arts or Interdisciplinary Studies elective ${ }^{2}$......................................... 3
PHI 101 Critical Thinking ...................................................................................... 3
PHI 115 Ethics ........................................................................................................ 3

## Social and Behavioral Sciences:

## 9 credit hours required.

| ANT | 202 | Cultural Anthropology+ or |
| :--- | :--- | :--- |
| ECO | 211 | Microeconomics ..................................................................................... |
| GEG | 210 | Economic Geography ....................................................................................... |


| GEG 210 | Economic Geography ............................................................................. 3 |  |
| :--- | :--- | :--- |
| PSC | 370 | Global Politics ${ }^{+}$ |

## Special Electives:

6 credit hours required.
Choose either 6 hours of a World Language as listed in the catalog or

| CAS | 160 | Introduction to Business Software Packages and |
| :--- | :--- | :--- |
| MGT | 111 | Introduction to Business Organization .................................................. 3 |

Approved Electives:
16 credit hours required.

| BIO | 104 | Environmental Laboratory Biology |
| :---: | :---: | :---: |
| GEG | 151 | Geographic Information Systems I. |
| PHS | 105 | Energy and Society |
| PHI | 170 | Environmental Ethics |
|  |  | Other approved elecdtives |

1 Prerequisites must be met prior to registration for these courses.
2 One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.

+ Courses marked with a + meet the World Cultures and Diversity graduation requirement.


## Health Education: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and the core general education requirements of the Illinois Articulation Initiative. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition .. |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

4 credit hours required.
MTH 101 Quantitative Literacy ................................................................................ 4

## Physical and Life Sciences:

7 credit hours required.
Select one Physical and one Life Science course. At least one must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category.
If HED 200 is not selected, then one course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
Refer to the Associate in Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

## 9 credit hours required.

If HED 200 is not selected, then one course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
Refer to the Associate in Arts degree for approved courses in this category.

## Special Electives:

## 6 credit hours required.

Select six credit hours from:

| HED | 200 | Health ${ }^{1}$ | 3 |
| :---: | :---: | :---: | :---: |
| KIN | 120 | Nutrition and Exercise | 2 |
| KIN | 203 | Wellness for Life. | 3 |

## Approved Electives:

16 credit hours required.

| HED | 201 | Drugs in Our Culture |
| :---: | :---: | :---: |
| HED | 202 | Human Sexuality |
| KIN | 201 | Physical Education in Elementary School . |
|  |  | Other approved elective (non-HED/KIN courses) ${ }^{2}$............................... |

1 If HED 200 is not selected, then one course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
2 Refer to the Associate in Arts degree for approved courses in this category.

## History: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative history baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

3-6 credit hours required.
Refer to the Associate in Arts degree for approved courses in this category.

## Physical and Life Sciences:

7-8 credit hours required.
Select one Physical and one Life Science course. One must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

## 9 credit hours required.

| HST | 111 | The American Experience to 1877 ................................................... |
| :---: | :---: | :---: |
| HST | 112 | The American Experience Since 1877 ............................................... |
|  |  | Social and Behavioral Sciences elective ${ }^{1}$. |

## Special Electives:

6 credit hours required.
Some schools may require a foreign language.
Refer to the Associate in Arts degree for approved courses in this category.

## Approved Electives:

17 credit hours required.

| HST | 141 | History of Western Civilization to 1650 | 4 |
| :---: | :---: | :---: | :---: |
| HST | 142 | History of Western Civilization Since 1650 | 4 |
|  |  | Other elective credit ${ }^{2}$ | 9 |

1 One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.
2 Students should select courses in consultation with an advisor. Students who have decided upon a minor field are encouraged to complete one or more courses in that minor. Students planning to seek high school teacher certification are encouraged to complete one or more courses in that minor. Students planning to seek high school teacher certification are encouraged to complete one or more professional education courses. Refer to the Associate in Arts degree for approved courses in this category.

## Kinesiology: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and the core general education requirements of the Illinois Articulation Initiative. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

Communications:
9 credit hours required.

| ENG | 101 | Composition .................................................................................. |
| :---: | :---: | :---: |
| ENG | 102 | Composition ... |
| SPE | 101 | Fundamentals of Speech Communication . |

## Mathematics:

4 credit hours required.
$\qquad$

## Physical and Life Science:

7 credit hours required.
Select one Physical and one Life Science course. At least one must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
If HED 200 is not selected, then one course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
Refer to the Associate in Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

## 9 credit hours required.

If HED 200 is not selected, then one course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
Refer to the Associate in Arts degree for approved courses in this category.

## Special Electives:

## 6 credit hours required.

Select six credit hours from:

| HED | 200 | Health ${ }^{1}$ | 3 |
| :---: | :---: | :---: | :---: |
| KIN | 120 | Nutrition and Exercise | 2 |
| KIN | 203 | Wellness for Life ... | 3 |

Approved Electives:
16 credit hours required.

| KIN | 201 | Physical Education in Elementary School |
| :---: | :---: | :---: |
| KIN | 202 | Standard First Aid |
| KIN | 230 | Personal Training I/Exercise Science or |
| KIN | 221 | Care and Prevention of Athletic Injuries |

Choose at least two credit hours from:
HED $201 \quad$ Drugs in Our Culture ............................................................................. 3
HED 202 Human Sexuality ..................................................................................................................................................................... 3
HED 204 Women's Health ..................................................................................... 3
KIN 204 Teaching Methods: Track and Field ..................................................................................................................... 2
KIN 206 Teaching Methods: Football .................................................................... 2
KIN 208 Teaching Methods: Basketball ................................................................ 2
KIN 210 Teaching Methods: Baseball ................................................................... 2
KIN 212 Water Safety Instructor ........................................................................... 2
KIN 220 Introduction to Coaching .......................................................................... 3
KIN 221 Care and Prevention of Athletic Injuries ................................................. 3
KIN 222 Sports Officiating ................................................................................... 2
KIN 223 Sports Psychology .............................................................................. 3
KIN 224 Sociology of Sport ................................................................................ 3
KIN 231 Personal Training II/Fitness Assessment Procedures .............................. 2
KIN $234 \quad$ Personal Training Internship ............................................................................ 1
Other approved elective (non-HED/KIN courses) ${ }^{2}$.................................... 6

[^8]
## Law Enforcement and Justice Administration: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative law enforcement (criminal justice) baccalaureate major recommendations. Harper also offers an associate in applied science degree in law enforcement. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.
First Year, First Semester
15 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| LEJ | 101 | Introduction to Criminal Justice |
| LEJ | 210 | Criminology |
|  |  | Mathematics elective ${ }^{1}$ |
| SOC | 101 | Introduction to Sociology . |

First Year, Second Semester
15 credit hours required.

| LEJ | 201 | Criminal Law |
| :---: | :---: | :---: |
| LEJ | 205 | Juvenile Justice |
| PHI | 101 | Critical Thinking |
| SOC | 205 | Social Problems |
| SPE | 101 | Fundamentals of Speech Communication ........................................... |

## Second Year, First Semester

15 credit hours required.

| ENG | 102 | Composition | 3 |
| :---: | :---: | :---: | :---: |
| LEJ | 104 | Corrections | 3 |
| LEJ | 214 | Community Policing | 3 |
|  |  | Physical and Life Sciences elective ${ }^{2}$ | 3 |
|  |  | Special elective ${ }^{3}$ | 3 |

## Second Year, Second Semester

16 credit hours required.

$$
\text { Humanities and Fine Arts elective }{ }^{4} \text {........................................................... } 6
$$

Physical and Life Sciences elective ${ }^{2}$........................................................ 4
Social and Behavioral Science elective ${ }^{5}$................................................... 3
Special elective ${ }^{3}$....................................................................................... 3
1 Refer to the Associate in Arts degree for approved courses in this category.
2 Select one Physical and one Life Science course. At least one must include a lab. Refer to the Associate in Arts degree for approved courses in this category.
3 Choose from CIS 100, CIS 101, DIV 101, SGN 101, SPA 101, SPA 121, SPE 200
4 Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category. One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.
5 PSY 101 is recommended. Refer to the Associate in Arts degree for approved courses in this category.

## Liberal Arts: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and the core general education requirements of the Illinois Articulation Initiative. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

3-6 credit hours required.
Refer to the Associate in Arts degree for approved courses in this category.

## Physical and Life Sciences:

7-8 credit hours required.
Select one Physical and one Life Science course. One course must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
Refer to the Associate in Arts degree for approved courses in this category.
Recommended: HUM 101, HUM 102 and advanced literature courses.

## Social and Behavioral Sciences:

9 credit hours required.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.

## Special Electives:

6 credit hours required.
Recommended: foreign language courses.
Refer to the Associate in Arts degree for approved courses in this category.

## Approved Electives:

17 credit hours required.
Refer to the Associate in Arts degree for approved courses in this category.

## Mathematics: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Science degree and follows the Illinois Articulation Initiative mathematics baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Science if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition. |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

10 credit hours required.

| MTH | 200 | Calculus With Analytic Geometry I |
| :---: | :---: | :---: |
| MTH | 201 | Calculus With Analytic Geometry II |

## Physical and Life Sciences:

8 credit hours required.
Select one Physical and one Life Science course. At least one must include a lab.
Refer to the Associate in Science degree for approved courses in this category.
PHY 201 is strongly recommended.

## Humanities and Fine Arts:

9 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Science degree for approved courses in this category.

## Social and Behavioral Sciences:

9 credit hours required.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Science degree for approved courses in this category.

## Special Electives:

4 credit hours required.

## CSC 208

Problem Solving for Science and Engineering Using FORTRAN
4
Approved Electives:
16 credit hours required.
MTH 202 Calculus With Analytic Geometry III ....................................................... 5
MTH 212
Differential Equations .............................................................................. 3


[^9]
## Music - Music Education: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Fine Arts - Music degree and follows the Illinois Articulation Initiative music education baccalaureate major recommendations. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.
Completion of the Associate in Fine Arts degree does not fulfill the requirements of the Illinois General Education Core Curriculum. After transfer, Associate in Fine Arts - Music students will need to complete the general education requirements of the institution to which they transfer.

## Communications:

## 9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition. |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

3 credit hours required.
Refer to the Associate in Fine Arts degree for approved courses in this category.

## Physical and Life Sciences:

7 credit hours required.
Refer to the Associate in Fine Arts degree for approved courses in this category.

## Humanities:

6 credit hours required.
Select one course from HUM 106 or HUM 107, LIT 208, PHI 160 or PHI 205.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Fine Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

3 credit hours required.
Recommended: PSC 101 or HST 111 or HST 112
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Fine Arts degree for approved courses in this category.

## Core Music Courses:

39 credit hours required.

| MUS | 111 | Theory of Music I |
| :---: | :---: | :---: |
| MUS | 112 | Theory of Music II |
| MUS | 115 | Aural Skills 1. |
| MUS | 116 | Aural Skills II . |
| MUS | 120 | Introduction to Music Literature |
| MUS | 165 | Class Piano I ${ }^{1}$ |
| MUS | 166 | Class Piano II ${ }^{1}$ |
| MUS | 211 | Theory of Music III |
| MUS | 212 | Theory of Music IV . |
| MUS | 215 | Aural Skills III |
| MUS | 216 | Aural Skills IV . |
| MUS | 265 | Class Piano III ${ }^{1}$ |
| MUS | 266 | Class Piano IV . |
|  |  | Applied Music ${ }^{2}$. |
|  |  | Ensemble ${ }^{3}$. |

1 All Music majors must demonstrate piano proficiency: MUS 165, MUS 166 and MUS 265 may be passed by proficiency exam. Music majors are also advised to take MUS 100 as part of their elective credit.
2 To be selected from MUS 280 through MUS 299.
3 To be selected from MUS 130, MUS 136, MUS 140, MUS 145 and MUS 150.

## Music - Music Emphasis: Sample Transfer Plan

This sample transfer planning guide meet the requirements of the Associate in Fine Arts - Music degree and follows the Illinois Articulation Initiative music baccalaureate major recommendations. The music emphasis at Harper College is designed to provide the student with a program equivalent to the first two years of most four-year college programs, with emphasis in music education, musicology, composition, applied music, and theory and literature. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.
Completion of the Associate in Fine Arts degree does not fulfill the requirements of the Illinois General Education Core Curriculum. After transfer, Associate in Fine Arts - Music students will need to complete the general Education requirements of the institution to which they transfer.

## Communications:

## 9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition |
| SPE | 101 | Fundamentals of Speech Communication .......................................... |

## Mathematics:

3 credit hours required.
Refer to the Associate in Fine Arts - Music degree for approved courses in this category.

## Physical and Life Sciences:

7 credit hours required.
Refer to the Associate in Fine Arts - Music degree for approved courses in this category.

## Humanities:

6 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Fine Arts - Music degree for approved courses in this category.

## Social and Behavioral Sciences:

3 credit hours required.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Fine Arts - Music degree for approved courses in this category.

## Core Music Courses:

39 credit hours required.

| MUS | 111 | Theory of Music I . |
| :---: | :---: | :---: |
| MUS | 112 | Theory of Music II |
| MUS | 115 | Aural Skills I . |
| MUS | 116 | Aural Skills II. |
| MUS | 120 | Introduction to Music Literature |
| MUS | 165 | Class Piano I ${ }^{1}$ |
| MUS | 166 | Class Piano II ${ }^{1}$ |
| MUS | 211 | Theory of Music III. |
| MUS | 212 | Theory of Music IV . |
| MUS | 215 | Aural Skills III. |
| MUS | 216 | Aural Skills IV |
| MUS | 265 | Class Piano III ${ }^{1}$ |
| MUS | 266 | Class Piano IV |
|  |  | Applied Music ${ }^{2}$ |
|  |  | Ensemble ${ }^{3}$ |

1 All music majors must demonstrate piano proficiency; MUS 165, MUS 166 and MUS 265 may be passed by proficiency exam. Music majors are also advised to take MUS 100 as part of their elective credit.
2 To be selected from MUS 280 through MUS 299.
3 To be selected from MUS 130, MUS 136, MUS 140, MUS 145 and MUS 150.

## Music - Piano Pedagogy Emphasis: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Fine Arts - Music degree and follows the Illinois Articulation Initiative music baccalaureate major recommendations. The piano pedagogy emphasis is designed to provide the knowledge and skills necessary to teach beginning and intermediate piano students. It will provide opportunities for observation of individual and group instruction as well as supervised student teaching. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.
Completion of the Associate in Fine Arts degree does not fulfill the requirements of the Illinois General Education Core Curriculum. After transfer, Associate in Fine Arts - Piano Pedagogy students will need to complete the general education requirements of the institution to which they transfer.

## Communications:

## 9 credit hours required.

| ENG | 101 | Composition . |
| :---: | :---: | :---: |
| ENG | 102 | Composition. |
| SPE | 101 | Fundamentals of Speech Communication . |

## Mathematics:

3 credit hours required.
Refer to the Associate in Fine Arts degree for approved courses in this category.

## Physical and Life Sciences:

7 credit hours required.
Refer to the Associate in Fine Arts degree for approved courses in this category.

## Humanities:

6 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Fine Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

3 credit hours required
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Fine Arts degree for approved courses in this category.

Core Music Courses:
39 credit hours required.

| MUS | 111 | Theory of Music I |
| :---: | :---: | :---: |
| MUS | 112 | Theory of Music II |
| MUS | 115 | Aural Skills I. |
| MUS | 116 | Aural Skills II |
| MUS | 120 | Introduction to Music Literature . |
| MUS | 211 | Theory of Music III. |
| MUS | 212 | Theory of Music IV .... |
| MUS | 215 | Aural Skills III. |
| MUS | 216 | Aural Skills IV .. |
| MUS | 266 | Class Piano IV ${ }^{1}$. |
| MUS | 271 | Piano Pedagogy 1. |
| MUS | 272 | Piano Pedagogy II . |
|  |  | Applied Music ${ }^{2}$........ |
|  |  | Ensemble ${ }^{3}$ |

[^10]
## Nursing: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Science degree and follows the Illinois Articulation Initiative nursing baccalaureate major recommendations. Harper also offers an associate in applied science degree in nursing. Students choosing to follow this sample plan need to choose the major of Associate in Science if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition. |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

6 credit hours required.
Refer to the Associate in Science degree for approved courses in this category.

## Physical and Life Sciences:

9 credit hours required.

| BIO | 130 | Microbiology .................................................................................. |
| :---: | :---: | :---: |
| CHM | 121 | General Chemistry I ........ |

## Humanities and Fine Arts:

9 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
Refer to the Associate in Science degree for approved courses in this category.

## Social and Behavioral Sciences:

9 credit hours required.
Recommended: PSY 101, PSY 228, and SOC 101.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
Refer to the Associate in Science degree for approved courses in this category.

## Special Electives:

3 credit hours required.
Refer to the Associate in Science degree for approved courses in this category.

## Approved Electives:

19 credit hours required.

| BIO | 160 | Human Anatomy |
| :---: | :---: | :---: |
| BIO | 161 | Human Physiology |
| CHM | 122 | General Chemistry II |
| CHM | 201 | Basic Organic Chemistry |
|  |  | Approved Electives ${ }^{1}$......... |

[^11]
## Political Science: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative political science baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

3-6 credit hours required.
Refer to the Associate in Arts degree for approved courses in this category.

## Physical and Life Sciences:

7-8 credit hours required.
Select one Physical and one Life Science course. One course must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

## 9 credit hours required

| PSC | 101 | American Politics and Government ................................................... |
| :---: | :---: | :---: |
| PSC | 220 | State and Local Government in the United States ............................... |
|  |  |  |

## Special Electives:

6 credit hours required.
Refer to the Associate in Arts degree for approved courses in this category.

## Approved Electives:

17 credit hours required.
PSC 270 Global Politics ........................................................................................ 3
Other elective credit ${ }^{2}$............................................................................. 14
1 One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.
2 Refer to the Associate in Arts degree for approved courses in this category.

## Psychology: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative psychology baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition. |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

3-6 credit hours required.
MTH 165 or MGT 225, MTH 200 and/or MTH 124 are recommended.
Refer to the Associate in Arts degree for approved courses in this category.

## Physical and Life Sciences:

7-8 credit hours required.
Select one Physical and one Life Science course. At least one must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
Refer to the Associate in Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

## 9 credit hours required.

PSY 101 Introduction to Psychology ..................................................................... 3

Social and Behavioral Sciences electives ${ }^{1}$............................................... 6

## Special Electives:

6 credit hours required.
Refer to the Associate in Arts degree for approved courses in this category.

## Approved Electives:

17 credit hours required.
Select three courses from the following four PSY courses:

| PSY | 216 | Child Psychology . | 3 |
| :---: | :---: | :---: | :---: |
| PSY | 225 | Theories of Personality | 3 |
| PSY | 230 | Abnormal Psychology | 3 |
| PSY | 245 | Industrial/Organizational Psychology | 3 |
|  |  | Other elective credit ${ }^{2}$......... | 8 |

1 One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.
2 Refer to the Associate in Arts degree for approved courses in this category.

## Secondary Education: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative teacher education baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition. |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

3-6 credit hours required.
Students should check with the curriculum of the transfer school they are considering.
Refer to the Associate in Arts degree for approved courses in this category.

## Physical and Life Sciences:

7-8 credit hours required.
CHM 105 recommended.
Select one Physical and one Life Science course. At least one must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

## 9 credit hours required.

| HST | 111 | The American Experience to 1877 or |
| :---: | :---: | :---: |
| HST | 112 | The American Experience Since 1877 |
| PSC | 101 | American Politics and Government |
|  |  | Social and Behavioral Sciences elective ${ }^{1}$ |

## Special Electives:

6 credit hours required.
Some schools may require a foreign language.
Refer to the Associate in Arts degree for approved courses in this category.

## Approved Electives:

20 credit hours required.
As part of the Illinois Articulation Initiative (Phase II), participating schools will accept ECE 102, EDU 201, EDU 211, and EDU 250 in transfer, however, they may or may not substitute for upper division professional course work requierd for certification.

| ECE | 102 | Child Development |
| :---: | :---: | :---: |
| EDU | 201 | Introduction to Education |
| EDU | 202 | Pre-Student Teaching Clinical Experience |
| EDU | 211 | Educational Psychology |
| EDU | 220 | Diversity in Schools and Society |
| EDU | 250 | Introduction to Technology in Education. |
|  |  | Area of teaching major or minor ${ }^{2}$ |

[^12]
## Sociology: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative sociology baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition .................................................................................. |
| :---: | :---: | :---: |
| ENG | 102 | Composition |
| SPE | 101 | Fundamentals of Speech Communication .......................................... |

## Mathematics:

3-6 credit hours required.
MTH 124 or MTH 165 or MGT 225 is recommended.
Refer to the Associate in Arts degree for approved courses in this category.

## Physical and Life Sciences:

7-8 credit hours required.
Select at least one physical and one life science. One course must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
Refer to the Associate in Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

## 9 credit hours required.



## Special Electives:

6 credit hours required.
Refer to the Associate in Arts degree for approved courses in this category.

## Approved Electives:

17 credit hours required.

| SOC | 205 | Social Problems |
| :---: | :---: | :---: |
| SOC | 230 | Sociology of Sex and Gender |
|  |  | Other elective credit ${ }^{1}$. |

[^13]
## Special Education: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative teacher education baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition. |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

3-6 credit hours required.
Students should check with the curriculum of the transfer school they are considering.
Refer to the Associate in Arts degree for approved courses in this category.

## Physical and Life Sciences:

7-8 credit hours required.
CHM 105 recommended.
Select one Physical and one Life Science course. At least one must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select at least one course from Humanities and one from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

## 9 credit hours required.

One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
Refer to the Associate in Arts degree for approved courses in this category.


## Special Electives:

6 credit hours required.
Some schools may require a foreign language.
Refer to the Associate in Arts degree for approved courses in this category.

## Approved Electives:

19 credit hours required.
As part of the Illinois Articulation Initiative (Phase II), participating schools will accept ECE 102, EDU 201, EDU 211 and EDU 250 in transfer, however, they may or may not substitute for upper division professional course work required for certification.

| ECE | 102 | Child Development |
| :---: | :---: | :---: |
| EDU | 201 | Introduction to Education |
| EDU | 202 | Pre-Student Teaching Clinical Experience |
| EDU | 211 | Educational Psychology |
| EDU | 219 | Students With Disabilities in School |
| EDU | 220 | Diversity in Schools and Society. |
| EDU | 250 | Introduction to Technology in Education |

[^14]
## Speech Communication: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative speech communication baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

3-6 credit hours required.
Refer to the Associate in Arts degree for approved courses in this category.

## Physical and Life Sciences:

7-8 credit hours required.
Select one Physical and one Life Science course. One course must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

9 credit hours required
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.

## Special Electives:

6 credit hours required.

## Select two courses from:

SPE 107 Oral Interpretation .................................................................................. 3
SPE 200 Interpersonal Communication ................................................................. 3
SPE 205 Group Discussion .................................................................................. 3
Approved Electives:
17 credit hours required.
SPE 102 Advanced Public Speaking ..................................................................... 3


[^15]
## Theatre Arts: Sample Transfer Plan

This sample transfer planning guide meets the requirements of the Associate in Arts degree and follows the Illinois Articulation Initiative theatre arts baccalaureate major recommendations. Students choosing to follow this sample plan need to choose the major of Associate in Arts if needing financial aid. Transfer institution requirements may vary - students should check individual college/university requirements before completing the sample plan as outlined. Baccalaureate admission may be competitive. Completion of these courses alone does not guarantee admission.

## Communications:

9 credit hours required.

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition |
| SPE | 101 | Fundamentals of Speech Communication |

## Mathematics:

3-6 credit hours required.
Refer to the Associate in Arts degree for approved courses in this category.

## Physical and Life Sciences:

7-8 credit hours required.
Select one Physical and one Life Science course. One course must include a lab.
Refer to the Associate in Arts degree for approved courses in this category.

## Humanities and Fine Arts:

9 credit hours required.
Select one course from Humanities and one course from Fine Arts. Interdisciplinary courses may count in either category.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
Refer to the Associate in Arts degree for approved courses in this category.

## Social and Behavioral Sciences:

9 credit hours required.
One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.

## Special Electives:

6 credit hours required.

| SPE | 107 | Oral Interpretation |
| :---: | :---: | :---: |
| SPE | 212 | Acting I ......................................................................................... |

## Approved Electives:

17 credit hours required.

| SPE | 213 | Acting II .......................................................................................... |  |
| :---: | :---: | :---: | :---: |
| SPE | 216 | Stagecraft ...................................................................................... |  |
|  |  | Other elective credit ${ }^{1}$... |  |

[^16]
## ACCOUNTING

Associate in Applied Science A.A.S.: Accounting Associate DegreeThis 61 credit-hour program is designed to prepare students for employment as junior accountants in business, industry and government.
The curriculum includes the study of accounting theory and practice, corporation accounting, and cost accounting. Required business coursework provides for an overview of the corporate community and includes economics, business law and management classes. Computerinformation skills are essential to today's accountants and are also required in this degree.
FIRST YEAR First Semester


## Second Semester

ACC 102 Introduction to Managerial Accounting3
CIS 106 ..... WEB 240
Computer Logic and Programming Technology or E-Commerce Development ..... 3
ECO 200 Introduction to Economics orECO 211 Microeconomics or
ECO 212 Macroeconomics ..... 3
English elective ${ }^{2}$ ..... 3
Humanities elective ${ }^{+}$ ..... 3
SECOND YEAR First Semester
ACC 201 Intermediate Accounting I ..... 3
ACC 211 Business Law ..... 3
Business elective ${ }^{3}$ ..... 3
CAS $160 \quad$ Introduction to Business Software Packages ${ }^{4}$ ..... 3
Social Science elective ${ }^{+}$ ..... 3
Second Semester
ACC 202 Intermediate Accounting II ..... 3
ACC 203 Introductory Cost Accounting ..... 3
Business electives ${ }^{3}$ ..... 6
ACC/CAS/CIS electives ${ }^{5}$ ..... 3

1 Only MGT 150 or MTH 124 or higher will satisfy this requirement.
2 Students may elect ENG 100, ENG 101, ENG 102 or ENG 130 depending on their test scores and advice of a Student Development Faculty Counselor.

+ At least one of the Humanities or Social Science requirements must also meet the World Cultures and Diversity graduation requirement.
3 Business electives (students must satisfy prerequisites for each course elected): ACC 212, ACC 213, FIN 215, MGT 218, MGT 225, MGT 270.
4 Students may substitute three (3) total credit hours from CAS 105, CAS 115, CAS 125 or CAS 215.
5 ACC/CAS/CIS electives (students must satisfy prerequisite for each course elected): ACC 155, ACC 250, ACC 251, ACC 253, ACC 254, ACC 256, ACC 295 (limit 4 hours), CAS 260, CIS 203.


## Accounting Assistant Certificate

This 29 credit-hour certificate program is designed for persons interested in pursuing careers as junior accountants in business, government and industry. There is an acute shortage of persons with the training needed to be successful in accounting.

## Required:

| ACC | 101 | Introduction to Financial Accounting |
| :---: | :---: | :---: |
| ACC | 102 | Introduction to Managerial Accounting |
| ACC | 110 | Quickbooks I . |
| ACC | 111 | Quickbooks II |
| ACC | 155 | Payroll Accounting |
| CAS | 160 | Introduction to Business Software Packages or |

Three total credit hours from the following four CAS courses:

| CAS | 105 | Word Processing Software |
| :---: | :---: | :---: |
| CAS | 115 | Spreadsheet Software ...................................................................... |
| CAS | 125 | Database Software |
| CAS | 215 | Advanced Spreadsheet Software ....................................................... |
| ENG | 101 | Composition or |
| ENG | 130 | Business Writing ........... |
| MGT | 111 | Introduction to Business Organization ................................................ |

## ACCOUNTING

Electives: Select any three courses from the following:
ACC 201 Intermediate Accounting I ..... 3
ACC 202 Intermediate Accounting II ..... 3
ACC 203 Introductory Cost Accounting ..... 3
ACC 250 Income Tax Accounting ..... 3
ACC 251 Advanced Tax Accounting ..... 3
ACC 253 Advanced Accounting I ..... 3
ACC 254 Auditing ..... 3
ACC 256 Enrolled Agent Exam Review ..... 3

## Accounting Bookkeeper/Clerk Certificate

This $9-10$ credit-hour certificate program will provide the student with the courses needed for an entry-level position in this particular area.

## Required:

| ACC | 100 | Introductory Accounting or |
| :---: | :---: | :---: |
| ACC | 101 | Introduction to Financial Accounting |
| ACC | 110 | Quickbooks I . |
| ACC | 155 | Payroll Accounting |
| CAS | 160 | Introduction to Business Software Packages or |

three total credit hours from the following four CAS courses:
CAS Word Processing Software .................................................................... $105 \quad 1$
CAS 115 Spreadsheet Software ............................................................................. 1
CAS 125 Database Software ................................................................................ 1
CAS 215 Advanced Spreadsheet Software ............................................................. 1

## Advanced Accounting Bookkeeper/Clerk Certificate

This 20 credit-hour certificate program will provide the student with the courses needed for an entry-level position in such areas as accounts payable, accounts receivable and inventory accounting.

## Required:


three total credit hours from the following four CAS courses:

| CAS | 105 | Word Processing Software ................................................................ |
| :---: | :---: | :---: |
| CAS | 115 | Spreadsheet Software |
| CAS | 125 | Database Software |
| CAS | 215 | Advanced Spreadsheet Software ...................................................... |
| ENG | 101 | Composition or |
| ENG | 130 | Business Writing ............................................................................. |
| MGT | 111 | Introduction to Business Organization ................................................ |

## Professional ACCTG-CPA Preparation Certificate

This 30 credit-hour certificate is designed to provide individuals with the necessary accounting courses to qualify for the Certified Public Accountant (CPA) exam. The program is intended for individuals who already have a bachelor's degree and wish to transition to a career in the field of accounting.
To qualify for the CPA exam, a candidate must have a bachelor's degree and a total of 150 semester hours of credit, including 24 hours in business and a minimum of 30 hours in accounting. The 24 hours in business must include two hours in business communication (ENG 130, Business Writing) and three hours in business ethics (PHI 150, Business Ethics). Additionally, it is strongly recommended that the 24 business hours include at least three hours in business law. At Harper, ACC 211 (Business Law I) and ACC 213 (Legal Environment of Business ) are available. The Illinois Board of Examiners provides more detailed information on educational requirements at www.illinois-cpa-exam.com. Harper will accept up to 15 credit hours in equivalent courses from regionally accredited institutions.
[Requirements for the Illinois CPA Certificate:
To sit for the CPA examination in Illinois effective July 1, 2013, the candidate must have a total of 150 hours of acceptable college-level education including at least a bachelor's degree. Thirty semester hours must be in accounting. An additional 24 hours in business courses are required, including two hours in business communications and three hours in business ethics. (Business law is also included in the business requirements).

## ACCOUNTING

At Harper College, acceptable accounting courses include: ACC 101, ACC 102, ACC 201, ACC 202, ACC 203, ACC 211, ACC 212, ACC 251, ACC 253, ACC 254, ACC 260, ACC 261.

A wide variety of business courses are offered including ACC 211, ACC 212, ACC 213, CIS 101, ECO 210, ECO 211, ECO 212, FIN 215, MGT 111, MGT 218, MGT 225, MGT 270, MTH 124, PHI 150.]
[Requirements for the Illinois CMA Certificate:
The Certified Management Accountant (CMA) 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 two of the CMA examination.]

## Required:



## ARCHITECTURAL STUDIES

## Architectural 2D CAD Certificate

This 6 credit-hour certificate program is designed for those just entering the field of architecture, as well as the practicing professional who desires to learn the necessary skills to be proficient in beginning CAD drafting. Courses include introductory two-dimensional drafting and proceed through advanced two-dimensional drafting to make work faster and more efficient. Students will learn, through hands-on experience using state of the art computer hardware, the CAD software packages in demand in today's workplace.

## Required:

ARC 116 Architectural CAD I ................................................................................ 3
ARC 117 Architectural CAD II .................................................................................. 3

## Architectural Studies Design Certificate

This 20 credit-hour certificate program is designed to meet the educational and training needs of the student interested in design and design theory from both the historical perspective and from hands-on design. The emphasis of this certificate provides the training necessary for an entry-level position in the field of architectural design. The certificate also includes an emphasis in sustainable design to introduce the student to the building design skills and materials selection required in today's changing environment.

## Required:

ARC 110 Architectural Design Principles ............................................................... 4
ARC 122 Principles of Green Design ...................................................................... 3
ARC 201 Architectural Design Studio I ................................................................... 4
ARC 223 History of Architecture ............................................................................. 3
ART 110 Drawing I ................................................................................................. 3
ART 121 Design I .................................................................................................... 3

## Architectural Studies Technology Certificate

This 21 credit-hour certificate program contains the core courses needed to gain an understanding of the basic information required for employment with an architect, contractor, sub-contractor or engineer. Students receive coursework in presentation of project information, computer drafting on industry standard software and knowledge for selecting responsible building materials and details for all but the largest projects. Upon completion of this certificate, students would be prepared for an entry-level position in this rewarding career.

## Required:

| ARC | 105 | Presentation and Communication Tools ............................................. |
| :---: | :---: | :---: |
| ARC | 106 | Introduction to Architecture and Drawing Fundamentals ....................... |
| ARC | 113 | Building Materials I |
| ARC | 116 | Architectural CAD I . |
| ARC | 117 | Architectural CAD II |
| ARC | 213 | Building Materials II ......... |

## BUILDING CODES AND ENFORCEMENT

Building Codes and Enforcement Certificate
This 24 credit-hour certificate program is designed to prepare students for direct employment in the building code enforcement industry. These technical courses are intended to provide students with the basic knowledge of building codes and enforcement. This program covers the latest international construction codes and sustainable green technology incorporated in modern industry.

## Required:

| BCE | 101 | Basic Construction for Building Codes |
| :---: | :---: | :---: |
| BCE | 102 | Basic Code Enforcement Techniques |
| BCE | 104 | Basic Mechanical and Energy Conservation Codes . |
| BCE | 105 | Basic Plumbing Codes |
| BCE | 106 | Basic Electrical Codes |
| BCE | 201 | Basic Building Codes . |
| BCE | 202 | International Fire Codes |
| BCE | 203 | National Green Building Code Standards |

## BUSINESS ADMINISTRATION

## Associate in Applied Science A.A.S.: Business Administration Degree

This 61-62 credit-hour program is designed to assist students in a wide variety of business occupations. The curriculum is structured to meet the needs of individuals interested in gaining or improving business knowledge and management skills. The program develops abilities that will help organize, coordinate and evaluate the functions of a unit, department or branch of an organization in either an industrial or administrative management capacity. This degree also provides the fundamental management skills needed by the successful ownermanager of a business. Depending on the study area selected, students will gain knowledge and practical skills in finance, international business, management, marketing, small business management or supply chain management.
Students must choose a specialization that fits their interests and needs and complete 12 credit hours of course work from the area of study.

## Required General Education Courses:

| ENG | 101 | Composition |
| :---: | :---: | :---: |
|  |  | Humanities elective ${ }^{+}$ |
| MGT | 150 | Business Math or |
|  |  | Mathematics elective ${ }^{1}$ |
| PSY | 101 | Introduction to Psychology ................................................................ |
| PSY | 245 | Industrial/Organizational Psychology .................................................. |
| SPE | 101 | Fundamentals of Speech Communication ........................................... |

## Required Core Courses:

| ACC | 101 | Introduction to Financial Accounting | 4 |
| :---: | :---: | :---: | :---: |
| ACC | 102 | Introduction to Managerial Accounting | 3 |
| ACC | 211 | Business Law I. | 3 |
| CIS | 100 | Computer Fundamentals or |  |
| CIS | 101 | Introduction to Computer Information Systems | 3 |
| ECO | 211 | Microeconomics | 3 |
| ECO | 212 | Macroeconomics | 3 |
| MGT | 111 | Introduction to Business Organization | 3 |
| MGT | 218 | Introduction to Finance .... | 3 |
| MGT | 270 | Principles of Management | 3 |
| MKT | 245 | Principles of Marketing ... | 3 |

## Specialized Study Areas:

FINANCIAL MANAGEMENT - Required:
FIN $101 \quad$ Financial Institution Operations .............................................................. 3
FIN 200 Investment Management ................................................................................. 3

FIN $215 \quad$ Financial Statements Interpretation and Analysis ......................................... 3
FIN 225 International Finance .................................................................................. 3
INTERNATIONAL BUSINESS - Required:

| MGT | 115 | Introduction to International Business or |
| :---: | :---: | :---: |
|  |  | International Business or Business Administration elective ${ }^{2}$ |
| MGT | 165 | onal Manage |

- 2

MANAGEMENT - Required:

MGT $160 \quad$| Principles of Supervision or |
| :--- |
| Management or Business Administration elective ${ }^{4} \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots . . . . . . . . . . . . . . . . . . . . . . ~$ | 3

MGT 265 Human Resources Management ............................................................ 3
MGT 280 Organizational Behavior .......................................................................... 3
MGT 291 Problems in Management and Supervision ${ }^{2}$............................................ 3
MARKETING - Required:
MKT 140 Principles of Professional Selling ............................................................. 3
MKT 217 Advertising ............................................................................................... 3
MKT 247 Consumer Buying Behavior or
Marketing or Business Administration elective ${ }^{5}$........................................ 3
MKT $280 \quad$ Marketing Problems ${ }^{2}$ or
MKT 281 Internship in Marketing ${ }^{2}$.......................................................................... 3
SMALL BUSINESS MANAGEMENT - Required:
MGT 154 Small Business Management ................................................................. 3
MGT $160 \quad \begin{aligned} & \text { Principles of Supervision or } \\ & \text { Small Business Management or Business Administration elective }{ }^{6} \text {.......... } 3\end{aligned} ~$
MGT 254 Small Business Formation ........................................................................ 3
MGT 211 Internship in Small Business ${ }^{2}$................................................................. 3

## BUSINESS ADMINISTRATION



+ Students must take a course that meets the World Cultures and Diversity graduation requirement.
1 The mathematics elective must be MTH 103 or above. Students should meet with a Student Development Faculty Counselor or the program coordinator for an appropriate MTH course.
2 International Business electives: CHN 101, CHN 102, CHN 201, CHN 202, FRN 101, FRN 102, FRN 201, FRN 202, GER 101, GER 102, GER 201, GER 202, JPN 101, JPN 102, JPN 201, JPN 202, MGT 154, MGT 160, MGT 254, MGT 265, MGT 280, MGT 291, MKT 140, MKT 191, MKT 193, MKT 196, MKT 217, MKT 240, MKT 247, MKT 280, MKT 281, MKT 285, SCM 101, SCM 120, SCM 121, SCM 281. SPA 101, SPA 102, SPA 201, SPA 202. Business Administration electives: ACC 216, MCM 233, MGT 165, MGT 168, MGT 170, MGT 204, MGT 205 MGT 206, MGT 207, MGT 211, MGT 225, MGT 230, MGT 266, MGT 274, MGT 275, MGT 276, MKT 105, MKT 106, MKT 110, MKT 141, MKT 190, MKT 191, MKT 193, MKT 196, MKT 202, MKT 250, MKT 251, MKT 252, MKT 255, MKT 260, MKT 285, SCM 122, SCM 123, SCM 124, SCM 125, SCM 226, SCM 227, SCM 230, SCM 259.
3 This course is considered the program's capstone and should be taken at the end of the student's course work.
4 Management electives: MGT 115, MGT 154, MGT 254, MKT 140, MKT 191, MKT 193, MKT 196, MKT 217, MKT 240, MKT 247, MKT 280, MKT 281, MKT 285, MKT 290, SCM 101, SCM 120, SCM 121, SCM 281. Business Administration electives: ACC 216, MCM 233, MGT 165, MGT 168, MGT 170, MGT 204, MGT 205 MGT 206, MGT 207, MGT 211, MGT 225, MGT 230, MGT 266, MGT 274, MGT 275, MGT 276, MKT 105, MKT 106, MKT 110, MKT 141, MKT 190, MKT 191, MKT 193, MKT 196, MKT 202, MKT 250, MKT 251, MKT 252, MKT 255, MKT 260, MKT 285, SCM 122, SCM 123, SCM 124, SCM 125, SCM 226, SCM 227, SCM 230, SCM 259.
5 Marketing electives: MGT 115, MGT 154, MGT 160, MGT 254, MGT 265, MGT 280, MGT 291, MKT 191, MKT 193, MKT 196, MKT 217, MKT 240, MKT 251, MKT 290, SCM 101, SCM 120, SCM 121, SCM 281. Business Administration electives: ACC 216, MCM 233, MGT 165, MGT 168, MGT 170, MGT 204, MGT 205 MGT 206, MGT 207, MGT 211, MGT 225, MGT 230, MGT 266, MGT 274, MGT 275, MGT 276, MKT 105, MKT 106, MKT 110, MKT 141, MKT 190, MKT 191, MKT 193, MKT 196, MKT 202, MKT 250, MKT 251, MKT 252, MKT 255, MKT 260, MKT 285, SCM 122, SCM 123, SCM 124, SCM 125, SCM 226, SCM 227, SCM 230, SCM 259.
6 Small Business Management electives: MGT 115, MGT 160, MGT 265, MGT 280, MGT 291, MKT 140, MKT 191, MKT 193, MKT 196, MKT 280, MKT 281, MKT 285, MKT 290, SCM 101, SCM 120, SCM 121, SCM 281. Business Administration electives: ACC 216, MCM 233, MGT 165, MGT 168, MGT 170, MGT 204, MGT 205 MGT 206, MGT 207, MGT 211, MGT 225, MGT 230, MGT 266, MGT 274, MGT 275, MGT 276, MKT 105, MKT 106, MKT 110, MKT 141, MKT 190, MKT 191, MKT 193, MKT 196, MKT 202, MKT 250, MKT 251, MKT 252, MKT 255, MKT 260, MKT 285, SCM 122, SCM 123, SCM 124, SCM 125, SCM 226, SCM 227, SCM 230, SCM 259.
7 Supply Chain Management electives: MGT 115, MGT 154, MGT 160, MGT 254, MGT 265, MGT 280, MGT 291, MKT 140, MKT 191, MKT 193, MKT 196, MKT 217, MKT 240, MKT 280, MKT 281, MKT 285, MKT 290. Business Administration electives: ACC 216, MCM 233, MGT 165, MGT 168, MGT 170, MGT 204, MGT 205 MGT 206, MGT 207, MGT 211, MGT 225 , MGT 230, MGT 266 , MGT 274 , MGT 275 , MGT 276 , MKT 105, MKT 106, MKT 110 , MKT 141 , MKT 190, MKT 191, MKT 193, MKT 196, MKT 202, MKT 250, MKT 251, MKT 252, MKT 255, MKT 260, MKT 285, SCM 122, SCM 123, SCM 124, SCM 125, SCM 226, SCM 227, SCM 230, SCM 259.


## CARDIOGRAPHIC TECHNICIAN

## Cardiographic Technician Certificate

This 17 credit-hour certificate prepares students or graduates of direct patient care programs to perform and interpret rhythm and 12 lead ECGs. It provides training in telemetry surveillance, holter monitoring and maximal stress testing. This certificate enhances the skill set and employability of direct patient care providers such as nurses and medical office assistants working in the cardiology arena. It also prepares graduates for the Cardiographic Technician examination and credential offered by Cardiovascular Credentialing International.
Due to the nature of clinical experiences and individualized instruction required in this program, and the specialized technology and equipment necessary, a higher tuition rate will be assessed for the career-specific courses with the CGT prefix. Tuition for these courses will be 200 percent of the standard tuition rate.

## Admission Requirements:

Cardiographic Technician is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

## PREREQUISITES

A grade of $C$ or better in all coursework is required for all students.

| BIO | 135 | Introduction to Human Anatomy and Physiology |
| :---: | :---: | :---: |
| ENG | 101 | Composition ................. |

## REQUIRED

A grade of $C$ or better in all coursework is required for all students.

| CGT | 101 | Electrocardiography | 0-2 |
| :---: | :---: | :---: | :---: |
| CGT | 102 | Electrocardiography II | 0-2 |
| HSC | 104 | Health Care Technology and Informatics ${ }^{1}$ | 0-2 |
| HSC | 107 | Basic Health Care Skills ${ }^{2}$ | 0-1 |
| HSC | 112 | Medical Terminology | 0-2 |
| HSC | 165 | Basic Pharmacology | 0-1 |

## OPTIONAL

A grade of C or better in all coursework is required for all students.
CGT 204 Cardiovascular Principles ................................................................................ 0-3
1 Students may substitute 2-3 credit hours of CAS/CIS courses completed within the last five years.
2 See the Health Science Coordinator for course substitutions, waivers or proficiency testing.

## COMPUTER INFORMATION SYSTEMS

## Associate in Applied Science A.A.S.: Computers in Business Degree

The 60-61 credit-hour technical curriculum prepares students for various positions in the field of computers. The student will take courses in business, computer information systems and general education. The student may choose from six specialized study areas: Applications, Computer Support, Database Management, Healthcare, Management Information Systems, and Network Administration. Graduates of the program may find employment as desktop support technicians, database administrators, information technology supervisors, network administrators, and consultants.

## Required General Education Courses:

| ENG | 101 | Composition |
| :---: | :---: | :---: |
| ENG | 102 | Composition or |
| ENG | 103 | Technical and Report Writing or |
| SPE | 101 | Fundamentals of Speech Communication |
|  |  | Humanities, Natural Science, or Social Science electives ${ }^{1,+}$ |
|  |  | Mathematics elective ${ }^{2}$ |

## Required Core Courses:

| CAS | 160 | Introduction to Business Software Packages ....................................... |
| :---: | :---: | :---: |
| CIS | 101 | Introduction to Computer Information Systems |
| NET | 105 | Introduction to Operating Systems |

Specialized Study Areas:

## APPLICATIONS Required:

|  |  | Applications electives ${ }^{3}$ | 6 |
| :---: | :---: | :---: | :---: |
| CAS | 110 | Microsoft Word Certification | 1 |
| CAS | 120 | Microsoft Excel Certification | 1 |
| CAS | 130 | Microsoft Access Certification | 1 |
| CAS | 135 | Presentation Software | 1 |
| CAS | 140 | Microsoft PowerPoint Certification | 1 |
| CAS | 150 | Microsoft Outlook Certification | 1 |
| CAS | 175 | Desktop Publishing Software | 1 |
| CAS | 205 | Advanced Word Processing Software | 1 |
| CAS | 215 | Advanced Spreadsheet Software | 1 |
| CAS | 260 | Office Application Development | 3 |
| NET | 111 | A+ Hardware | 3 |
| NET | 112 | A+ Operating Systems Technologies | 3 |
| NET | 121 | Introduction to Networking | 3 |
| NET | 201 | Help Desk/Soft Skills . | 3 |
| WEB | 150 | Web Development I .... | 3 |

COMPUTER SUPPORT Required:
CAS 175 Desktop Publishing Software .................................................................. 1
CAS 205 Advanced Word Processing Software ..................................................... 1
CAS 215 Advanced Spreadsheet Software ............................................................ 1
CIS 143 Introduction to Database Systems ........................................................... 3
NET 111 A+ Hardware ........................................................................................... 3
NET 112 A+ Operating Systems Technologies ..................................................... 3
NET 121 Introduction to Networking ....................................................................... 3
NET 122 Internet Protocols ................................................................................... 3
NET 201 Help Desk/Soft Skills ............................................................................... 3
$\begin{array}{lll}\text { NET } & 231 & \text { Windows Scripting or } \\ \text { NET } & 236 & \text { Linux Shell Scripting }\end{array}$.......................................................................... 3
NET 240 Linux Fundamentals ............................................................................... 3
NET 260 Windows Server Administration ............................................................... 3
WEB 150 Web Development I ................................................................................. 3
DATABASE MANAGEMENT Required:

| CIS | 106 | Computer Logic and Programming Technology ................................... |
| :---: | :---: | :---: |
| CIS | 143 | Introduction to Database Systems |
| CIS | 243 | Database Administration |
| CIS | 244 | Database Design and Implementation |
|  |  |  |
| NET | 111 | A+ Hardware .................................................................................. |
| NET | 112 | A+ Operating Systems Technologies ................................................ |
| NET | 121 | Introduction to Networking . |
| NET | 122 | Internet Protocols ............. |

## COMPUTER INFORMATION SYSTEMS

HEALTHCARE Required

CIS 211
IT Project Managment Design ..... 3
HIT 200 Introduction to Health Information Systems ..... 4
HIT 220 Health Care Information Management ..... 3
HSC 112 Medical Terminology ..... 0-2
NET 111 A+ Hardware ..... 3
NET 112 A+ Operating Systems Technologies ..... 3
NET 121 Introduction to Networking ..... 3
NET 122 Internet Protocols ..... 3
NET 231 Windows Scripting or NET 236 Linux Shell Scripting3
NET 280 Network Security Fundamentals ..... 3
MANAGEMENT INFORMATION SYSTEMS Required:
ACC 101 Introduction to Financial Accounting4
ACC 102 Introduction to Managerial Accounting ..... 3
ACC 211 Business Law ..... 3
CIS 106 Computer Logic and Programming Technology ..... 3
CIS 143 Introduction to Database Systems ..... 3
CIS 211 IT Project Managment Design ..... 3
MGT $111 \quad$ Introduction to Business Organization ..... 3
MGT $270 \quad$ Principles of Management ..... 3
MKT $245 \quad$ Principles of Marketing ..... 3
NET 121 Introduction to Networking ..... 3
WEB 150 Web Development I or
WEB 240 E-Commerce Development3
NETWORK ADMINISTRATION Required:
NET 111 A+ Hardware ..... 3
NET $112 \quad$ A+ Operating Systems Technologies ..... 3
NET $121 \quad$ Introduction to Networking ..... 3
NET 122 Internet Protocols ..... 3
NET $231 \quad$ Windows Scripting or
NET 236 Linux Shell Scripting ..... 3
NET 240 Linux Fundamentals ..... 3
NET 260 Windows Server Administration ..... 3
NET 270 Cisco Networking (CCNA) ..... 3
NET 280 Network Security Fundamentals ..... 3
NET 299 Networking Capstone3
Network Administration elective ${ }^{6}$ ..... 3

1,+ Students must take nine credit hours in a minimum of two of these areas; three hours must be in a course that meets the World Cultures and Diversity graduation requirement. Students specializing in Healthcare must take BIO 135, BIO 136, and a Humanities or Social Science course that meets the World Cultures and Diversity graduation requirement.
2 Students must take at least three credit hours in a mathematics course at the level of MTH 101 or above.
3 Applications electives: Students must take 6 credit hours from CAS 226, WEB 170, WEB 180, WEB 200 or WEB 220.
4 Database Management electives: Students must take nine credit hours selected from CIS 168, CIS 181, CIS 182, CIS 203, CIS 211, CIS 268, CIS 281, MGT 111, NET 240, NET 260, WEB 150, WEB 200 or WEB 250.
5 Healthcare electives: Students must take four credit hours selected from HSC 104, HSC 105, HSC 213, HIT 225 or HIT 250.
6 Network Administration electives: Students must take three credit hours selected from NET 182, NET 201, NET 221, NET 222, NET 223.

## Associate in Applied Science A.A.S.: Software Development Degree

The 60 credit-hour curriculum prepares students for various software development positions in the field of computer information systems. The student will take courses in computer information systems, Java and Microsoft .NET software development, Web development, system analysis and design, and general education. Graduates of the program may find employment as software developers, systems analysts, or consultants.
FIRST YEAR First Semester


## COMPUTER INFORMATION SYSTEMS



## Business Software Specialist Certificate

This 15 credit-hour certificate program provides students with experience in a variety of business software applications including word processing, spreadsheets, database, presentation email, desktop publishing and basic operating system concepts. These courses will help students prepare for Microsoft certification and qualify for entry-level jobs as administrative assistants and office services assistants.

## Required:

| CAS | 105 | Word Processing Software and |  |
| :---: | :---: | :---: | :---: |
| CAS | 115 | Spreadsheet Software and |  |
| CAS | 125 | Database Software or |  |
| CAS | 160 | Introduction to Business Software Packages | 3 |
| CAS | 110 | Microsoft Word Certification | 1 |
| CAS | 120 | Microsoft Excel Certification | 1 |
| CAS | 130 | Microsoft Access Certification | 1 |
| CAS | 135 | Presentation Software | 1 |
| CAS | 140 | Microsoft PowerPoint Certification | 1 |
| CAS | 150 | Microsoft Outlook Certification | 1 |
| CAS | 175 | Desktop Publishing Software | 1 |
| CAS | 215 | Advanced Spreadsheet Software | 1 |
| CAS | 225 | Advanced Database Software | 1 |
| NET | 105 | Introduction to Operating Systems | 3 |

## Computer Support Technician Certificate

This 6 credit-hour certificate program provides students with experience installing, configuring, maintaining and troubleshooting computer hardware and operating systems. These courses will help students prepare for the CompTIA A+ certification exams and qualify for entrylevel jobs as computer support technicians.

## Required:

| NET | 111 | A+ Hardware .................................................................................. |
| :---: | :---: | :---: |
| NET | 112 | A+ Operating Systems Technologies |

## Computers in Business Certificate

This is a 15 credit-hour certificate program designed to familiarize a student with the business uses of computers. The student will gain exposure to computer concepts and computer software. This exposure will be useful to the person whose job or business requires the use of a computer.

## Required:

| CAS | 105 | Word Processing Software and |
| :--- | :--- | :--- |
| CAS | 115 | Spreadsheet Software and |
| CAS | 125 | Database Software or |
| CAS | 160 | Introduction to Business Software Packages ......................................... |
| CIS | 100 | Computer Fundamentals or |

## COMPUTER INFORMATION SYSTEMS

| CIS | 101 | Introduction to Computer Information Systems ....................................... | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## Database Management Certificate

This 12 credit-hour certificate program provides students with experience designing, implementing and administering relational databases using Structured Query Language (SQL). These courses will help students prepare for entry-level jobs as database analysts.

## Required:

| CAS | 160 | Introduction to Business Software Packages |
| :---: | :---: | :---: |
| CIS | 143 | Introduction to Database Systems |
| CIS | 243 | Database Administration ................................................................. |
| CIS | 244 | Database Design and Implementation |

## Software Development Certificate

This 23 credit-hour certificate program is designed to prepare students for business software development using either Microsoft .NET or Sun Java. The student will be prepared for an entry-level software development position.
Required:
CAS 160 Introduction to Business Software Packages .......................................... 3
CIS 101 Introduction to Computer Information Systems ......................................... 3


WEB 150 Web Development I ................................................................................ 3
Electives: Choose 8 credit hours from either:

| CIS | 168 | Java Software Development I and |
| :--- | :--- | :--- |
| CIS | 268 | Java Software Development II or |
| CIS | 182 | Visual C\# Software Development and |
| CIS | 281 | Microsoft.NET Web Development ....... |

4

[^17]
## COMPUTER NETWORKING

## Network Administration Certificate

This 12 credit-hour certificate program provides students with experience in Cisco, Linux, Microsoft, and network security administration. These courses will help students prepare for Cisco CCNA, CompTIA, Linux + and Security + , and Microsoft MTA certification exams, as well as qualify for entry-level jobs as network support specialists. Students must have CompTIA+ and Network+ certification or similar experience before specializing in network administration. See the Networking Fundamentals Certificate for entry-level courses.

## Required:

NET 240 Linux Fundamentals .............................................................................. 3
NET 260 Windows Server Administration ............................................................. 3
NET 270 Cisco Networking (CCNA) ..................................................................... 3
NET 280 Network Security Fundamentals ............................................................ 3

## Network Support Technician Certificate

This 6 credit-hour certificate program provides students with experience installing, configuring, maintaining and troubleshooting basic network infrastructure. These courses will help students prepare for the CompTIA Network+ certification exam and qualify for entry-level jobs as network support technicians.

## Required:

| NET | 121 | Introduction to Networking.................................................................................................................................................................$~$ | 3 |
| :--- | :--- | :--- | :--- |

## Networking Fundamentals Certificate

This 18 credit-hour certificate program provides students with experience installing, configuring, maintaining and troubleshooting computer hardware, operating systems, and basic network infrastructure. These courses will help students prepare for the CompTIA A+ and Network+ certification exams and qualify for entry-level jobs as computer and network support technicians.

## Required:

| NET | 105 | Introduction to Operating Systems .................................................... |
| :---: | :---: | :---: |
| NET | 111 | A+ Hardware |
| NET | 112 | A+ Operating Systems Technologies ................................................. |
| NET | 121 | Introduction to Networking |
| NET | 122 | Internet Protocols |
| NET | 201 | Help Desk/Soft Skills |

## DENTAL HYGIENE

## Associate in Applied Science A.A.S.: Dental Hygiene Degree

This program meets state guidelines and is accredited by the Commission on Dental Accreditation of the American Dental Association.
Because of the nature of clinical experiences and individualized instruction required in this program and specialized technology and the equipment necessary to offer this program, a higher tuition rate is assessed for career specific courses. These include courses with the prefix DHY. Tuition for these courses in this program is 200 percent of the standard tuition rate.
Prior to receiving a license in the practice of dental hygiene, graduates must successfully complete the program and pass the Dental Hygiene Written National Board exam and a Regional Clinical exam.

## Admission Requirements:

Dental Hygiene is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu.

Students who apply for this limited enrollment program are obligated to meet the current admission requirements and follow program curriculum as defined at the time of acceptance to the program.
Upon admission to the Dental Hygiene program, the mathematics requirement is met.

## PREREQUISITES

A grade of C or better in all BIO, CHM, DHY and DIT courses is required for all students.


## FIRST YEAR First Semester

A grade of C or better in all BIO, CHM, DHY and DIT courses is required for all students.

| BIO | 130 | Microbiology ${ }^{1}$ | 4 |
| :---: | :---: | :---: | :---: |
| DHY | 100 | Pre-Clinic | 5 |
| DHY | 159 | Head and Neck Anatomy | 3 |
| DHY | 161 | Dental Anatomy | 2 |
| DIT | 101 | Fundamentals of Nutrition | 0-3 |

## Second Semester

A grade of C or better in all $\mathrm{BIO}, \mathrm{CHM}$, DHY and DIT courses is required for all students.

| DHY | 101 | Clinical Dental Hygiene I .................................................................. |
| :---: | :---: | :---: |
| DHY | 111 | Dental Radiology |
| DHY | 190 | General and Oral Pathology ............................................................. |
| SOC | 101 | Introduction to Sociology ${ }^{+}$ |
| SPE | 101 | Fundamentals of Speech Communication ........................................ |

## Summer Semester

A grade of C or better in all BIO, CHM, DHY and DIT courses is required for all students.

| DHY | 119 | Oral Health Management of Special Needs Populations ........................ |
| :---: | :---: | :---: |
| DHY | 151 | Clinical Dental Hygiene II .................................................................. |
| DHY | 269 | Science of Dental Materials |
| DHY | 270 | Dental Materials Laboratory Techniques |

## SECOND YEAR First Semester

A grade of C or better in all BIO, CHM, DHY and DIT courses is required for all students.

| DHY | 200 | Periodontology | 2 |
| :---: | :---: | :---: | :---: |
| DHY | 202 | Radiology I | 1 |
| DHY | 220 | Community Dental Health I | 2 |
| DHY | 230 | Pain Management | 2 |
| DHY | 240 | Dental Pharmacology | 2 |
| DHY | 250 | Clinical Dental Hygiene III | 5 |

## Second Semester

A grade of C or better in all BIO, CHM, DHY and DIT courses is required for all students.
DHY 201 Ethics, Jurisprudence and Practice Management .................................... 2

DHY 203 Radiology II .................................................................................................... 1
DHY 221 Community Dental Health II ..................................................................... 2
DHY 251 Clinical Dental Hygiene IV ...................................................................... 5

[^18]
## DIAGNOSTIC CARDIAC SONOGRAPHY


#### Abstract

Associate in Applied Science A.A.S.: Diagnostic Cardiac Sonography Degree This 69-70 credit-hour program prepares the graduate to be a diagnostic cardiac sonographer. A diagnostic cardiac sonographer is a highly skilled professional who uses specialized ultrasound equipment to record visual images of the heart. They work in hospitals and outpatient settings producing these echocardiograms to assist the physician in diagnosing heart disease. This degree prepares the graduate to secure their American Registry of Diagnostic Medical Sonography credential and entry-level work in the adult echo specialty area. The graduate also receives instruction in basic vascular sonography as well as EKG-related diagnostic testing. A clinical hospital experience in echocardiography is provided. Because of the nature of clinical experiences and individualized instruction required in this program and specialized technology and the equipment necessary to offer this program, a higher tuition rate is assessed for career-specific courses including courses with the DCS prefix. Tuition for the courses in this program is 200 percent of the standard tuition rate.

\section*{Admission Requirements:}

Diagnostic Cardiac Sonography is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu. Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.


## PREREQUISITES

A grade of $C$ or better in all coursework is required for all students.

| BIO | 160 | Human Anatomy ${ }^{1}$ | 4 |
| :---: | :---: | :---: | :---: |
| BIO | 161 | Human Physiology ${ }^{1}$ | 4 |
| ENG | 101 | Composition | 3 |
|  |  | Mathematics elective ${ }^{2}$ | 3-4 |
| PHY | 100 | Basic Concepts in Physics ${ }^{3}$ | 3 |

## FIRST YEAR First Semester

A grade of $C$ or better in all coursework is required for all students.

| DCS | 101 | Electrocardiography I | 2 |
| :---: | :---: | :---: | :---: |
| DCS | 105 | Ultrasound Physics/Instrumentation 1 | 2 |
| DCS | 107 | Sonography Theory I | 2 |
| DCS | 109 | Sonography Lab ${ }^{4}$ | 1 |
| HSC | 107 | Basic Health Care Skills | 0-1 |
| HSC | 112 | Medical Terminology | 0-2 |
| HSC | 165 | Basic Pharmacology . | 0-1 |

## Second Semester

A grade of $C$ or better in all coursework is required for all students.

| DCS | 102 | Electrocardiography II | 2 |
| :---: | :---: | :---: | :---: |
| DCS | 106 | Ultrasound Physics/Instrumentation 2 | 2 |
| DCS | 108 | Sonography Theory II . | 2 |
| DCS | 110 | Sonography Lab II ${ }^{4}$ | 1 |
| HSC | 104 | Health Care Technology and Informatics | 0-2 |
| HSC | 213 | Legal and Ethical Issues in Health Care .......................................... | 0-2 |

## Summmer Semester (Optional)

A grade of $C$ or better in all coursework is required for all students.
DCS 112 Sonography Lab III5 ............................................................................... 1

SECOND YEAR First Semester
A grade of $C$ or better in all coursework is required for all students.
DCS 204 Cardiovascular Principles .................................................................... 3

DCS 207 Cardiac Sonography Theory I ..................................................................................................... 5
DCS 209 Cardiac Sonography Lab I4 ..................................................................... 2


## Second Semester

A grade of $C$ or better in all coursework is required for all students.

| DCS | 208 | Cardiac Sonography Theory II |
| :---: | :---: | :---: |
| DCS | 210 | Cardiac Sonography Lab II ${ }^{4}$ |
| DCS | 220 | Intro to Cardiac Sonog Clinical . |
| SPE | 101 | Fundamentals of Speech Communication ....................................... |

## Summer Semester

A grade of $C$ or better in all coursework is required for all students.
DCS 230 Cardiac Sonography Clinical ${ }^{6}$................................................................. 5

## DIAGNOSTIC CARDIAC SONOGRAPHY

## Summer Semester (Optional)

A grade of C or better in all coursework is required for all students.
DCS 260 Advanced Sonography Seminar ${ }^{5}$ $\qquad$
1 Must be completed no earlier than five years prior to beginning the DCS program; time requirement may be waived for direct patient care providers with a minimum of a two-year allied health care degree.
2 MTH 165 is recommended. MTH 101, MTH 103, or higher with a grade of $C$ or better may be substituted.
3 PHS 111 or PHY 121 or higher with a grade of C or better may be substituted.
4 Every credit hour of sonography lab requires a minimum of 2 hours per week sonography lab practice.
5 This course is optional and not required for graduation.

+ Students need to choose a course to meet this requirement that also fulfills the World Cultures and Diversity graduation requirement.
6 Assignments will be based on site availability.


## DIAGNOSTIC MEDICAL SONOGRAPHY


#### Abstract

Associate in Applied Science A.A.S.: Diagnostic Medical Sonography Degree This 71-72 credit-hour program prepares the graduate to be a diagnostic medical sonographer. A diagnostic medical sonographer is a highly skilled professional who uses specialized ultrasound equipment to record visual images of internal structures of the abdomen, pelvis and neck. They work in hospitals and outpatient settings producing these ultrasounds to assist the physician in diagnosing disease. This degree program prepares the graduate to secure their American Registry of Diagnostic Medical Sonography credentials and entry-level work in the abdomen and obstetrics/gynecology specialty areas. The graduate also receives instruction in vascular sonography. A clinical hospital experience in abdominal, small parts, vascular, obstetrical and gynecological ultrasound is provided.

Because of the nature of clinical experiences and individualized instruction required in this program and specialized technology and the equipment necessary to offer this program, a higher tuition rate is assessed for career-specific courses, including courses with the DMS prefix. Tuition for these courses in this program is 200 percent of the standard tuition rate.

\section*{Admission Requirements:}

Diagnostic Medical Sonography is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.


## PREREQUISITES

A grade of $C$ or better in all coursework is required for all students.

| BIO | 160 | Human Anatomy ${ }^{1}$ | 4 |
| :---: | :---: | :---: | :---: |
| BIO | 161 | Human Physiology ${ }^{1}$ | 4 |
| ENG | 101 | Composition | 3 |
|  |  | Mathematics elective ${ }^{2}$ | 3-4 |
| PHY | 100 | Basic Concepts in Physics ${ }^{3}$ | 3 |

## FIRST YEAR First Semester

A grade of $C$ or better in all coursework is required for all students.
DMS $105 \quad$ Ultrasound Physics/Instrumentation 1 ..................................................... 2

DMS 107 Sonography Theory I .............................................................................. 2
DMS 109 Sonography Lab I4 .................................................................................... 1
HSC 107 Basic Health Care Skills ...................................................................... 0-1
HSC 112 Medical Terminology ............................................................................ 0-2
HSC 165 Basic Pharmacology ........................................................................... 0-1
Humanities or Social Science elective ${ }^{+}$................................................... 3

## Second Semester

A grade of $C$ or better in all coursework is required for all students.

| DMS | 106 | Ultrasound Physics/Instrumentation 2 | 2 |
| :---: | :---: | :---: | :---: |
| DMS | 108 | Sonography Theory II | 2 |
| DMS | 110 | Sonography Lab II ${ }^{4}$ | 1 |
| HSC | 104 | Health Care Technology and Informatics | 0-2 |
| HSC | 213 | Legal and Ethical Issues in Health Care | 0-2 |
| SPE | 101 | Fundamentals of Speech Communication ... | 3 |

## Summer Semester (Optional)

A grade of $C$ or better in all coursework is required for all students.
$\qquad$

## SECOND YEAR First Semester

A grade of $C$ or better in all coursework is required for all students.
DMS 201 Introduction to the Medical Sonography Clinical ...................................... 2

DMS 204 Abdominal and Small Parts Sonography Theory I .................................... 4
DMS 205 Obstetrical and Gynelogical Sonography Theory I ................................... 3


## Second Semester

A grade of $C$ or better in all coursework is required for all students.
DMS 207 Medical Sonography Clinical ${ }^{6}$................................................................ 5

DMS 208 Abdominal and Small Parts Sonography Theory 2 ...............................................................................................
DMS 209 Medical Sonography Lab II ${ }^{4}$..................................................................... 2
DMS 210 Obstetrical and Gynecological Sonography Theory II ............................... 3

## Summer Semester

A grade of $C$ or better in all coursework is required for all students.


## DIAGNOSTIC MEDICAL SONOGRAPHY

## Summer Semester (Optional)

A grade of $C$ or better in all coursework is required for all students. DMS 260 Advanced Sonography Seminar ${ }^{5}$ $\qquad$ 1

1 Must be completed no earlier than five years prior to beginning the DMS program; time requirement may be waived for direct patient care providers with a minimum of a two-year allied health care degree
2 MTH 165 is recommended. MTH 101, 103 or higher with a grade of $C$ or better may be substituted.
3 PHS 111 or PHY 121 or higher with a grade of C or better may be substituted.
4 Every credit hour of sonography lab requires a minimum of 2 hours per week sonography lab practice.

+ Students need to choose a course to meet this requirement that also fulfills the World Cultures and Diversity graduation requirement.
5 This course is optional and not required for graduation.
6 Assignments will be based on site availability.


## DIETETICS

## Associate in Applied Science A.A.S.: Dietetic Technician Degree

This 62 credit-hour program prepares graduates to work in partnership with a Registered Dietitian in a variety of settings such as hospitals, nursing homes, schools, community health programs, food companies and wellness centers. The dietetic technician screens clients for nutritional risk, assists in the provision of nutrition care including nutrition education and supervises food production and service.

The Dietetic Technician program is currently granted accreditation by the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics, 120 Riverside Plaza, Chicago, IL, 60606-6995, 312.899.5400. Graduates of the program receive a verification statement and are eligible to take the registration examination for Dietetic Technicians to become a Dietetic Technician, Registered (DTR).

The Dietetic Technician program may be taken on a part-time basis and not all courses in the program are offered every semester. To help avoid scheduling conflicts a planning session with the coordinator is recommended.

## FIRST YEAR First Semester

A grade of C or better in all BIO, DIT, FSM, HSC and MGT courses is required.

| BIO | 135 | Introduction to Human Anatomy and Physiology ${ }^{1}$ | 4 |
| :---: | :---: | :---: | :---: |
| DIT | 101 | Fundamentals of Nutrition ................. | 3 |
| DIT | 103 | The Nutrition Care Process | 3 |
| DIT | 220 | Food Systems Administration | 0-3 |
| FSM | 114 | Food Standards and Sanitation | 2 |
| HSC | 112 | Medical Terminology | 0-2 |

## Second Semester

A grade of C or better in all BIO, DIT, FSM, HSC and MGT courses is required.
BIO $136 \quad$ Introduction to Human Disease ${ }^{1} \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ~$ 3

| BIO | 136 | troduction to Human Disease ${ }^{1}$ | 3 |
| :---: | :---: | :---: | :---: |
| DIT | 102 | Medical Nutrition Therapy | 0-3 |
| DIT | 150 | Dietetic Clinical Laboratory I . | 5 |
| ENG | 101 | Composition | 3 |
|  |  | Mathematics elective ${ }^{2}$ | 3 |

## SECOND YEAR First Semester

A grade of C or better in all BIO, DIT, FSM, HSC and MGT courses is required.

| DIT | 110 | Principles of Food Preparation | 0-3 |
| :---: | :---: | :---: | :---: |
| DIT | 200 | Dietetic Clinical Laboratory II | 4 |
| DIT | 201 | Nutrition Education Techniques | 3 |
| FSM | 212 | Hospitality Supervision or |  |
| MGT | 160 | Principles of Supervision | 3 |
| HSC | 165 | Basic Pharmacology | 0-1 |

## Second Semester

A grade of C or better in all BIO , DIT, FSM, HSC and MGT courses is required.


1 BIO 160 and BIO 161 may be substituted for BIO 135 and BIO 136.
2 A competency test, available in the Assessment and Testing Center, may be utilized to meet the mathematics requirement. Students who utilize the competency test to meet the mathematics requirement must complete a three credit-hour elective (select from Groups 1-5).

+ This course meets the World Cultures and Diversity graduation requirement.


## Dietary Manager Certificate

This 19 credit-hour certificate program is designed for persons who desire a position in health care food service supervision. Food service personnel working in nutrition related fields who would like to enhance their management and clinical skills and promotion opportunities may also benefit from this program of study.
A dietary manager performs supervisory and clinical duties necessary to meet the basic nutritional needs of individuals. Supervision of employees, assuring menu acceptance by clients and managing food production are several of the responsibilities of a dietary manager.
The curriculum is approved by the Association for Nutrition and Food Service Professionals. Students who complete the 19 credit-hour certificate are eligible to take a national certification examination.

## First Semester

A grade of C or better in all DIT and FSM courses is required for all students.

| DIT | 101 | Fundamentals of Nutrition |
| :---: | :---: | :---: |
| DIT | 103 | The Nutrition Care Process .............................................................. |
| DIT | 220 | Food Systems Administration. |
| FSM | 114 | Food Standards and Sanitation ......................................................... |

## DIETETICS

## Second Semester

A grade of C or better in all DIT and FSM courses is required for all students.

| DIT | 102 | Medical Nutrition Therapy ............................................................ 0-3 |
| :---: | :---: | :---: |
| DIT | 150 | Dietetic Clinical Laboratory I |

## EARLY CHILDHOOD EDUCATION


#### Abstract

Associate in Applied Science A.A.S.: Early Childhood Education Degree The 60 credit-hour curriculum is designed to provide students with the requisite skills and theoretical knowledge to work in a variety of facilities for young children as a teacher or director for half-day and full day early childhood centers, a teacher's assistant in academic atrisk, special needs and public school classrooms, resource and referral agencies, before/after school care, recreational programs and related settings. Students must choose a basic program of study as a teacher or director. - Upon completion of courses for the specialized area of teacher, students need to complete an IL Gateways application to qualify for the Illinois ECE Credential Level 4. - Upon completion of courses for the specialized area of teacher and ECE 112, students need to complete an IL Gateways application to qualify for the Illinois Infant/Toddler Credential Level 4. - Upon completion of courses for the specialized area of director, demonstration of proof of First Aid/CPR certification and verification of 1200 hours of management experience, students need to complete an IL Gateways application to qualify for the Illinois Director Credential Level 1.


## Required General Education Courses:

| ENG | 101 | Composition | 3 |
| :---: | :---: | :---: | :---: |
| ENG | 103 | Technical and Report Writing or |  |
| SPE | 101 | Fundamentals of Speech Communication | 3 |
|  |  | Humanities elective ${ }^{+}$ | 3 |
|  |  | Mathematics elective ${ }^{1}$ | 3 |
|  |  | Natural Science elective ${ }^{2}$ | 3 |
| PSY | 101 | Introduction to Psychology | 3 |
| Core Courses: |  |  |  |
| ECE | 101 | Introduction to Early Childhood Education | 3 |
| ECE | 102 | Child Development | 3 |
| ECE | 115 | Principles of Early Childhood Curriculum | 3 |
| ECE | 226 | Assessment and Guidance | 3 |
| ECE | 250 | Health, Nutrition and Safety | 3 |
| ECE | 252 | Child-Family-Community . | 3 |
| EDU | 219 | Students With Disabilities in School | 3 |

## Specialized Study Areas: Choose one of the specialized study areas:

 Early Childhood Education: Teacher
## Required:

ECE 111 Infant/Toddler Programs ................................................................................ 3
ECE 209 Language Development and Activities for the Young Child ..................................................................................

ECE 210 Creative Activities for Young Children ..................................................... 3
ECE 221 Math and Science for the Young Child .................................................... 3
ECE 291 Early Childhood Practicum I ................................................................... 3
ECE 292 Early Childhood Practicum II .................................................................. 3
ECE electives ${ }^{3}$.......................................................................................... 3

## Early Childhood Education: Director

Required:
ECE 253 Administration of Early Childhood Programs ........................................... 3
ECE 254 Interpersonal Relationships in Early Childhood Education ....................... 1
ECE 293 Early Childhood Director Practicum ............................................................ 3
EDU 250 ECE electives ${ }^{3}$....................................................................................... 3
FSM 114 Food Standards and Sanitation ............................................................. 2
MGT $160 \quad$ Principles of Supervision ...................................................................... 3
MKT 245 Principles of Marketing ........................................................................... 3

+ Humanities elective: HST 210, HUM 110, or MUS 104. All courses meet the World Cultures and Diversity graduation requirement.
1 A competency test, available in the Assessment and Testing Center, may be utilized to meet the mathematics requirement. Students in this program who utilize the competency test to meet the mathematics requirement must complete SOC 101 in order to have the 60 semester hours required for this degree.
2 Natural Science elective: BIO 101, BIO 103, or BIO 105.
3 ECE electives: Any ECE course. Students seeking the ILGateways Infant/Toddler Credential Level 4 must take ECE 112.


## Early Childhood Education: Administrator Certificate

This 19 credit-hour certificate program is designed specifically to meet the training/educational requirements of early childhood centers, as requested by the Illinois Department of Children and Family Services, Text of Adopted Rules.
Minimal education requirements for a director in a licensed child care center are two years of credit from an accredited college or university with 18 credit hours or equivalent quarter hours in courses related to child care and/or child development from birth to age six.

## EARLY CHILDHOOD EDUCATION

## Required:

| ECE | 102 | Child Development |
| :---: | :---: | :---: |
| ECE | 115 | Principles of Early Childhood Curriculum ............................................ |
| ECE | 226 | Assessment and Guidance |
| ECE | 250 | Health, Nutrition and Safety |
| ECE | 252 | Child-Family-Community .................................................................. |
| ECE | 253 | Administration of Early Childhood Programs ....................................... |
| ECE | 254 | Interpersonal Relationships in Early Childhood Education ..................... |

## Early Childhood Education: Assistant Teacher Certificate

This 12 credit-hour curriculum will qualify students for the Illinois ECE Credential-Level 2. Students will need to complete an IL Gateways application. This certificate program will provide an assistant teacher in a licensed child care facility with basic knowledge in early childhood care and education.

## Required:

| ECE | 101 | Introduction to Early Childhood Education . |
| :---: | :---: | :---: |
| ECE | 102 | Child Development |
| ECE | 115 | Principles of Early Childhood Curriculum ........................................... |
| ECE | 250 | Health, Nutrition and Safety |

## Early Childhood Education: Before/After School Care Certificate

This six credit-hour certificate program provides basic knowledge about developmentally appropriate programming and guidance for school age care.

## Required:

| ECE | 226 | Assessment and Guidance |
| :---: | :---: | :---: |
| ECE | 235 | Principles of School Age Care |

## Early Childhood Education: Family Child Care Certificate

This nine credit-hour certificate program provides practical knowledge, including the legal requirements, for administering and running a family child care home.

## Required:

ECE 140 Family Child Care Management ............................................................ 1

ECE 143 Safety for the Young Child .................................................................... 1
ECE 144 Nutrition for the Young Child .................................................................. 1
ECE 151 Communicating With Parents and Children ............................................ 1
ECE $152 \quad$ Principles of Child Growth and Development, Birth-5 .............................. 1
ECE 153 Guiding Children and Managing the Classroom .............................................. 1
ECE 154 Activities and Resources for Young Children I ....................................... 1
ECE 155 Activities and Resources for Young Children II .......................................... 1

## Elective: Select one course from the following:



## Early Childhood Education: Infant/Toddler Certificate

This 15 credit-hour certificate program will qualify students for the Illinois Infant Toddler Credential - Level 2. Students will need to complete an IL Gateways application. This certificate will provide an assistant teacher in a licensed child care facility with basic knowledge in infant/ toddler care and education.

## Required:

| ECE | 101 | Introduction to Early Childhood Education |
| :---: | :---: | :---: |
| ECE | 102 | Child Development |
| ECE | 111 | Infant/Toddler Programs |
| ECE | 115 | Principles of Early Childhood Curriculum |
| ECE | 250 | Health, Nutrition and Safety . |

## Early Childhood Education: Special Education Paraprofessional Certificate

This six credit-hour certificate program will provide a paraprofessional in a special education facility with basic knowledge regarding characteristics of children with special needs, methods, and behavioral management techniques within the special education population.

## EARLY CHILDHOOD EDUCATION

| Required: |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| ECE | 120 | Introduction to Special Education for Paraprofessionals .......................... | 3 |
| ECE | 121 | Behavioral Management in Special Education Setting ......................... | 3 |

## Early Childhood Education: Teacher Certificate

This 39 credit-hour curriculum will qualify students for the Illinois ECE Credential Level 3 and the Infant/Toddler Credential-Level 3. Students will need to complete an IL Gateways application. This certificate program meets the minimal educational requirements established by the Illinois Department of Children and Family Services for an early childhood teacher who has also obtained one year of experience in a licensed center.

## Required Early Childhood Education Courses:

| ECE | 101 | Introduction to Early Childhood Education |
| :---: | :---: | :---: |
| ECE | 102 | Child Development |
| ECE | 111 | Infant/Toddler Programs |
| ECE | 115 | Principles of Early Childhood Curriculum ............................................ |
| ECE | 209 | Language Development and Activities for the Young Child .................... |
| ECE | 226 | Assessment and Guidance |
| ECE | 250 | Health, Nutrition and Safety |
| ECE | 252 | Child-Family-Community |
| ECE | 291 | Early Childhood Practicum I. |
| EDU | 219 | Students With Disabilities in School |
| General Education Courses: |  |  |
| ENG | 101 | Composition .................................................................................. |
|  |  |  |
| PSY | 101 | Introduction to Psychology ....................... |

1 Students in this program who utilize the competency test to meet the mathematics requirement (MTH 060 or higher) must complete SOC 101 in order to have the 39 hours required for this certificate.

## ELECTRONICS ENGINEERING TECHNOLOGY


#### Abstract

Associate in Applied Science A.A.S.: Electronics Engineering Technology Degree This 67 credit-hour program is designed to prepare students for careers in the field of electronics and other related technology industries. The curriculum satisfies general education requirements, and offers courses in mathematics, computer science and physics to cultivate student critical thinking skills. A broad range of electronics courses provides considerable emphasis on analysis and application, or applied technology. Specific electronics technology topics for this program include: electrical laws and principles, network analysis, semiconductor devices and circuits, digital and analog circuits, communications systems, and microprocessors and microcomputers. Additional courses in the industrial electronics area are also available.

Graduates of this program may find employment as technical sales specialists, applications engineers, engineering laboratory technicians, technical writers, manufacturing and quality control technicians, and customer service engineers.


| FIRST YEAR First Semester |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | Communications elective ${ }^{1}$ | 3 |
| ELT | 101 | DC Network Analysis | 4 |
| ELT | 110 | Introductory Electronics | 4 |
|  |  | Humanities or Social Science elective ${ }^{+}$. | 3 |
| MTH | 103 | College Algebra ... | 3 |
| Second Semester |  |  |  |
|  |  | Communications elective ${ }^{1}$. | 3 |
|  |  | CIS/CSC elective ${ }^{2}$ | 3 |
| ELT | 102 | AC Network Analysis . | 4 |
| ELT | 111 | Semiconductor Devices and Circuits | 2 |
| MTH | 140 | Precalculus | 5 |
| SECOND YEAR First Semester |  |  |  |
| ELT | 103 | RF Network Analysis | 4 |
| ELT | 203 | Digital Electronics ..... | 4 |
|  |  | Humanities or Social Science elective ${ }^{+}$ | 3 |
| PHY | 121 | Introductory Physics I. | 5 |
| Second Semester |  |  |  |
| ELT | 204 | Analog Electronics ........ | 4 |
| ELT | 207 | Communications Systems .............................................................. | 4 |
| ELT | 218 | Microprocessors and Microcomputers . | 4 |
| PHY | 122 | Introductory Physics II ${ }^{3}$... | 5 |

1 Communications electives must satisfy Associate in Applied Science degree Group 1 requirement.

+ At least one of the Humanities or Social Science requirements must also meet the World Cultures and Diversity graduation requirement. Humanities and Social Science electives must satisfy Associate in Applied Science degree Group 4 or 5 requirements.
2 CIS/CSC elective must be approved by the program coordinator.
3 Students may substitute any 5-6 hour combination of ELT 125, ELT 135, ELT 140, ELT 215 courses for PHY 122.


## Alternative Electrical Energy Certificate

This 24 credit-hour certificate program is designed to prepare students for careers in the emerging field of alternative electrical energy installation and service, and other related sustainable electrical power generation and distribution maintenance areas. The curriculum is tailored to provide entry-level career training in the least amount of time. Emphasis is placed on equipment operation, application, installation and servicing. Courses specific to instruction include: basic electricity and electronics, residential/commercial electrical wiring and codes, industrial control systems, and solar and wind power generation. Topics within these courses involve: practical electrical concepts and measurements, digital and analog circuits, hydraulic and pneumatic controls, AC/DC motors, variable frequency drives, industrial motor controls, optics and sensors, and programmable logic controllers.
Students completing this program may find employment as electrical technicians, electrician apprentices, electricians, and facilities or plant maintenance technicians in alternative electrical energy or related fields.
Students may also continue their education by pursuing an Associate in Applied Science degree. Students considering this option are encouraged to meet with the program coordinator and their Student Development Faculty Counselor prior to beginning the program and also when planning their schedule each semester.

## Required:

| ELT | 110 | Introductory Electronics | 4 |
| :---: | :---: | :---: | :---: |
| ELT | 135 | Optics and Sensors | 2 |
| ELT | 140 | Programmable Logic Controllers . | 2 |
| ELT | 142 | Electrical Wiring | 2 |
| ELT | 143 | Advanced Electrical Wiring | 2 |
| ELT | 144 | AC and DC Motors | 2 |
| ELT | 145 | Variable Frequency Drives | 2 |
| ELT | 150 | Solar Power Generation Systems | 2 |
| ELT | 151 | Wind Power Generation Systems | 2 |

## ELECTRONICS ENGINEERING TECHNOLOGY

## Electrical Maintenance Certificate

This 10 credit-hour certificate program is designed to prepare students for careers in the field of electrical installation and service, and other related facilities or industrial electronics maintenance areas. The curriculum is tailored to provide entry-level career training in the least amount of time. Emphasis is placed on equipment operation, application, installation and servicing. Courses specific to instruction include: basic electricity and electronics, residential/commercial electrical wiring and codes, and industrial control systems. Topics within these courses involve: practical electrical concepts and measurements, digital and analog circuits, hydraulic and pneumatic controls, AC/DC motors, optics and sensors, and programmable logic controllers.
Students completing this program may find employment as electrical technicians, electrician apprentices, electricians, and facilities or plant maintenance technicians.
Students may also continue their education by pursuing an Associate in Applied Science degree. Students considering this option are encouraged to meet with the program coordinator and their Student Development Faculty Counselor prior to beginning the program, and also when planning their schedule each semester.

## Required:



## Electronics Certificate

This 16 credit-hour certificate program is designed to prepare students for careers in the field of electronics and other related technology industries. The curriculum is very flexible as it allows students to choose from a number of electronics courses in many diverse technology areas and is tailored to provide entry-level career training in a relatively short time. A broad range of electronics courses provides considerable emphasis on analysis, operation, application, installation and servicing. Many courses do not require a prerequisite. However, for those courses that do, please consult with the program coordinator.
Students completing this program may find employment in various entry-level positions in technical sales, manufacturing and quality control, and customer service.

Students may also continue their education by pursuing an Associate in Applied Science degree. Students considering this option are encouraged to meet with the program coordinator and a Student Development Faculty Counselor prior to beginning the program and also when planning their schedule each semester.

## Electives: Select 16 credit hours from the following courses, provided the combination has program coordinator approval:



## Industrial Electronics Maintenance Certificate

This 16 credit-hour certificate program is designed to prepare students for careers in the field of industrial electronics and facilities maintenance, and other related technology maintenance areas. The curriculum is tailored to provide intermediate-level career training in the least amount of time. Emphasis is placed on equipment operation, application, installation and servicing. Courses specific to instruction include: basic electricity and electronics, residential/commercial electrical wiring and codes, and industrial control systems. Topics within these courses involve: practical electrical concepts and measurements, digital and analog circuits, hydraulic and pneumatic controls, AC/DC motors, electrical and electronic controls, variable frequency drives, optics and sensors, and programmable logic controllers.
Students completing this program may find employment as electrical technicians, electrician apprentices, electricians, and facilities or plant maintenance technicians.
Students may also continue their education by pursuing an Associate in Applied Science degree. Students considering this option are encouraged to meet with the program coordinator and their Student Development Faculty Counselor prior to beginning the program, and also when planning their schedule each semester.

Required:
ELT 110 Introductory Electronics 4

## ELECTRONICS ENGINEERING TECHNOLOGY

ELT 142 142 Electrical Wiring

$\qquad$ ..... 2
ELT 215 Industrial Control Systems ..... 4
Electives: Select six credit hours from the following:
ELT $120 \quad$ Introductory Industrial Electronics Maintenance2
ELT 135 Optics and Sensors ..... 2
ELT 140 Programmable Logic Controllers ..... 2
ELT 143 Advanced Electrical Wiring ..... 2
ELT 144 AC and DC Motors ..... 2
ELT 146 Industrial Motor Controls ..... 2

## Mechatronics Certificate

This 24 credit-hour certificate program is designed to prepare students for careers in the field of industrial electronics and facilities maintenance, and other related technology maintenance areas. The curriculum is tailored to provide advanced-level career training in the least amount of time. Emphasis is placed on equipment operation, application, installation and servicing. Courses specific to instruction include: basic electricity and electronics, residential/commercial electrical wiring and codes, and industrial control systems. Topics within these courses involve practical electrical concepts and measurements, digital and analog circuits, hydraulic and pneumatic controls, AC/DC motors, electrical and electronic controls, variable frequency drives, optics and sensors, and programmable logic controllers.

Students completing this program may find employment as electrical technicians, electricians, and facilities or plant maintenance technicians and supervisors.
Students may also continue their education by pursuing an Associate in Applied Science degree. Students considering this option are encouraged to meet with the program coordinator and their Student Development Faculty Counselor prior to beginning the program, and also when planning their schedule each semester.

## Required:

| ELT | 110 | Introductory Electronics ..................................................................... |
| :---: | :---: | :---: |
| ELT | 120 | Introductory Industrial Electronics Maintenance ................................... |
| ELT | 140 | Programmable Logic Controllers ....................................................... |
| ELT | 142 | Electrical Wiring .............................................................................. |
| ELT | 143 | Advanced Electrical Wiring .............................................................. |
| ELT | 215 | Industrial Control Systems ................................................................ |

## Electives: Select 8 credit hours from the following courses:

| ELT | 125 | Fiber Optics |
| :---: | :---: | :---: |
| ELT | 135 | Optics and Sensors |
| ELT | 144 | AC and DC Motors |
| ELT | 145 | Variable Frequency Drives |
| ELT | 146 | Industrial Motor Controls |
| ELT | 147 | Radio Frequency ID Systems |
| ELT | 161 | Industrial Control Applications |

## Radio Frequency ID (RFID) Electronics Certificate

This 16 credit-hour certificate program is designed to prepare students for careers in the field of radio frequency identification (RFID) systems and other related technology industries. A broad range of courses provides the student with a solid foundation in electronics, industrial controls and maintenance techniques, wireless communications systems and radio frequency identification systems. Contemporary RFID applications relevant to current industry needs such as material handling and transportation, electronic warehousing, inventory tracking and control, and potential homeland security applications are also examined. The curriculum is tailored to provide entry-level career training in a relatively short time. Emphasis is placed on system analysis, and equipment operation, application, installation and servicing while focusing on radio frequency and microwave technologies.

Students completing this program may find employment in various entry-level positions in technical sales, applications engineering, and customer or field service.

Students may also continue their education by pursuing as Associate in Applied Science degree. Students considering this option are encouraged to meet with the program coordinator and a Student Development Faculty Counselor prior to beginning the program and also when planning their schedule each semester.

## Required:

ELT 110

ELT 120
ELT 14
ELT 207
215ELT 207

Introductory Electronics 4
Introductory Industrial Electronics Maintenance2Communications Systems2
4

## EMERGENCY AND DISASTER MANAGEMENT

Associate in Applied Science A.A.S.: Emergency and Disaster Mgt DegreeThis 61-63 credit-hour program is intended to meet the needs of men and women in emergency management roles at the local, state andfederal levels in order to advance in the emergency management career field. Opportunities for graduates include Emergency ManagerSpecialist, Emergency Services Manager, Emergency Management Planner, Emergency Operations Director, Environmental CompliancePlanner, and Emergency Disaster Coordinator.
Required Core Courses:
A grade of $C$ or better in all EMG courses is required for all students.
EMG 101 Introduction to Emergency Management ..... 3
EMG 103 Leadership, Influence, Decision Making and Problem Solving ..... 3
EMG 107 Incident Management Systems ..... 3
Public Information, Education and Community Relations ..... 3
EMG 153 Hazard Analysis and Mitigation ..... 3
EMG 155 Social Dimensions of Disaster ..... 3
EMG 201 International Disaster Management ..... 3
EMG 253 deologies of Terrorism ..... 3 ..... 3
FIS 260 Emergency Services Safety ..... 3
Required General Education Courses:
ENG 101 Composition ..... 3
Humanities elective ${ }^{+}$ ..... 3
Mathematics elective ${ }^{1}$ ..... 3-4
Natural Science elective ..... 3-4
PSY 101 Introduction to Psychology ..... 3
SPE 101 Fundamentals of Speech Communication ............................................... 3
Electives: Select at least $\mathbf{1 2}$ credit hours from the following courses:


+ Students need to choose a course to meet this requirement that also fulfills the World Cultures and Diversity graduation requirement.
1 Students must take at least three credit hours in a mathematics course at the level of MTH 080 or above, or MGT 150.


## Public Safety Dispatcher Certificate

This 6 credit-hour certificate program is intended to meet the needs of men and women in public safety dispatching roles at the local, state and federal levels and to prepare others to enter the public safety dispatcher career field. This certificate program meets the requirements of the Illinois Law Enforcement Training and Standards Board (ILETSB) Public Safety Dispatcher minimum standards, Association of Police Communications Officers (APCO) Project 25 Public Safety Dispatcher minimum standards, and the National Fire Protection Association of NFPA 1061 Public Safety Dispatcher job requirements.

## Required:

A grade of C or better in all EMG courses is required for all students.
EMG $131 \quad$ Public Safety Dispatcher I .................................................................... 3
EMG 231 Public Safety Dispatcher II ..................................................................... 3

## EMERGENCY MEDICAL SERVICES

## Associate in Applied Science A.A.S.: Emergency Medical Services Degree

This 61 credit-hour program is a joint educational venture with Northwest Community Healthcare, the Emergency Medical Services (EMS) Department and Harper College. Emergency Medical Technician-Paramedic (EMT-P) program fulfills prescribed requirements by the Illinois Department of Public Health (IDPH) to practice the art and science of pre-hospital care under the direct supervision of a licensed physician or a registered professional nurse credentialed in emergency care. Where authorized, EMT-P function under the direction of an EMS medical director in an Illinois Department of Public Health approved Advanced Life Support (ALS) provider agency. EMT-P follows strict guidelines for procedures that can be performed and for those procedures that provide extensive pre-hospital care. Paramedics are accountable to medical directors, their peers, the health care team and the public.
Paramedics are professional providers whose goal is to prevent and reduce mortality and morbidity due to illness and injury. They are expected to assess and recognize medical, traumatic, emotional and psychological emergencies, as well as render basic life support care through advanced life support care in a wide variety of environmental conditions to people of all ages. They are responsible for transporting patients to medical facilities for further care and attention.
Working conditions vary. Paramedics work both indoors and outdoors. Openings occur for all working shifts including working on weekends and holidays. Many employers in this field require employees to be on call. Competition for jobs will be excellent in fire, police, or rescue squad departments, hospitals and private ambulance service due to attractive pay, benefits and job security. Many job openings occur due to replacement needs. Employment is projected to grow rapidly as paid emergency medical technician positions replace unpaid volunteers.
Admission Requirements:
Emergency Medical Services is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu
Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.
Upon admission to the Emergency Medical Services program, the mathematics requirement is met.

## Required Core Courses:



## Required General Education and Support Courses:


1 Electives: BIO 130, CHM 100, HSC 104, or HSC 213.

+ This course meets the World Cultures and Diversity graduation requirement.


## Emergency Medical Services: EMT Basic Certificate

The 7 credit-hour certificate program provides entry-level emergency medical care knowledge and skills associated with the delivery of Basic Life Support (BLS) as defined by the State of Illinois EMS Act and the EMS Rules. Meets all requirements of the Federal Department of Transportation EMT-B training curriculum and has been approved by the Illinois Department of Public Health (IDPH) Division of EMS and Highway Safety. This program is offered at Northwest Community Hospital.
Admission Requirements
EMT Basic is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925 .6700 or visit harpercollege.edu
Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

## Required:

A grade of $C$ or better in this course is required for this certificate

## EMERGENCY MEDICAL SERVICES

## Paramedic Certificate

The 29 credit-hour certificate program is to be offered in two semesters starting in August (fall semester) and concluding the following May (spring semester). The program is designed to expand the entry-level knowledge and skills initially acquired through Emergency Medical Technician-Basics (EMT-B) or Emergency Medical Technician-Intermediate (EMT-I) training. Paramedics reach that status through successful completion of either EMT-B or EMT-I training that includes classroom instruction, hospital-based, and field-based clinical experiences under the direct supervision of a preceptor. The Paramedic program exposes the students to a wide variety of emergency situations, including direct patient care in one of the involved EMS system hospitals and on emergency vehicles. Instructional content and design is based on the cognitive, psychomotor, and affective standard objectives specified in the U.S. Department of Transportation, 1998 National Emergency Medical Technician-Paramedic Curriculum. The Illinois Department of Public Health, Division of EMS and Highway Safety accredits the Paramedic program.
The Paramedic program course work including the internships are administered through Northwest Community Healthcare, Emergency Medical Services Department. Hospital internships are completed at eight area-wide hospitals while the field internship is completed at the Advanced Life Support (ALS) provider agency with which the student is either employed or has a participation agreement. After completion of the program, candidates are eligible to take the EMT-Paramedic licensure exam in the State of Illinois.

## Admission Requirements:

Paramedic is a limited enrollment program. For admissions requirements, please contact the Admissions Outreach Office at 847.925 .6700 or visit harpercollege.edu

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

## Required:

A grade of $C$ or better in all EMS courses (EMS 214 and EMS 215 with a grade of $P$ ) is required for all students.
EMS 210 Paramedic I - Preparatory ...................................................................... 6

EMS 211 Paramedic II - Medical Emergencies I ..................................................... 6
EMS 212 Paramedic II - Medical Emergencies II .................................................... 6
EMS 213 Paramedic III - Trauma Emergencies and Special Clients ....................... 3
EMS 214 Paramedic - Hospital Internship ............................................................... 2
EMS 215 Paramedic - Field Internship ...................................................................... 3
EMS 216 Paramedic Seminar ................................................................................ 3

## FASHION DESIGN

## Associate in Applied Science A.A.S.: Fashion Design Degree

This 61-67 credit-hour program is designed to provide students with entry-level skills in apparel textile design, flat pattern design, draping, fashion illustrating and professional design room practices. Facilities will simulate the professional atmosphere of the fashion industry.
All students enrolled in the program must complete required core coursework, and then select one of three areas of study to complete the degree: Fashion Design, Fashion Entrepreneurship or Fiber Entrepreneur.

## Required Core Courses:

| FAS | 100 | Industrial Sewing Methods ................................................................ |
| :---: | :---: | :---: |
| FAS | 113 | Advanced Industrial Sewing Methods ................................................. |
|  |  | Humanities electives ${ }^{1}$. |
|  |  | Social Science elective ${ }^{+}$. |

## Specialized Study Areas:

## FASHION DESIGN

## General Education Requirements:



Mathematics elective ${ }^{2}$................................................................................ 3
Required:
FAS 101 Flat Pattern Design and Draping I ........................................................... 3
FAS 102 Flat Pattern Design and Draping II ......................................................... 3
FAS 103 Apparel Design and Construction I ......................................................... 3
FAS 104 Apparel Design and Construction II .......................................................... 3
FAS 105 Fashion Design Illustration I ................................................................... 3
FAS 107 Textiles I ...................................................................................................... 3
FAS 109 Fashion Arts and Design ........................................................................... 3
FAS 110 Costume History ${ }^{+}$.................................................................................... 3
FAS 112 Fashion Basics ....................................................................................... 3
FAS 201 Flat Pattern Design and Draping III ......................................................... 3
FAS 203 Advanced Diversified Apparel Design I .................................................. 3
FAS 204 Advanced Diversified Apparel Design II ................................................... 4
FAS 208 Computer-Aided Patternmaking ................................................................ 3
FAS 210 Fashion Design Illustration II .................................................................. 3

## FASHION ENTREPRENEURSHIP

General Education Requirements:

ENG 130 Business Writing ..... 3
MGT 150 Business Math ..... 3
SPE 101 Fundamentals of Speech Communication ..... 3
Required:
FAS $101 \quad$ Flat Pattern Design and Draping I ..... 3
FAS 102 Flat Pattern Design and Draping II ..... 3
FAS 103 Apparel Design and Construction I ..... 3
FAS 104 Apparel Design and Construction II ..... 3
FAS 105 Fashion Design Illustration I ..... 3
FAS 107 Textiles I ..... 3
FAS $\quad 110 \quad$ Costume History ${ }^{+}$ ..... 3
FAS 112 Fashion Basics ..... 3
FAS $125 \quad$ Product Development I ..... 3
FAS 201 Flat Pattern Design and Draping III ..... 3
FAS 208 Computer-Aided Patternmaking ..... 3
FAS 250 Professional Studio Practices I ..... 3
FAS 260 Professional Studio Practices II ..... 3
FAS 265 Creative Enterprise ..... 4
FIBER ENTREPRENEUR
General Education Requirements:
ART 121 Design I ..... 3
ENG 130 Business Writing ..... 3
MGT 150 Business Math ..... 3
SPE 101 Fundamentals of Speech Communication ..... 3
Required:
FAS 107 Textiles I

## FASHION DESIGN

FAS 108
Textiles II ..... 3

FAS 117 ..... 117
Textiles Studio ..... 2
FAS 118 Textiles Studio II ..... 2
FAS 125 Product Development I ..... 3
FAS 135 Product Development II ..... 3
FAS 240 Fashion Projects ..... 3
FAS 245 Topics in Fashion Design ..... 1-3
FAS 250 Professional Studio Practices I ..... 3
Professional Studio Practices II ..... 3
FAS 265 Creative Enterprise ..... 4
GRA 130 Introduction to Photography ..... 2

1 ART 105 is recommended. At least one of the Humanities or Social Science electives must meet the World Cultures and Diversity graduation requirement in the Fiber Entrepreneur area of study.

+ At least one of the Humanities or Social Science electives must meet the World Cultures and Diversity graduation requirement in the Fiber Entrepreneur area of study. FAS 110 meets the World Cultures and Diversity graduation requirement in the Fashion Design and Fashion Entrepreneurship areas of study
2 A competency test, available in the Assessment and Testing Center, may be utilized to meet the mathematics elective requirement. Students in this program who utilize the competency test to meet the mathematics requirement must complete MKT 106.


## Advanced Patternmaking Certificate

This 31 credit-hour certificate program is designed to provide students with advanced skills in patternmaking and design. Students create complex designs such as jackets, coats and evening wear. Facilities simulate the professional atmosphere of the fashion industry.

## Required:

FAS 100 Industrial Sewing Methods ...................................................................... 3
FAS $101 \quad$ Flat Pattern Design and Draping I ........................................................... 3
FAS 102 Flat Pattern Design and Draping II ...........................................................
FAS 103 Apparel Design and Construction I .......................................................... 3
FAS 104 Apparel Design and Construction II .......................................................... 3
FAS 113 Advanced Industrial Sewing Methods ....................................................... 3
FAS 201 Flat Pattern Design and Draping III ..........................................................
FAS 203 Advanced Diversified Apparel Design I .................................................... 3
FAS 204 Advanced Diversified Apparel Design II ................................................... 4
FAS 208 Computer-Aided Patternmaking ............................................................... 3

## Apparel Construction Certificate

This 18-hour certificate program is designed for those students interested in patternmaking and design. The following courses provide entryskills in sewing, flat pattern design and draping. Facilities simulate the professional atmosphere of the fashion industry.

## Required:

FAS 100 Industrial Sewing Methods ........................................................................ 3
FAS 101 Flat Pattern Design and Draping I .......................................................... 3
FAS 102 Flat Pattern Design and Draping II ........................................................... 3
FAS 103 Apparel Design and Construction I ......................................................... 3
FAS 104 Apparel Design and Construction II ........................................................... 3
FAS 113 Advanced Industrial Sewing Methods ...................................................... 3

## Textiles Certificate

This 10 credit-hour certificate is designed to provide students with an introduction to various textile techniques and proficiency in techniques of choice. The study of textiles includes the technical structure of fabrics and methods of fabrication as well as surface design which covers a range of techniques for altering or embellishing such as embroidery, printing, dyeing, applique, etc. This program offers the fiber artist opportunity to explore the technical processes with the artistic development of textiles.

## Required:

| FAS | 107 | Textiles I |
| :---: | :---: | :---: |
| FAS | 108 | Textiles II |
| FAS | 117 | Textiles Studio I. |
| FAS | 118 | Textiles Studio II ............................................................................ |

## FASHION MERCHANDISING

## Associate in Applied Science A.A.S.: Fashion Merchandising Degree

This 63 credit-hour curriculum provides all the phases of fashion merchandising, not only in business aspects, but also in aesthetic and creative sides of fashion, such as window display, fashion basics and textile. Students will study fashion history and trends as well as their influence on our lives. In addition, they will survey the development of style leading up to contemporary design. Students will also take courses in English composition, computer information systems, sociology and introductory psychology.
An educational background in fashion merchandising opens the door to various careers, such as fashion coordinating, fashion promoting, fashion advertising, fashion displaying, fashion copywriting, fashion photographing, fashion buying and store managing.

## FIRST YEAR First Semester

| ENG | 101 | Composition .................................................................................. |
| :---: | :---: | :---: |
| FAS | 110 |  |
| FAS | 112 | Fashion Basics |
| MGT | 111 | Introduction to Business Organization ................................................. |
| MGT | 150 | Business Math .. |

## Second Semester

| ART | 105 | Introduction to Arts ................................................................................. |
| :--- | :--- | :--- |
| CIS | 100 | Computer Fundamentals or |

CIS 101 Introduction to Computer Information Systems ..... 3
ENG 102 Composition ..... 3
FAS 107 Textiles I ..... 3
FAS 111 Twentieth Century Costume and Trends ..... 3
MKT 106 Retail Merchandising ..... 3
SECOND YEAR First Semester
FAS 212 Visual Fashion Merchandising ..... 3
FAS 230 Fashion Forecasting ..... 3
MKT $140 \quad$ Principles of Professional Selling ..... 3
PSY 101 Introduction to Psychology ..... 3
SPE 101 Fundamentals of Speech Communication ..... 3
Second Semester
FAS 100 Industrial Sewing Methods ..................................................................... 3 ..... 3
FAS 116 Fashion Industries Career Practicum and Seminar ..... 3
FAS 229 Promotion of Fashion ..... 3
MKT 245 Principles of Marketing
SOC 101 Introduction to Sociology ${ }^{+}$ ..... 3

+ This course meets the World Cultures and Diversity graduation requirement.


## FINANCIAL MANAGEMENT

## Financial Management Certificate

This 22 credit-hour certificate program is designed for those currently employed in or seeking employment in finance departments, banks, investment companies or other finance-related enterprises. The curriculum emphasizes developing the competencies necessary for supervisory and public contact positions in the finance field.

The Associate in Applied Science in Business Administration includes a specialized study area for Financial Management. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Required:

| ACC | 101 | Introduction to Financial Accounting |
| :---: | :---: | :---: |
| FIN | 101 | Financial Institution Operations |
| FIN | 200 | Investment Management or |
| MGT | 170 | Principles of Individual Financial Planning ........................................... |
| FIN | 215 | Financial Statements Interpretation and Analysis ................................. |
| FIN | 225 | International Finance ........................................................................ |
| MGT | 111 | Introduction to Business Organization ................................................ |
| MGT | 218 | Introduction to Finance ..................................................................... |

## FIRE SCIENCE TECHNOLOGY

Associate in Applied Science A.A.S.: Fire Science Technology Degree
This 60-62 credit-hour program is applicable to both current firefighters and fire officers, as well as those wishing to enter the fire service. Some fire departments require a two-year degree in fire science before the student is eligible for entry-level positions, while other departments offer promotional and salary incentives to associate degree program graduates.
Many of the courses offered are articulated with the Office of the Illinois State Fire Marshal and count toward requirements for Instructor I, Instructor II, Fire Officer I, Fire Officer II, Fire Apparatus Engineer, Hazardous Materials First Responder and Technician. Other areas of employment for fire science graduates include fire equipment sales and service, municipal fire protection, fire prevention and inspection in industry and private insurance companies, and emergency medical services.
Students wishing to pursue a career in fire science should discuss these opportunities with the program coordinator or a Student Development Faculty Counselor member before entering the program.

## Required General Education Courses:

ENG 101 Composition ......................................................................................... 3
Humanities elective ${ }^{+}$.............................................................................. 3
Mathematics elective ${ }^{1}$......................................................................... 3-4
Natural Science elective ..................................................................... 3-4
PSY 101 Introduction to Psychology ..................................................................... 3
SPE 101 Fundamentals of Speech Communication .............................................. 3

## Required Core Courses:

FIS 100 Fundamentals of Fire Protection ............................................................ 3
FIS 102 Fire Service Management/Administration I .............................................. 3
FIS 103 Firefighting Strategies and Tactics I ........................................................ 3
FIS $104 \quad$ Building Construction for Fire Protection ................................................ 3
FIS 121 Fire Behavior and Combustion .............................................................. 3
FIS 122 Introduction to Fire Prevention Principles ............................................... 3
FIS 132 Hazardous Materials I .............................................................................. 3
FIS 145 Fire and Emergency Services Instructor I .............................................. 3
FIS 260 Emergency Services Safety ................................................................... 3
Electives: Select at least 15 credit hours from the following courses:
EMG 101 Introduction to Emergency Management ................................................. 3
EMG 107 Incident Management Systems ............................................................... 3
EMG 253 Ideologies of Terrorism .......................................................................... 3
FIS 106 Fire Service Career Explor Practicum .................................................... 1
FIS $109 \quad$ Basic Firefighter Certification ................................................................. 12
FIS 123 Advanced Fire Prevention Principles ...................................................... 3
FIS 133 Hazardous Materials II .......................................................................... 3
FIS 200 Fire Service Internship ........................................................................... 3
FIS 202 Fire Service Management/Administration II ............................................ 3
FIS 203 Fire Strategies and Tactics II ................................................................. 3
FIS 210 Basic Fire-Arson Investigation ................................................................ 3
FIS 211 Advanced Fire-Arson Investigation .......................................................... 3
FIS 212 Fire Protection Systems .......................................................................... 3
FIS 220 Fire and Emergency Services Instructor II ............................................. 3
FIS 230 Fire and Emergency Services Law ......................................................... 3
FIS 240 Fire Apparatus Engineer ........................................................................ 3
FIS 250 Industrial Fire Protection ........................................................................ 3
FIS 270 Fire Service Technical Rescue .............................................................. 3
FIS 280 Firefighting Around the World ............................................................................. 3

[^19]1 Students must take MTH 080 or above, or MGT 150 or MGT 225.

## GRAPHIC ARTS TECHNOLOGY

## Associate in Applied Science A.A.S.: Graphic Arts Technology Degree

This 62-64 credit-hour program is designed to prepare students for a wide range of employment opportunities in the graphic arts industry. This degree provides a well-rounded foundation of knowledge and skills to prepare students for new jobs as well as provide career advancement opportunities.
The curriculum includes current computer software instruction and creative and print production techniques. Emphasis is on graphic and web design, digital prepress and packaging/print production for the creative and manufacturing aspects of the industry. All students in the program complete a required sequence of classes and then select one of four specialties to complete the coursework: Graphic Design, Package Design, Print Production or Web Design.

## FIRST YEAR First Semester

ART 121 Design ..... 3
ENG 101 Composition ..... 3
GRA 101 Introduction to Graphic Arts Technology ..... 3
GRA 102 Graphic Arts Desktop Publishing ..... 3
GRA 103 Digital Imaging I ..... 3
Second Semester
ENG 102 Composition ..... 3
GRA 105 Color Management ..... 3
GRA 112 Digital Illustration I ..... 3
GRA 130 Introduction to Photography ..... 2
Mathematics elective ${ }^{1}$ ..... 3
Social Science elective ${ }^{2,+}$ ..... 3
SECOND YEAR First Semester
GRA 111 Press Operations ..... 3
GRA $120 \quad$ Graphic Design I ..... 3
GRA 229 Page Layout.. ..... 3
umantities or Social Science elective ${ }^{3,}$3
Second Semester: Choose one of the following specialized study areas:GRAPHIC DESIGN
GRA 113 Digital Imaging II ..... 3
GRA 131 Digital Photography I ..... 3
GRA $220 \quad$ Graphic Design II ..... 3
GRA 221 Graphic Portfolio Design ..... 2
GRA elective ${ }^{4}$ ..... 3
MKT 245 Principles of Marketing ..... 3
PACKAGE DESIGN
GRA 213 Packaging, Finishing and Distribution ..... 3
GRA 214 Digital Illustration II ..... 3
GRA 220 Graphic Design II ..... 3
GRA 221 Graphic Portfolio Design ..... 2
GRA 222 Package Design ..... 3
GRA 230 Prepress Production ..... 3
PRINT PRODUCTION
GRA 202 Advanced Color Management ..... 3
GRA 211 Project Management, Scheduling and Estimating ..... 3
GRA 213 Packaging, Finishing and Distribution ..... 3
GRA 230 Prepress Production ..... 3
GRA 231 Variable Data Technologies ..... 3
WEB DESIGN
GRA $220 \quad$ Graphic Design II ..... 3
GRA 221 Graphic Portfolio Design ..... 2
GRA $231 \quad$ Variable Data Technologies ..... 3
WEB 170 Web Graphics ..... 3
WEB 180 Web Multimedia ..... 3
WEB 190 Web Authoring Tools ..... 3

[^20]
## GRAPHIC ARTS TECHNOLOGY

$3,+\quad$ One three credit-hour course from the Humanities or Social Sciences electives for the AAS degree is required. At least one of the Humanities or Social
Science requirements must also meet the World Cultures and Diversity graduation requirement.
4 Graphic Arts electives: GRA 113, GRA 131, GRA 202, GRA 211, GRA 213, GRA 214, GRA 220, GRA 221, GRA 222, GRA 230, GRA 231, GRA 232

## Fashion Graphic Arts Certificate

This 21 credit-hour certificate program is designed to prepare students for direct employment in the graphic arts/fashion industry with a fashion illustration specialty. These graphic arts and fashion courses are designed to provide students with basic knowledge of the graphic arts industry for print as well as the illustration needs of the fashion industry. This program covers the latest computer software, illustration and production techniques.

## Required:

| FAS | 105 | Fashion Design Illustration |
| :---: | :---: | :---: |
| FAS | 210 | Fashion Design Illustration II |
| GRA | 101 | Introduction to Graphic Arts Technology |
| GRA | 102 | Graphic Arts Desktop Publishing |
| GRA | 103 | Digital Imaging I . |
| GRA | 112 | Digital Illustration I |
| GRA | 120 | Graphic Design I . |

## Graphic Arts Certificate

This 27 credit-hour certificate program is designed to prepare students for direct employment in the printing industry. These technical courses are designed to provide students with basic knowledge of the graphic arts industry. This program covers the latest computer software and production techniques.

## Required:

| GRA | 101 | Introduction to Graphic Arts Technology | 3 |
| :---: | :---: | :---: | :---: |
| GRA | 102 | Graphic Arts Desktop Publishing | 3 |
| GRA | 103 | Digital Imaging I. | 3 |
| GRA | 111 | Press Operations | 3 |
| GRA | 112 | Digital Illustration I | 3 |
| GRA | 211 | Project Management, Scheduling and Estimating | 3 |
| GRA | 213 | Packaging, Finishing and Distribution | 3 |
| GRA | 229 | Page Layout .. | 3 |
| WEB | 150 | Web Development I .................... | 3 |

## Graphic Arts Design Certificate

This 34 credit-hour certificate program is designed to provide students with the skills to gain creative understanding and design materials for print production. This program covers type and graphic design, page layout, computer graphics, and the production needs of good design.

## Required:

| ART | 121 | Design I | 3 |
| :---: | :---: | :---: | :---: |
| GRA | 101 | Introduction to Graphic Arts Technology | 3 |
| GRA | 102 | Graphic Arts Desktop Publishing | 3 |
| GRA | 103 | Digital Imaging I | 3 |
| GRA | 105 | Color Management | 3 |
| GRA | 112 | Digital Illustration I | 3 |
| GRA | 120 | Graphic Design I | 3 |
| GRA | 130 | Introduction to Photography | 2 |
| GRA | 131 | Digital Photography I | 3 |
| GRA | 220 | Graphic Design II | 3 |
| GRA | 221 | Graphic Portfolio Design | 2 |
| WEB | 150 | Web Development I . | 3 |

## Graphic Arts Desktop Publishing Certificate

This 30 credit-hour certificate program is designed for students interested in specializing in electronic prepress highlighting the latest software. This certificate will enhance a student's current employment position, as well as provide new employment opportunities.

## Required:



## GRAPHIC ARTS TECHNOLOGY

GRA 229 Page Layout ..... 3
GRA 230 Prepress Production ..... 3
WEB 150 Web Development I ..... 3

## Graphic Arts Digital Photography Certificate

This 23 credit-hour certificate program is designed for students interested in specializing in digital photography. This certificate will enhance a student's current employment position as well as provide new employment opportunities in the graphic arts industry.

## Required:

GRA 101 Introduction to Graphic Arts Technology .................................................. 3
GRA 103 Digital Imaging I ....................................................................................... 3
GRA 105 Color Management ................................................................................... 3
GRA 113 Digital Imaging II ..................................................................................... 3
GRA 130 Introduction to Photography ...................................................................... 2
GRA 131 Digital Photography I .............................................................................. 3
GRA 202 Advanced Color Management .................................................................. 3
GRA 232 Digital Photography II ............................................................................... 3

## Graphic Arts Interactive Technology Certificate

This 30 credit-hour certificate program is designed to provide students with a foundation in skills encompassing visual design and scripting to develop websites, rich internet applications (RIAs) and interactive multimedia. Individuals seeking entry-level positions in the field of graphic design, web design and interactive multimedia design will find these skills helpful.

## Required:

| GRA | 101 | Introduction to Graphic Arts Technology ............................................. |
| :---: | :---: | :---: |
| GRA | 102 | Graphic Arts Desktop Publishing |
| GRA | 103 | Digital Imaging I |
| GRA | 120 | Graphic Design I . |
| WEB | 150 | Web Development I |
| WEB | 170 | Web Graphics |
| WEB | 180 | Web Multimedia |
| WEB | 185 | Motion Graphics and Effects |
| WEB | 220 | Flash Multimedia II . |
| WEB | 260 | Interactive Multimedia |

## Graphic Arts Package Design Certificate

This 30 credit-hour certificate program is designed to provide students with the skills to gain marketing, creative and a manufacturing understanding of packaging skills and design materials for the packaging industry. This program covers graphic design, computer graphics, packaging-specific software, marketing and finishing needs and the production skills of good package design to get a product to market.

## Required:

| GRA | 101 | Introduction to Graphic Arts Technology |
| :---: | :---: | :---: |
| GRA | 102 | Graphic Arts Desktop Publishing |
| GRA | 103 | Digital Imaging I . |
| GRA | 112 | Digital Illustration I |
| GRA | 120 | Graphic Design I |
| GRA | 213 | Packaging, Finishing and Distribution |
| GRA | 214 | Digital Illustration II |
| GRA | 220 | Graphic Design II |
| GRA | 222 | Package Design . |
| GRA | 230 | Prepress Production. |

## Graphic Arts Variable Data Certificate

This 30 credit-hour certificate program is designed to provide students with a foundation in skills to understand the graphic arts industries web-to-print solutions and the importance of personalization and customization in print promotions. This certificate will provide training in basic graphic technologies utilizing variable data applications and digital print production. It will instruct students on how to implement a successful web-to-print workflow as well as analysis of data, digital graphic files, and delivery of the variable printed piece.

## Required:

| CAS | 160 | Introduction to Business Software Packages ....................................... |
| :---: | :---: | :---: |
| CIS | 143 | Introduction to Database Systems |
| GRA | 101 | Introduction to Graphic Arts Technology ............................................. |
| GRA | 102 | Graphic Arts Desktop Publishing |
| GRA | 103 | Digital Imaging I . |

## GRAPHIC ARTS TECHNOLOGY

| GRA | 229 | Page Layout | 3 |
| :---: | :---: | :---: | :---: |
| GRA | 230 | Prepress Production | 3 |
| GRA | 231 | Variable Data Technologies | 3 |
| WEB | 150 | Web Development I | 3 |
| WEB | 200 | Web Development II | 3 |

## Graphic Arts Web Design Certificate


#### Abstract

This 30 credit-hour certificate program is designed to provide students with a foundation in skills to design materials for print and Web media. Individuals seeking graphic designer entry-level positions will find these skills helpful. The program introduces graphic design, page layout, print and web graphics, and the software for web and desktop publishing.


## Required:

| ART | 121 | Design I | 3 |
| :---: | :---: | :---: | :---: |
| GRA | 101 | Introduction to Graphic Arts Technology | 3 |
| GRA | 102 | Graphic Arts Desktop Publishing | 3 |
| GRA | 103 | Digital Imaging I . | 3 |
| GRA | 112 | Digital Illustration I | 3 |
| GRA | 120 | Graphic Design I . | 3 |
| WEB | 150 | Web Development I | 3 |
| WEB | 170 | Web Graphics . | 3 |
| WEB | 180 | Web Multimedia | 3 |
| WEB | 190 | Web Authoring Tools | 3 |

## HEALTH INFORMATION TECHNOLOGY


#### Abstract

Associate in Applied Science A.A.S.: Health Information Technology Degree This 62 credit-hour program prepares the graduate to enter a career which blends two rapidly expanding fields, healthcare and information technology. Health information technicians ensure the quality of medical records by verifying their completeness, accuracy, and proper entry into computer systems. They also use computer systems to analyze patient data for the purpose of improving patient care or controlling costs. Health information technicians (RHIT's) may specialize in coding diagnoses and procedures in patient records for reimbursement and research. Health information technicians work in hospitals, long-term care facilities, cancer registries, mental health facilities, managed care organizations, and physician offices or as consultants.

This program requires a 160-hour externship at an area hospital.


## FIRST YEAR First Semester

A grade of $C$ or better is required in all courses.

| BIO | 135 | Introduction to Human Anatomy and Physiology |
| :---: | :---: | :---: |
| CIS | 101 | Introduction to Computer Information Systems ...... |
| ENG | 101 | Composition |
| HSC | 104 | Health Care Technology and Informatics |
| HSC | 112 | Medical Terminology . |
|  |  | Mathematics elective ${ }^{1}$ |

## Second Semester

A grade of C or better is required in all courses.

| BIO | 136 | Introduction to Human Disease |
| :---: | :---: | :---: |
| CAS | 160 | Introduction to Business Software Packages |
| ENG | 102 | Composition or |
| ENG | 103 | Technical and Report Writing or |
| SPE | 101 | Fundamentals of Speech Communication ........................................... |
| HIT | 200 | Introduction to Health Information Systems ...... |
|  |  | Humanities or Social Science elective ${ }^{+}$ |

## SECOND YEAR First Semester

A grade of $C$ or better is required in all courses.

| CIS | 143 | Introduction to Database Sys | 3 |
| :---: | :---: | :---: | :---: |
| HIT | 197 | International Classification of Diseases (ICD) Coding² | 3 |
| HIT | 220 | Health Care Information Management | 3 |
| HIT | 225 | Electronic Health Records | 3 |
| HIT | 250 | Law for Health Information | 3 |

## Second Semester

A grade of C or better is required in all courses.

| CIS | 211 | IT Project Managment Design | 3 |
| :---: | :---: | :---: | :---: |
| HIT | 196 | Current Procedural Terminology (CPT) Coding ${ }^{2}$ | 3 |
| HIT | 215 | Health Care Reimbursement | 3 |
| HIT | 230 | Health Care Information Analysis | 3 |
| HIT | 240 | Health Information Technology Externship | 3 |

1 MTH 101, or MTH 103 or higher.

+ Students must choose a Humanities or Social Science course that fulfills the World Cultures and Diversity graduation requirement.
2 MOA 196 and MOA 197 will not be accepted for this degree.


## Health Information Technology Certificate

This 30 credit-hour certificate program prepares the graduate to enter a career which blends two rapidly expanding fields, healthcare and information technology. Health information technicians ensure the quality of medical records by verifying their completeness, accuracy, and proper entry into computer systems. They also use computer systems to analyze patient data for the purpose of improving patient care or controlling costs.
Health information technicians work in hospitals, long-term care facilities, cancer registries, mental health facilities, managed care organizations, physician offices and as consultants.
Students electing to earn a certificate in Health Information Technology are eligible to apply credits earned toward completion of the Associate in Applied Science degree.
Required:
A grade of C or better is required in all courses.
BIO 135 Introduction to Human Anatomy and Physiology ...................................... 4

BIO 136 Introduction to Human Disease .............................................................. 3
CAS 160 Introduction to Business Software Packages .......................................... 3
CIS 101 Introduction to Computer Information Systems ........................................ 3
ENG 101 Composition ............................................................................................ 3

## HEALTH INFORMATION TECHNOLOGY

| HIT | 200 | Introduction to Health Information Systems |
| :---: | :---: | :---: |
| HIT | 220 | Health Care Information Management |
| HIT | 225 | Electronic Health Records |
| HIT | 250 | Law for Health Information |
| HSC | 112 | Medical Terminology |

## HEATING, VENTILATION AND AIR CONDITIONING (HVAC)

Associate in Applied Science A.A.S.: Refrigeration and Air Conditioning Technology DegreeThe courses in this curriculum are theory design and service oriented. Theory courses deal with energy conversions. Service courses arestrongly related to a hands-on philosophy. Emphasis is placed upon operating, servicing and installing equipment.
Graduates from this 62 credit-hour program may be employed as engineering laboratory assistants, equipment salesmen, heating andrefrigeration service people, estimators and system designers.
FIRST YEAR First Semester

Second Semester
PHS 111 Introduction to Physical Science ..... 4
RAC 102 Refrigeration Systems ..... 4
RAC 104 Residential Comfort Systems ..... 3
RAC 108 Domestic Refrigeration Appliances ..... 4
SECOND YEAR First Semester
Communications elective ${ }^{2}$ ..... 3
ELT $145 \quad$ Variable Frequency Drives ..... 2
RAC 106 Advanced Controls ..... 4
RAC 201 Refrigeration System Design I ..... 4
RAC 203 Air Conditioning Principles ..... 3
Second Semester
ELT 215 Industrial Control Systems or
RAC 202 Refrigeration System Design II ..... 3 ..... 4
Humanities elective ${ }^{+}$ ..... 3
RAC 204 Air Distribution ..... 3
Social Science elective ${ }^{+}$ ..... 3
1 Students may take MTH 097, MTH 101, MTH 103 or higher.2 One of the Communications electives must be ENG 101 or ENG 130. The second communications elective must be chosen from one of the following: ENG100, ENG 102, ENG 103 or SPE 101. Students are encouraged to meet with a Student Development faculty counselor for advice in the selection of courses

## Domestic Refrigeration and Heating Certificate

This 16 credit-hour certificate program provides the necessary training for installation, maintenance and repair of domestic refrigeration and heating systems. Special attention is given to home heating devices and to domestic refrigeration appliances.

## Required:

| RAC | 101 | Refrigeration Fundamentals |
| :---: | :---: | :---: |
| RAC | 103 | Heating Principles ............................................................................ |
| RAC | 105 | Heating and Cooling Controls |
| RAC | 108 | Domestic Refrigeration Appliances ..................................................... |

## Heating Service Certificate

This 15 credit-hour certificate program allows individuals to concentrate solely on heating systems. In addition to fundamental principles, the students will study basic and advanced heating and cooling controls.

## Required:

| MTH | 097 | Basic Technical Mathematics ${ }^{1}$ | 3 |
| :---: | :---: | :---: | :---: |
| RAC | 103 | Heating Principles | 4 |
| RAC | 105 | Heating and Cooling Controls | 4 |
| RAC | 106 | Advanced Controls .. |  |

1 Students may take MTH 097, MTH 101, MTH 103, or higher.

## Refrigeration Service Certificate

This 16 credit-hour certificate program focuses solely on refrigeration. Students concentrate on mastering the fundamentals of installing, maintaining and repairing a variety of commercial refrigeration systems. Special consideration is given to the conservation, recovery and recycling of refrigerants including chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs).

## HEATING, VENTILATION AND AIR CONDITIONING (HVAC)

## Required:

| RAC | 101 | Refrigeration Fundamentals |
| :---: | :---: | :---: |
| RAC | 102 | Refrigeration Systems . |
| RAC | 105 | Heating and Cooling Controls. |
| RAC | 106 | Advanced Controls |

## Refrigeration/Air Conditioning Service Certificate

This 27 credit-hour certificate program provides a broad spectrum of the HVAC industry. Students train and learn to install, service and repair residential, industrial and commercial refrigeration systems.

## Required:

| ELT | 144 | AC and DC Motors | 2 |
| :---: | :---: | :---: | :---: |
| ELT | 145 | Variable Frequency Drives | 2 |
| RAC | 101 | Refrigeration Fundamentals | 4 |
| RAC | 102 | Refrigeration Systems | 4 |
| RAC | 103 | Heating Principles | 4 |
| RAC | 104 | Residential Comfort Systems | 3 |
| RAC | 105 | Heating and Cooling Controls | 4 |
| RAC | 106 | Advanced Controls | 4 |

## Residential Comfort Systems Certificate

This 19 credit-hour certificate program focuses on residential comfort. In addition to mastering the ins and outs of residential comfort systems, candidates for this certificate also learn refrigeration and advanced heating and cooling controls.

## Required:

| RAC | 101 | Refrigeration Fundamentals .............................................................. |
| :---: | :---: | :---: |
| RAC | 103 | Heating Principles |
| RAC | 104 | Residential Comfort Systems ............................................................ |
| RAC | 105 | Heating and Cooling Controls |
| RAC | 106 | Advanced Controls ... |

## HOSPITALITY MANAGEMENT

## Associate in Applied Science A.A.S.: Hospitality Management Degree

Emphasis is placed on the techniques and technology of the hospitality industry from a management point of view. Graduates of this 60-61 credit-hour curriculum will be qualified to assume positions as production supervisors, management trainees and small unit managers. Upon successful completion of approved hospitality management courses, students may be granted a Certificate of Completion and a Management Development Diploma from the Educational Foundation of the National Restaurant Association. Upon successful completion of approved hospitality management courses, students may be awarded a certificate from the Educational Institute of the American Hotel and Motel Association. Contact the Hospitality Management coordinator for details.
Students must choose a program of study in one of the specialized areas, Food Service Operations Management or Hotel Operations Management.

## Required General Education Courses:



## Specialized Study Areas: It is recommended that students pursue one of the specialized study areas and consult with the program coordinator. FOOD SERVICE OPERATIONS MANAGEMENT

Electives: Select at least 15 credit hours from the courses listed below:

| CIS | 100 | Computer Fundamentals .................................................................. 3 |
| :---: | :---: | :---: |
| FSM | 215 | Restaurant Layout and Equipment ................................................... 3 |
| FSM | 216 | Introduction to Wine, Spirits and Beverage Management ....................... 3 |
| FSM | 220 | Hospitality Promotions ..................................................................... 3 |
| FSM | 230 | Hospitality Law and Risk Management ............................................... 3 |
| FSM | 299 | Topics in Hospitality Management ................................................ 0.5-3 |

## HOTEL OPERATIONS MANAGEMENT

Electives: Select at least 15 credit hours from the courses listed below:

| CIS | 100 | Computer Fundamentals ................................................................. 3 |
| :---: | :---: | :---: |
| FSM | 120 | Front Office Operations ................................................................... 3 |
| FSM | 210 | Hospitality Facility Maintenance ........................................................ 3 |
| FSM | 220 | Hospitality Promotions ..................................................................... 3 |
| FSM | 230 | Hospitality Law and Risk Management ............................................... 3 |
| FSM | 299 | Topics in Hospitality Management ............................................... 0.5-3 |

+ Students must choose a Humanities course that meets the World Cultures and Diversity graduation requirement.
1 A competency test, available in the Assessment and Testing Center, may be utilized to meet the mathematics elective requirement. Students in this program who utilize the competency test to meet the mathematics requirement must complete a three credit-hour elective approved by the program coordinator.


## Bread and Pastry Arts Certificate

This is a 26 credit-hour certificate program planned to prepare students for entrance into the food service industry. Graduates may be able to secure positions as qualified bakers and bakers' helpers in institutional, retail and commercial bakeries.

## Required:

| FSM | 107 | Basic Quantity Bread and Pastry Arts ................................................ |
| :---: | :---: | :---: |
| FSM | 108 | Advanced Quantity Bread and Pastry Arts .......................................... |
| FSM | 114 | Food Standards and Sanitation ......................................................... |
| FSM | 115 | Menu Planning ............................................................................... |
| FSM | 172 | Classical Baking . |
| FSM | 173 | Cake Decoration ............................................................................. |

## HOSPITALITY MANAGEMENT

Electives: Select at least 9 credit hours from the following:

| FSM | 109 | Introduction to Food Prep/Production |
| :---: | :---: | :---: |
| FSM | 111 | Introduction to the Hospitality Industry |
| FSM | 113 | Dining Room Operations |
| FSM | 163 | Garde Manger |
| FSM | 211 | Purchasing and Storage |
| FSM | 212 | Hospitality Supervision |
| FSM | 214 | Hospitality Operations Analysis |
| FSM | 215 | Restaurant Layout and Equipment .................................................... |
| FSM | 216 | Introduction to Wine, Spirits and Beverage Management ....................... |
| FSM | 220 | Hospitality Promotions ..................................................................... |

## Culinary Arts Certificate

This is a 32 credit-hour certificate program planned to prepare students for entrance into the food service industry. Graduates may be able to secure positions as head cooks, assistant cooks, specialty cooks, or chef's assistants.

## Required:

| FSM | 107 | Basic Quantity Bread and Pastry Arts |
| :---: | :---: | :---: |
| FSM | 109 | Introduction to Food Prep/Production . |
| FSM | 110 | Advanced Quantity Culinary Arts |
| FSM | 113 | Dining Room Operations . |
| FSM | 114 | Food Standards and Sanitation |
| FSM | 115 | Menu Planning |
| FSM | 162 | Classical Cuisine |
| FSM | 163 | Garde Manger |

## Electives: Select at least $\mathbf{6}$ credit hours from the following:

| FSM | 111 | Introduction to the Hospitality Industry |
| :---: | :---: | :---: |
| FSM | 172 | Classical Baking |
| FSM | 173 | Cake Decoration |
| FSM | 211 | Purchasing and Storage |
| FSM | 212 | Hospitality Supervision |
| FSM | 214 | Hospitality Operations Analysis |
| FSM | 215 | Restaurant Layout and Equipment |
| FSM | 216 | Introduction to Wine, Spirits and Beverage Management . |
| FSM | 220 | Hospitality Promotions |

## Food Service Management Certificate

This is a 26 credit-hour certificate program designed for people wanting to upgrade their management skills enabling them to assume more responsible positions. Upon completion of this program, students may also be awarded a Management Development Diploma by the National Restaurant Association. Contact the Hospitality Management coordinator for details.

## Required:

| FSM | 111 | Introduction to the Hospitality Industry |
| :---: | :---: | :---: |
| FSM | 113 | Dining Room Operations |
| FSM | 114 | Food Standards and Sanitation |
| FSM | 115 | Menu Planning |
| FSM | 211 | Purchasing and Storage .................................................................. |
| FSM | 212 | Hospitality Supervision |
| FSM | 214 | Hospitality Operations Analysis |
| FSM | 215 | Restaurant Layout and Equipment |
| FSM | 230 | Hospitality Law and Risk Management ............................................... |

## Hotel Management Certificate

This 20 credit-hour certificate program is designed for people wanting to upgrade their management skills to assume more responsible positions. Upon completion of this program, students may be awarded a Rooms Division Management Certificate of Specialization from the Educational Institute of the American Hotel and Motel Association. Contact the Hospitality Management coordinator for details.

## Required:

| FSM | 120 | Front Office Operations ................................................................... |
| :---: | :---: | :---: |
| FSM | 210 | Hospitality Facility Maintenance |
| FSM | 212 | Hospitality Supervision .. |
| FSM | 220 | Hospitality Promotions |
| FSM | 230 | Hospitality Law and Risk Management ........... |

## HOSPITALITY MANAGEMENT

## Electives: Select at least five credit hours from the following:

| CIS | 100 | Computer Fundamentals |
| :---: | :---: | :---: |
| FSM | 111 | Introduction to the Hospitality Industry ............................................... |
| FSM | 113 | Dining Room Operations .................................................................. |
| FSM | 114 | Food Standards and Sanitation ........................................................ |
| FSM | 211 | Purchasing and Storage |
| FSM | 214 | Hospitality Operations Analysis . |
| FSM | 216 | Introduction to Wine, Spirits and Beverage Management ....................... |

## HUMAN SERVICES

## Associate in Applied Science A.A.S.: Human Services Degree

This 61-62 credit-hour program prepares students to work in a variety of therapeutic, recreational, and learning environments including residential and day programs, shelters for abused women or the homeless, programs for the developmentally disabled, mental health and crisis centers, geriatric centers, and hospice care. Courses in this program help students develop knowledge and skills in counseling and interviewing, leading and facilitating groups, and professional ethics.
FIRST YEAR First Semester
ENG 101 Composition ..... 3
HMS 101 Introduction to Human Services ..... 3
HMS 102 Helping Skills in Human Services ..... 3
PSY 101 Introduction to Psychology ..... 3
SOC 101 Introduction to Sociology ..... 3
Second Semester
HMS 112 Group Work in Human Services ..... 3
HMS 121 N- 121 Multiculturalism in Human Services ${ }^{+}$ ..... 3
PSY 230 Abnormal Psychology ..... 3
SPE Fundamentals of Speech Communication ..... 3Drugs in Our Culture3
SECOND YEAR First Semester
HMS 211 Crisis Intervention ..... 3
HMS 221 Introduction to Gerontology ..... 3
Humanities elective ..... 3
Mathematics elective ${ }^{1}$ ..... 3-4
PSY 228 Psychology of Human Development ..... 3
Second Semester
HMS 232 Law and Ethics in Human Services ......................................................... 3
HMS 241 Disabilities and Human Service ................................................................. 3
HMS 251 Family Issues and Interventions ............................................................. 3
HMS 290 Field Experience and Seminar3
4
SOC 215 Introduction to Social Psychology ..... 3

[^21]1 A competency test, available in the Assessment and Testing Center, may be utilized to meet the mathematics requirement. Students who utilize the competency test to meet the mathematics requirement must complete an additional three-hour approved elective course.

## INTERIOR DESIGN


#### Abstract

Associate in Applied Science A.A.S.: Interior Design Degree This 72 credit-hour program is designed for students interested in careers in the furnishing and design industry. The program offers creative, artistic and challenging career opportunities. Graduates are trained to work as kitchen and bath designers, retail designers/salespersons, interior design assistants, assistant buyers of home furnishings, manufacturers' representatives or Merchandise Mart showroom managers. Periodic field trips are required and will help students learn about current design trends. Students are encouraged to have computers at home although campus computer labs are available for student use. AutoCad and CAD Studio courses are required courses and several other courses are offered online. The Associate in Applied Science degree in Interior Design may be used to meet the interior design education requirement for registration of Interior Designers in the State of Illinois. The program is endorsed by the National Kitchen and Bath Association (NKBA). In addition, the curriculum provides an overview of topics tested by the National Council for Interior Design Qualification (NCIDQ) exam, which must be completed before interior designers may be registered by the State of Illinois. By completing all required courses in this program, the World Cultures and Diversity graduation requirement has been met for this AAS degree.


## FIRST YEAR First Semester

ART 121 Design I ................................................................................................. 3

IND 100 Theory and Fundamentals of Design ..................................................... 2
IND 101 Interior Design Studio I......................................................................... 3
IND 103 History of Furniture and Interior Architecture ........................................... 3
IND 106 Materials and Sources .......................................................................... 3
IND 110 Problem Solving and Design Communication ........................................ 2
Second Semester
ARC 116 Architectural CAD I ............................................................................... 3
ART 130 Ancient and Medieval Art or
ART $131 \quad$ Gothic Through Romantic Art or
ART 132 Modern and Contemporary Art .............................................................. 3
102 Interior Design Studio II ......................................................................... 3
IND 107 Interior Perspective and Rendering ....................................................... 3
IND 114 Codes for Interior Designers .................................................................. 2
IND 116 Interior Detail and Construction Drawing ................................................ 3
Summer Semester
ENG 101 Composition ${ }^{1}$......................................................................................... 3

SPE 101 Fundamentals of Speech Communication .............................................. 3
SECOND YEAR First Semester
IND 203 3-D Design Studio ................................................................................. 3

IND 206 Architectural Lighting .............................................................................. 3
IND 220 CAD Studio ........................................................................................... 3
IND 230 Kitchen Design Studio .......................................................................... 3
Second Semester
IND 207 Interior Design Internship ....................................................................... 3
IND 209 Contract Design Studio ..................................................................................................................... 3
IND 211 Professional Practices for Interior Design ............................................... 3
IND 233 Bathroom Design Studio ........................................................................ 2
IND 250 Portfolio Review ................................................................................... 1

## Summer Semester

Mathematics elective ${ }^{2}$............................................................................ 3
Social Science elective ......................................................................... 3
1 An assessment test, available in the Assessment and Testing Center, must be taken before registering for ENG 101.
2 A competency test, available in the Assessment and Testing Center, may be utilized to meet the mathematics requirement (MTH 060 or higher).

## Interior Design Technology Certificate

This 28-credit hour certificate program is designed to give students the opportunity to specialize in the technology area of interior design. Students pursuing the Interior Design AAS degree and working designers will benefit from the technical aspects of this curriculum as computer expertise is invaluable to the interior design industry in today's market.

## Required:

| ARC | 116 | Architectural CAD I |
| :---: | :---: | :---: |
| GRA | 103 | Digital Imaging I. |
| IND | 100 | Theory and Fundamentals of Design ................................................ |

## INTERIOR DESIGN



## Kitchen and Bath Specialty Certificate

This 29 credit-hour certificate program is designed to give students the opportunity to benchmark their progress through the interior design program. Upon completion, students will be qualified to become employed in the kitchen and bath design field.

## Required:

| IND | 100 | Theory and Fundamentals of Design ................................................. |
| :---: | :---: | :---: |
| IND | 101 | Interior Design Studio I |
| IND | 102 | Interior Design Studio II |
| IND | 106 | Materials and Sources |
| IND | 110 | Problem Solving and Design Communication ..................................... |
| IND | 114 | Codes for Interior Designers |
| IND | 116 | Interior Detail and Construction Drawing |
| IND | 207 | Interior Design Internship |
| IND | 230 | Kitchen Design Studio |
| IND | 232 | Kitchen and Bath CAD Studio |
| IND | 233 | Bathroom Design Studio ..... |

## Perspective and Rendering Certificate

This 15 credit-hour certificate program is designed to give students a benchmark while going through the Interior Design program. This certificate's intent is for those students who want to specialize in the perspective and rendering areas of design.

## Required:

| ART | 121 | Design I |
| :---: | :---: | :---: |
| IND | 100 | Theory and Fundamentals of Design |
| IND | 101 | Interior Design Studio I |
| IND | 107 | Interior Perspective and Rendering |
| IND | 110 | Problem Solving and Design Communication |
| IND | 217 | Advanced Sketching and Perspective Drawing |

## Sustainability Design Certificate

This 12 credit-hour certificate program is designed to give students the opportunity to earn credits which are applicable to the requirements for taking the interior design licensing exam in the State of Illinois. This certificate is intended for Harper Interior Design students as well as students in other private interior design programs in the Chicago area.

## Required:

| IND | 101 | Interior Design Studio |
| :---: | :---: | :---: |
| IND | 281 | Environmental Design Studio |
| IND | 283 | Introduction to Green Design |
| IND | 285 | Sustainable Lighting . |

## INTERNATIONAL BUSINESS

## International Business Certificate

This 19 credit-hour certificate program will prepare students beginning their business careers for entry-level positions in the international business field. For students who have completed their college degrees and/or who have previous business experience, this program will provide opportunities for re-assignment into the international field of their present companies or provide new employment opportunities.

The specific goal of this program is to provide students with sufficient competencies in international business to allow them to qualify for and succeed in positions with firms such as international freight forwarders, export and import management companies, insurance companies, manufacturers and financial institutions dealing with companies engaged in the business of international trade.
The Associate in Applied Science in Business Administration includes a specialized study area for International Business. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Required:

Students are reminded that not all courses are offered each semester. In determining course selection, the student should consult with a Student Development faculty member or program coordinator.


## Electives: Select three credit hours from the following:

Students must satisfy the prerequisites for each course selected.
Students are reminded that not all courses are offered each semester. In determining course selection, the student should consult with a Student Development faculty member or program coordinator.

BFC 225 International Finance ............................................................................. 3
MKT 191 Business in the European Union ............................................................ 3
MKT 193 Business in Asia ................................................................................... 3
MKT 196 Business in Latin America .................................................................... 3
MKT 252 Internet Marketing ................................................................................. 3
SCM 230 International Supply Chain Management ................................................ 3

## LAW ENFORCEMENT AND JUSTICE ADMINISTRATION


#### Abstract

Associate in Applied Science A.A.S.: Forensic Science Degree This 60-61 credit hour program will provide instruction to students in the proper techniques of identifying, collecting and packaging physical evidence associated with crime scenes and understanding the importance of proper evidence handling. The forensic science technician is responsible for processing evidence at crime scenes, identifying, collecting, and preserving physical evidence to support law enforcement activities. Graduates may be employed as forensic technicians, property and identification custodians, arson investigators and investigators for local law enforcement and fire services, federal agencies, local, regional and national crime labs, as well as in private industry such as insurance companies, etc.


## FIRST YEAR First Semester

A grade of C or better in all CHM, FIS, LEJ, and MTH courses is required for all students.


## Second Semester

A grade of C
or better in all CHM, FIS, LEJ, and MTH courses is required for all students.

## SECOND YEAR First Semester

A grade of C or better in all CHM, FIS, LEJ, and MTH courses is required for all students.

| ANT | 215 | Introduction to Forensic Anthropology |
| :---: | :---: | :---: |
| CIS | 100 | Computer Fundamentals |
| FIS | 132 | Hazardous Materials $1 .$. |
| FIS | 210 | Basic Fire-Arson Investigation ${ }^{2}$. |
| LEJ | 218 | Forensics III |

## Second Semester



1 Students must take at least three credit hours in a mathematics course at the level of MTH 080 or above.
2 Prerequisite of FIS 100 will be waived for Forensic Science students.

+ This course meets the World Cultures and Diversity graduation requirement.


## Associate in Applied Science A.A.S.: Law Enforcement and Justice Administration Degree

This 61-62 credit hour program is designed to serve the needs of individuals who are seeking a career in law enforcement and to meet the specific entry-level requirements to be a law enforcement officer in the State of Illinois.
This multi-disciplinary curriculum provides a general education as well as specialized training. Students who successfully complete the initial 30-31 credit hours of this program may continue on with the law enforcement career track (Year 2). Enrollment in second-year courses will require a grade of $C$ or better for LEJ courses.

## FIRST YEAR First Semester

ENG 101 Composition .......................................................................................... 3

LEJ 101 Introduction to Criminal Justice ................................................................. 3
LEJ 122 Principles of Policing ............................................................................ 3

Second Semester
LEJ 201 Criminal Law ........................................................................................... 3
LEJ 205 Juvenile Justice ........................................................................................ 3
PHI 101 Critical Thinking ........................................................................................ 3
SOC 205 Social Problems ......................................................................................... 3
SPE 101 Fundamentals of Speech Communication .............................................. 3
SECOND YEAR First Semester
LEJ 107 Vice and Drug Control ........................................................................... 3

## LAW ENFORCEMENT AND JUSTICE ADMINISTRATION

LEJ 135
Patrol Procedures ..... 4
LEJ 210210
CriminologyLEJ 2143

$$
214
$$

LEJ

$$
216
$$ ..... 216

Investigative Process ..... 3
Community Policing ..... 3
Second Semester
LEJ 111 Traffic Enforcement and Investigation ..... 3
LEJ 200
Leadership and Ethics for Law Enforcement ..... 3

LEJ 202
LEJ 202 Criminal Procedures ..... 3
Electives ${ }^{2}$ ..... 6

1 A competency test, available in the Assessment and Testing Center, may be utilized to meet the mathematics requirement (MTH 060). Students who utilize the competency test to meet the mathematics requirement must complete an additional three credit hour elective.

+ This course meets the World Cultures and Diversity graduation requirement.
2 Electives: EMG 107, LEJ 104, LEJ 116, LEJ 138, LEJ 230, LEJ 281, LEJ 299.


## Forensic Science Technician Certificate

This 14 credit-hour certificate program will provide advanced instruction to the person with select degrees or experience in public safety who wants specialized training. The program focuses on the proper techniques of identifying, collecting, and packaging physical evidence associated with crime scenes and understanding the importance of proper evidence handling. A forensic science technician is responsible for processing evidence at crime scenes, and identifying, collecting, and preserving physical evidence to support law enforcement activities.

## Required

A grade of $C$ or better in all LEJ courses is required for all students.

| LEJ | 116 | Forensics | 3 |
| :---: | :---: | :---: | :---: |
| LEJ | 217 | Forensics II | 4 |
| LEJ | 218 | Forensics III | 4 |
| LEJ | 295 | Forensics IV | 3 |

## MAINTENANCE TECHNOLOGY

Associate in Applied Science A.A.S.: Maintenance Technology DegreeThis 61 credit hour program prepares students for employment in the fast growing building maintenance service sector of urban society.Graduates may be employed directly in building maintenance as directors, managers or operators for industrial and commercial properties.Other graduates may find employment as assistants in residential properties managed through associations including assisted living housingfor the elderly.
FIRST YEAR First Semester3
ELT 142 Electrical Wiring ..... 2MNT $111 \quad$ Prints and SchematicsNNT 1152
MNT 115 Basic Carpentry ..... 2
MNT 125 Basic Plumbing ..... 2
MTH 097 Basic Technical Mathematics ${ }^{2}$ ..... 3
Second Semester
3
MNT 215 Commercial Carpentry ..... 2
MNT 225 Commercial Plumbing ..... 2
Natural Science or Social Science elective ${ }^{+}$ ..... 3
RAC 103 Heating Principles ..... 4
WLD 110 Welding I ..... 3
SECOND YEAR First Semester
ELT 143 Advanced Electrical Wiring ..... 2
Natural Science or Social Science elective ${ }^{+}$ ..... 3
RAC 101 Refrigeration Fundamentals ..... 4
Technical electives ${ }^{3}$ ..... 6
Second Semester
BCE 104 Basic Mechanical and Energy Conservation Codes33
MGT $160 \quad$ Principles of Supervision3
MNT 235 Maintenance Troubleshooting Skills ..... 3
Technical electives ${ }^{3}$ ..... 3

1 One of the Communications electives must be ENG 101 or ENG 130. The second communications elective must be chosen from one of the following: ENG 100, ENG 102, ENG 103 or SPE 101. Students are encouraged to meet with a Student Development faculty counselor for advice in the selection of courses.

2 Students may take MTH 097, MTH 101, MTH 103, or higher.

+ At least one of the Humanities or Social Science requirements must also meet the World Cultures and Diversity graduation requirement
3 Technical electives: ACC 100, ARC 210, ARC 232, ELT 120, ELT 140, ELT 144, ELT 145, FIS 122, MFT 105, MFT 120, MNT 228, MNT 255, MNT 281, RAC 104, WLD 210, WLD 211, WLD 212.


## Basic Maintenance Certificate

This 16 credit-hour certificate program provides the basic knowledge and skill for entry-level jobs in building and residential maintenance.

## Required:



## Electives: Select 8 credit hours from the following courses:

BCE 104 Basic Mechanical and Energy Conservation Codes ................................. 3
MFT 105 Machining Processes I ....................................................................................................... 4
MTH 097 Basic Technical Mathematics ${ }^{1}$................................................................... 3
RAC 103 Heating Principles ................................................................................. 4
WLD 110 Welding I ................................................................................................ 3
1 Students may take MTH 097, MTH 101, MTH 103, or higher.

Commercial Maintenance Certificate
This 32 credit-hour certificate program builds on the Basic Maintenance certificate to prepare students for more advanced maintenance jobs in commercial or industrial maintenance.

## Required:



## MAINTENANCE TECHNOLOGY

MNT 115 Basic Carpentry .............................................................................................................MNT 215 Commercial Carpentry .......................................................................... 2
MNT 225 Commercial Plumbing2MNT 228 Small Equipment Maintenance ............................................................ 2
MTH $097 \quad$ Basic Technical Mathematics ${ }^{1}$ ..... 32RAC 103 Heating Principles
WLD 110 Welding I ..... 34
Select 6 credits from the following:

| BCE | 104 | Basic Mechanical and Energy Conservation Codes |
| :---: | :---: | :---: |
| ELT | 120 | Introductory Industrial Electronics Maintenance |
| FIS | 122 | Introduction to Fire Prevention Principles |
| MFT | 105 | Machining Processes I |
| MFT | 120 | Machining Processes II |
| MNT | 235 | Maintenance Troubleshooting Skills |
| MNT | 255 | Belts/Bearings and Mechanical Drives |
| RAC | 101 | Refrigeration Fundamentals |
| WLD | 210 | Welding II |
| WLD | 211 | Welding III |
| WLD | 212 | Welding IV ........... |

1 Students may take MTH 097, MTH 101, MTH 103, or higher.

## Manufacturing Basic Certificate

This 15 credit-hour certificate program is designed to give students skills in welding and machining to prepare them for entry-level employment in manufacturing. The program of study will emphasize welding theory and extensive practice in major arc welding process including OAW, SMAW, GMAW, and GTAW. Students will learn the fundamentals of machine shop theory and the practical application to the maintenance and fabrication industry. Students will work from blueprints and will be able to fabricate and repair small parts used in a variety of industrial applications.

## Required:

| MFT | 105 | Machining Processes | 4 |
| :---: | :---: | :---: | :---: |
| MFT | 120 | Machining Processes II | 3 |
| MNT | 111 | Prints and Schematics | 2 |
| WLD | 110 | Welding I . | 3 |
| WLD | 210 | Welding II .. | 3 |

## Supervisory Maintenance Certificate

This 46 credit-hour certificate program builds on the Basic Maintenance and Commercial Maintenance certificates to prepare students for supervisory positions in commercial, industrial or residential maintenance.

## Required:

| BCE | 104 | Basic Mechanical and Energy Conservation Codes . |
| :---: | :---: | :---: |
| ELT | 142 | Electrical Wiring |
| ELT | 143 | Advanced Electrical Wiring |
| MGT | 160 | Principles of Supervision |
| MNT | 111 | Prints and Schematics |
| MNT | 115 | Basic Carpentry |
| MNT | 125 | Basic Plumbing |
| MNT | 215 | Commercial Carpentry |
| MNT | 225 | Commercial Plumbing |
| MNT | 228 | Small Equipment Maintenance |
| MNT | 235 | Maintenance Troubleshooting Skills |
| MTH | 097 | Basic Technical Mathematics ${ }^{1}$ |
| RAC | 101 | Refrigeration Fundamentals |
| RAC | 103 | Heating Principles |
| WLD | 110 | Welding I ..................................................................................... |

## Electives: Select 7 credit hours from the following courses:

ACC 100 Introductory Accounting ..... 3
ARC 210 Cost Estimating ..... 3
ARC $213 \quad$ Building Materials II ..... 4
ELT 120 Introductory Industrial Electronics Maintenance ..... 2
ELT $140 \quad$ Programmable Logic Controllers ..... 2
ELT 144 AC and DC Motors ..... 2
ELT 145 Variable Frequency Drives ..... 2

## MAINTENANCE TECHNOLOGY



1 Students may take MTH 097, MTH 101, MTH 103 or higher.

## MANAGEMENT

## Advanced Management Certificate

This 18 credit-hour certificate program continues the development of management skills learned in the General Management certificate. It is designed for those students who wish to further explore the specific qualifications and requirements necessary for mid- to upper level management positions.
The Associate in Applied Science in Business Administration includes a specialized study area for Management. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Required:

MGT 111 Introduction to Business Organization ..................................................... 3
MGT $160 \quad$ Principles of Supervision ........................................................................ 3
MGT 270 Principles of Management .................................................................... 3

## Electives: Select at least nine credit hours from the following courses:

| MGT | 150 | Business Math ................................................................................ 3 |
| :---: | :---: | :---: |
| MGT | 168 | OSHA Standards and Compliance Procedures .................................... 3 |
| MGT | 205 | Leadership Foundations |
| MGT | 206 | Leadership Skills |
| MGT | 207 | Leadership Trends |
| MGT | 218 | Introduction to Finance ................................................................... 3 |
| MGT | 225 | Applied General Statistics ................................................................ 4 |
| MGT | 230 | Topics in Business .................................................................... 0.5-3 |
| MGT | 274 | Operations Management ................................................................. 3 |
| MGT | 280 | Organizational Behavior ................................................................... 3 |
| MGT | 291 | Problems in Management and Supervision ........................................ 3 |

## General Management Certificate

This 12 credit-hour certificate program offers the student the opportunity to receive fundamental management skills for entry-level management positions.
The Associate in Applied Science in Business Administration includes a specialized study area for Management. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Required:

| MGT | 111 | Introduction to Business |
| :---: | :---: | :---: |
| MGT | 160 | Principles of Supervision |
| MGT | 270 | Principles of Management |
|  |  | Elective ${ }^{1}$. |

1 Electives: MGT 150, MGT 205, MGT 206, MGT 207, MGT 280, MGT 291.

## Human Resource Management Certificate

This 18 credit-hour certificate program is designed for those individuals interested in employment in the human resource field.
The Associate in Applied Science in Business Administration includes a specialized study area for Management. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.
Required:

| MGT | 111 | Introduction to Business Organization ................................................ |
| :---: | :---: | :---: |
| MGT | 265 | Human Resources Management .......... |

Electives: Select 12 credit hours from the following courses:
ACC 216 Employment Law .................................................................................... 3
MGT 204 Training and Development ..................................................................... 3
MGT 266 Wage Analysis and Administration .......................................................... 3
MGT Labor-Management Relations ................................................................. 2753
MGT 276 Collective Bargaining .............................................................................. 3
MGT 280 Organizational Behavior ........................................................................ 3

## Small Business Management Certificate

This 15 credit-hour certificate program is designed for those individuals who want to develop management skills to be used in small businesses.
The Associate in Applied Science in Business Administration includes a specialized study area for Management. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Required:

## MANAGEMENT

MGT 254 Small Business Formation ..................................................................... 3

## Electives: Select a minimum of nine credit hours from the following courses:

| ACC | 101 | oduction to Financial Accounting |
| :---: | :---: | :---: |
| FIN | 215 | Financial Statements Interpretation and Analysis |
| MGT | 211 | Internship in Small Business |
| MKT | 245 | Principles of Marketing |

## MANUFACTURING TECHNOLOGY

Associate in Applied Science A.A.S.: Advanced Manufacturing Technology Degree
This 60 credit-hour Advanced Manufacturing Technology degree is designed to prepare students for the modern manufacturing environment.This program will prepare students for employment with companies that have implemented team-oriented design, production, qualityand maintenance systems within the manufacturing environment. American manufacturers are increasingly using high-tech equipmentthat involves multiple integrated systems. It is critical that these companies be able to recruit and employ individuals who know how tooperate, troubleshoot and maintain this high-tech equipment. The program requires the student to select one of four specialized study areas:Mechatronics/Automation, Precision Machining, Metal Fabrication, or Supply Chain Management/Logistics.
Required Core Courses:
MFT 102 Introduction to Manufacturing and Safety ................................................ 4
MFT 104 Quality and Measurement ..... 2
MFT 108 Manufacturing Processes ..... 3
MFT 109 Introduction to Manufacturing Maintenance ..... 2
MFT 119 Manufacturing Internship ..... 2
MTH ..... 097
Basic Technical Mathematics ${ }^{1}$ ..... 3
Required General Education Courses:
Communications elective ${ }^{2}$ ..... 3
ENG 101 Composition ..... 3
Humanities elective ${ }^{+}$ ..... 3
Social Science electives ${ }^{+}$ ..... 6
Specialized Study Areas: Choose one of the specialized study areas: MECHATRONICS/AUTOMATION
Required Technical Courses:

| ELT | 110 | Introductory Electronics |
| :---: | :---: | :---: |
| ELT | 120 | Introductory Industrial Electronics Maintenance |
| ELT | 140 | Programmable Logic Controllers |
| ELT | 142 | Electrical Wiring . |
| ELT | 143 | Advanced Electrical Wiring |
| ELT | 215 | Industrial Control Systems . |
|  |  | ELT electives ${ }^{3}$...... |
|  |  | Technical electives ${ }^{4}$ |

PRECISION MACHINING
Required Technical Courses:
MFT 105 Machining Processes I ..... 4
MFT 120 Machining Processes II ..... 3
MFT 123 Introduction to CNC Machining ..... 3
MFT 125 CNC Lathe Operation and Programming ..... 3
MFT 128 CNC Mill Operation and Programming ..... 3
MFT 130 Machining Blueprints ..... 1
MFT 201 Advanced CNC5
MFT 265 Properties of Materials ..... 2
MNT 111 Prints and Schematics ..... 2
Technical electives ${ }^{4}$ ..... 3
METAL FABRICATION
Required Technical Courses:
MNT $111 \quad$ Prints and Schematics ..... 2
WLD $110 \quad$ Welding I ..... 3
WLD 210 Welding II ..... 3
WLD 211 Welding III ..... 4
WLD 212 Welding IV ..... 4
WLD 225 Advanced Blueprint Reading ..... 2
WLD 240 Cutting Processes ..... 3
WLD 245 Welding Fabrication I ..... 4
WLD 250 Welding Fabrication II ..... 4
SUPPLY CHAIN MANAGEMENT/LOGISTICS
Required Technical Courses:
SCM 101 Supply Chain Management ..... 3
SCM 120 Production Control Concepts ..... 3
SCM $121 \quad$ Principles of Physical Distribution ..... 3
SCM 122 Inventory Control ..... 3

## MANUFACTURING TECHNOLOGY

| SCM | 125 | Purchasing | 3 |
| :---: | :---: | :---: | :---: |
| SCM | 226 | Material Requirements Planning (MRP) | 3 |
| SCM | 227 | Just-in-Time (JIT) | 3 |
| SCM | 259 | Advanced Purchasing | 3 |
|  |  | Technical electives ${ }^{4}$ | 5 |

[^22]
## Computer Numerical Control (CNC) Operator I Certificate

This 18 credit-hour certificate program is designed to provide students with the skills necessary to gain entry-level employment in the manufacturing/precision machining industry. The certificate focuses on skills used in a modern machine shop-blueprint reading, conventional machine tool theory and lab, and an introduction to CNC operations.

## Required:

| MFT | 105 | Machining Processes I |
| :---: | :---: | :---: |
| MFT | 120 | Machining Processes II ..................................................................... |
| MFT | 123 | Introduction to CNC Machining .......................................................... |
| MFT | 125 | CNC Lathe Operation and Programming ............................................ |
| MNT | 111 | Prints and Schematics ..................................................................... |
| MTH | 097 | Basic Technical Mathematics ${ }^{1}$. |

1 Students may take MTH 097, MTH 101, MTH 103, or higher.

## Computer Numerical Control (CNC) Operator II Certificate

This 29 credit-hour certificate program is a continuation of the CNC Operator Control I certificate. It is designed to further develop CNC operation skills to prepare students to advance in their career in precision machining.

## Required:

MFT 105 Machining Processes I ............................................................................. 4
MFT 120 Machining Processes II ............................................................................ 3
MFT 123 Introduction to CNC Machining ................................................................. 3
MFT 125 CNC Lathe Operation and Programming ................................................ 3
MFT 128 CNC Mill Operation and Programming ..................................................... 3
MFT 130 Machining Blueprints ............................................................................... 1
MFT 201 Advanced CNC ....................................................................................... 5
MFT 265 Properties of Materials ........................................................................... 2
MNT 111 Prints and Schematics ............................................................................ 2

1 Students may take MTH 097, MTH 101, MTH 103, or higher.

## Manufacturing Production Certificate

This 16 credit-hour certificate program is designed to build the core competencies of manufacturing production to prepare students for internships and entry-level positions in manufacturing. The MFT coursework below prepares the student for an industry recognized certification assessment. Students who successfully pass all four assessments will be recognized as Certified Production Technicians by the Manufacturing Skill Standards Council (MSSC).

## Required:



[^23]
## MARKETING

## E-Commerce Business Certificate

This 15 credit-hour certificate program is designed to give individuals with little technical or business training the skills necessary to start and manage viable Web-based businesses or consult with others on e-commerce business start-ups. The principles learned in this program could also be applied to existing businesses wishing to expand by offering a Web-based alternative.
The Associate in Applied Science in Business Administration includes a specialized study area for Marketing. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Required:

| MGT | 154 | Small Business Management |
| :---: | :---: | :---: |
| MKT | 252 | Internet Marketing . |
| WEB | 240 | E-Commerce Development |

Electives: Select six credit hours from the following:

| CIS | 100 | Computer Fundamentals or |
| :---: | :---: | :---: |
| CIS | 101 | Introduction to Computer Information Systems |
| MKT | 245 | Principles of Marketing |
| MKT | 247 | Consumer Buying Behavior |
| MKT | 255 | Marketing Research |
| PLS | 222 | Intellectual Property |
| WEB | 150 | Web Development I. |

## Marketing Certificate

This 15 credit-hour certificate program is designed for those interested in obtaining basic marketing skills that can be used in entry-level marketing positions.
The Associate in Applied Science in Business Administration includes a specialized study area for Marketing. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Required:

MCM 233 Introduction to Public Relations .............................................................. 3

MKT 217 Advertising ............................................................................................. 3
MKT 245 Principles of Marketing ............................................................................. 3

## Electives: Select six credit hours from the following:

| MKT | 105 | Sports Marketing | 3 |
| :---: | :---: | :---: | :---: |
| MKT | 106 | Retail Merchandising | 3 |
| MKT | 120 | Customer Service | 1 |
| MKT | 140 | Principles of Professional Selling | 3 |
| MKT | 202 | Marketing for Non-Profit Organizations | 3 |
| MKT | 246 | Business to Business Marketing | 3 |
| MKT | 247 | Consumer Buying Behavior | 3 |
| MKT | 248 | Direct Marketing | 3 |
| MKT | 250 | Retailing | 3 |
| MKT | 252 | Internet Marketing | 3 |
| MKT | 255 | Marketing Research | 3 |
| MKT | 260 | International Marketing | 3 |
| MKT | 281 | Internship in Marketing | 3 |

## Marketing Research Certificate

This 6 credit-hour certificate program is designed to give individuals with little or no formal training the skills necessary to function as a market research analyst. The principles learned in these classes will help individuals efficiently target markets, design research instruments, and identify potential markets for new and existing products and services.

The Associate in Applied Science in Business Administration includes a specialized study area for Marketing. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Required:

GEG 151 Geographic Information Systems I ......................................................... 3
MKT 255 Marketing Research .............................................................................. 3

## Retail Merchandising Certificate

This is a 17-18 credit-hour certificate program designed for individuals with career interests in the retail management field. It is especially appropriate for those individuals employed in retailing who are seeking skills and knowledge which may prepare them for career advancement.

## MARKETING

The Associate in Applied Science in Business Administration includes a specialized study area for Marketing. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Required:

| FAS | 212 | Visual Fashion Merchandising or |
| :---: | :---: | :---: |
| MKT | 217 | Advertising |
| MKT | 106 | Retail Merchandising |
| MKT | 250 | Retailing .. |
| MKT | 251 | Retail Merchandise Management |

Electives: Select at least six credit hours from the following courses:

| ACC | 100 | Introductory Accounting or |  |
| :---: | :---: | :---: | :---: |
| ACC | 101 | Introduction to Financial Accounting | 4 |
| MGT | 111 | Introduction to Business Organization | 3 |
| MGT | 154 | Small Business Management | 3 |
| MGT | 160 | Principles of Supervision | 3 |
| MKT | 140 | Principles of Professional Selling | 3 |
| MKT | 245 | Principles of Marketing | 3 |

## Sales Management and Development Certificate

This 15 credit-hour certificate program is designed to provide in-service and pre-service training and development for industrial sales and sales management personnel representing manufacturers, service marketers, wholesalers or other marketing middlemen. Through the selection of courses, this program can satisfy both the career needs of individuals seeking to develop and expand their selling and account servicing skills and individuals preparing for sales management responsibilities. This certificate program would be especially appropriate for individuals who are entering the professional field without a formal sales or marketing education.
Program requirements are satisfied by completing six hours from Group 1 and nine hours from Group II for a total minimum of 15 credit hours. To achieve an individual program designed to complement the student's industrial and educational background, the selection of courses should be made in consultation with the coordinator.
The Associate in Applied Science in Business Administration includes a specialized study area for Marketing. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Electives: Group I (Select six credit hours from the following):


Electives: Group II (Select nine credit hours from the following):
ACC 211 Business Law I ...................................................................................... 3
MGT 111 Introduction to Business Organization ..................................................... 3
MGT 160 Principles of Supervision ........................................................................ 3
MKT 120 Customer Service ....................................................................................... 1
MKT 141 Sales Management ................................................................................. 3
MKT 240 Advanced Sales Strategies ...................................................................... 3
MKT 245 Principles of Marketing ........................................................................... 3
MKT 246 Business to Business Marketing .............................................................. 3
SCM 125 Purchasing ............................................................................................ 3

## MASS COMMUNICATION

Associate in Applied Science A.A.S.: Public Relations DegreeThis 60-credit hour program is designed for persons interested in preparing for positions in the growing and dynamic field of public relations.Additionally, the program may provide in-service training for people already working in the field. Students will learn valuable marketing,advertising and journalistic knowledge and skills, including writing for various media and communication vehicles, interviewing, special eventplanning and public relations campaign management.
FIRST YEAR First Semester
ENG 101 Composition ..... 3
Humanities elective ..... 3
MCM 120 Introduction to Mass Communication3
MCM 130 Introduction to Journalism ..... 3
MGT 150 Business Math ..... 3
Second Semester
MCM 131 News Reporting and Writing .................................................................... 3 ..... 3
MCM 233 Introduction to Public Relations ..... 3
MGT 111 Introduction to Business Organization
SOC 101 ntroduction to Sociology ${ }^{+}$ ..... 3
Social Science elective ..... 3
SECOND YEAR First Semester
Elective ${ }^{1}$ ..... 3
MCM 137 Media Writing ..... 3
MCM $250 \quad$ Public Relations Writing and Production ..... 3
MCM 251 Media Interviewing ..... 3
MKT 245 Principles of Marketing ..... 3
Second Semester
6
MCM $\quad 252$ Special Events and Promotions ..... 3
MCM 260 Campaign Communication and Message Design ..... 3
MKT 217 Advertising ..... 3

+ This course meets the World Cultures and Diversity graduation requirement.
1 Choose 9 credit hours from MGT 280, SPE 101, or any MCM or MKT course.


## Media Writing and Design Certificate

This is a 21 credit-hour certificate program designed for those students seeking to obtain skills in both media writing and design. The preparation is suitable for certain entry-level jobs in magazine and newsletter design, marketing, public relations and advertising as well as those interested in freelance careers. It is also appropriate for students changing careers who have a background in another field.

## Required:

MCM 120 Introduction to Mass Communication ...................................................... 3
MCM 130 Introduction to Journalism .......................................................................... 3
MCM 140 Writing, Editing, and Design for the Internet ............................................. 3


Elective: Select six credit hours from the following:

| ART | 121 | Design | 3 |
| :---: | :---: | :---: | :---: |
| MCM | 126 | Introduction to Broadcasting | 3 |
| MCM | 131 | News Reporting and Writing | 3 |
| MCM | 133 | Feature Writing | 3 |
| MCM | 136 | Broadcast Writing | 3 |
| MCM | 141 | Basic News Editing | 3 |
| MCM | 233 | Introduction to Public Relations | 3 |
| MCM | 235 | Magazine Editing and Design | 3 |
| MCM | 240 | Topics in Mass Communications | 1-6 |

1 This course is strongly recommended before taking MCM 233 or MCM 235.
2 Prerequisite of MKT 245 will be waived for Media Writing and Design students.

## Online Communications Certificate

This is an 18-19 credit-hour certificate program that provides a background in writing, editing, and design.
Required:
MCM 130 Introduction to Journalism .................................................................... 3
MCM 140 Writing, Editing, and Design for the Internet ............................................ 3

## MASS COMMUNICATION

3MCM 243 Communication Web Site Applications ..... 3
WEB 101 Internet Fundamentals ..... 1
Electives: Select one course from the following:

| MCM | 120 | Introduction to Mass Communication | 3 |
| :---: | :---: | :---: | :---: |
| MCM | 131 | News Reporting and Writing | 3 |
| MCM | 133 | Feature Writing | 3 |
| MCM | 233 | Introduction to Public Relations | 3 |
| MCM | 242 | Using the Internet as a Communications Tool | 2 |
| MKT | 217 | Advertising ${ }^{1}$ | 3 |
| WEB | 150 | Web Development I | 3 |

1 Prerequisite of MKT 245 will be waived for Online Communications students.

## Public Relations Certificate

This 21 credit-hour certificate program offers the student the opportunity to gain valuable knowledge and skill in mass communication with an emphasis on public relations.

## Required:

MCM 120 Introduction to Mass Communication ..................................................... 3

MCM 130 Introduction to Journalism .......................................................................... 3
MCM 233 Introduction to Public Relations ............................................................... 3
MCM 250 Public Relations Writing and Production .................................................... 3
MCM 251 Media Interviewing ................................................................................... 3
MCM 252 Special Events and Promotions .............................................................. 3
MCM 260 Campaign Communication and Message Design .................................... 3

## Public Relations for the Web Certificate

This 22 credit-hour certificate program combines skills in two growing and dynamic areas: public relations and internet communications.

## Required:

|  |  | Electives ${ }^{1}$ | 6 |
| :---: | :---: | :---: | :---: |
| MCM | 120 | Introduction to Mass Communication | 3 |
| MCM | 130 | Introduction to Journalism | 3 |
| MCM | 140 | Writing, Editing, and Design for the Internet | 3 |
| MCM | 233 | Introduction to Public Relations | 3 |
| WEB | 101 | Internet Fundamentals | 1 |
| WEB | 150 | Web Development I ....... | 3 |

[^24]
## MEDICAL OFFICE ADMINISTRATION



Electives: Group I (Select any combination of a minimum of six credit hours from the following courses:) A grade of C or better in all $\mathrm{BIO}, \mathrm{HSC}$ and MOA courses is required for all students.

| MOA | 196 | Current Procedural Terminology (CPT) Coding .................................... |
| :---: | :---: | :---: |
| MOA | 197 | International Classification of Disease (ICD) Coding ............................. |
| MOA | 215 | Clinical Procedures ${ }^{3}$ |
| MOA | 240 | Medical Transcription I. |
| MOA | 242 | Medical Transcription II |

## Electives: Group II (Select any combination of a minimum of six credit hours from the following courses:)

A grade of C or better in all $\mathrm{BIO}, \mathrm{HSC}$ and MOA courses is required for all students.

| ACC | 101 | Introduction to Financial Accounting ................................................... 4 |
| :---: | :---: | :---: |
| CIS | 101 | Introduction to Computer Information Systems ..................................... 3 |
| ECO | 200 | Introduction to Economics ................................................................. 3 |
| HSC | 106 | Health Occupations Career Observation ....................................... 0-1.5 |
| MGT | 205 | Leadership Foundations .................................................................. 1 |
| MGT | 206 | Leadership Skills ............................................................................ 1 |
| MGT | 207 | Leadership Trends ......................................................................... 1 |
| MGT | 265 | Human Resources Management ...................................................... 3 |
| PSY | 245 | Industrial/Organizational Psychology ${ }^{3}$................................................ 3 |

1 Students may take BIO 135 and BIO 136 or BIO 160 and BIO 161 or BIO 160 and BIO 136.

+ Students need to choose a course to meet this requirement that also meets the World Cultures and Diversity graduation requirement.
2 A competency test, available in the Assessment and Testing Center, may be utilized to meet the mathematics elective requirement (MTH 060 or higher).
3 Students must satisfy prerequisites for each course selected.


## Health Care Office Assistant Certificate

This 23 credit-hour certificate program is designed for the individual who is interested in working in a medical facility at the front desk. The certificate offers the skills necessary to work as an office assistant in a medical office or any other health care-related facility.

## MEDICAL OFFICE ADMINISTRATION

Administrative duties could include patient and visitor reception, appointment scheduling, appointment confirmation calls, maintaining files, insurance verification, insurance claims processing, billing and collections, health care records management, and other clerical front desk duties.
Students should have a keyboarding speed of at least 30 words per minute. The program may be taken full-time or part-time with courses offered during the day, in the evening, or (some) online. A 160-hour externship in a medical facility is offered during the spring semester only and is usually the student's last semester of the program. Students should attend a program information session and also arrange a planning session with the program coordinator when possible.
Please contact the program coordinator for current names(s) and pertinent information regarding the national professional organization(s) affiliated with the programs in the Medical Office Administration department.

## Required:

A grade of C or better in all $\mathrm{BIO}, \mathrm{HSC}$ and MOA courses is required for all students.

| ENG | 101 | Composition | 3 |
| :---: | :---: | :---: | :---: |
| HSC | 104 | Health Care Technology and Informatics | 0-2 |
| HSC | 105 | Introduction to Health Care Today | 0-2 |
| HSC | 112 | Medical Terminology | 0-2 |
| MOA | 145 | Health Care Records Management | 2 |
| MOA | 195 | Principles of Health Insurance Billing ${ }^{1}$ | 3 |
| MOA | 235 | Health Care Office Procedures | 3 |
| MOA | 240 | Medical Transcription I ${ }^{1}$ | 3 |
| MOA | 265 | Medical Office Administration Externship | 3 |

1 Prerequisite of BIO 135 and BIO 136 waived for Health Care Office Assistant students.

## Health Insurance Specialist Certificate

This concentrated 35 credit-hour certificate program is designed for the individual who is interested in becoming an insurance billing specialist in a large health care facility or a claims approver in an insurance company. The program provides a generalized orientation to the health care field, plus specific training in International Classification of Diseases (ICD) and Current Procedural Terminology (CPT) coding, billing reimbursement and collections procedures.
Some keyboarding skills and knowledge of computers is recommended.

## Professional Certification:

Students in the Health Insurance Specialist program are encouraged to join the local chapter of the American Association of Procedural Coders (AAPC) and the American Health Information Management Association (AHIMA). An experienced coder is eligible to sit for the national examination in order to become a Certified Procedural Coder (CPC). An entry-level coder is eligible to sit for the Certified Professional Coder Apprentice (CPC-A) Exam offered by AAPC or the Certified Billing and Coding Specialist (CBCS) certification exam offered by the National Health Career Association (NHA). Students should attend a program information session and also arrange a planning session with the program coordinator when possible.
Please contact the program coordinator for current names(s) and pertinent information regarding the national professional organization(s) affiliated with the programs in the Medical Office Administration department.

## Required:

A grade of C or better in all $\mathrm{BIO}, \mathrm{HSC}$ and MOA courses is required for all students.

| BIO | 135 | Introduction to Human Anatomy and Physiology | 4 |
| :---: | :---: | :---: | :---: |
| BIO | 136 | Introduction to Human Disease | 3 |
| ENG | 101 | Composition | 3 |
| HSC | 104 | Health Care Technology and Informatics | 0-2 |
| HSC | 105 | Introduction to Health Care Today | 0-2 |
| HSC | 112 | Medical Terminology | 0-2 |
| HSC | 213 | Legal and Ethical Issues in Health Care | 0-2 |
| MOA | 145 | Health Care Records Management | 2 |
| MOA | 195 | Principles of Health Insurance Billing | 3 |
| MOA | 196 | Current Procedural Terminology (CPT) Coding | 3 |
| MOA | 197 | International Classification of Disease (ICD) Coding | 3 |
| MOA | 235 | Health Care Office Procedures | 3 |
| MOA | 265 | Medical Office Administration Externship | 3 |

## Medical Assistant Certificate

This concentrated 43 credit-hour certificate program is designed for the individual who is interested in becoming a medical assistant in a physician's office or other outpatient health care setting. The curriculum provides training in a variety of administrative and clinical tasks to facilitate the work of the physician. Administrative duties include patient communication, computer skills and record keeping. Clinical duties include assisting with examinations, treatments, diagnostic testing, patient education, and preparation and administration of medications.
A minimum keyboarding speed of 30 words per minute is recommended to enter the program. 40 words per minute is expected in order to progress through externship. The program may be taken part-time and many courses are available on an evening schedule. An orientation and planning session is recommended by the coordinator. Detailed information is available on the website harpercollege.edu

## MEDICAL OFFICE ADMINISTRATION

Professional Accreditation and Certification:The Medical Assistant certificate program at Harper College has been accredited by the Commission on the Accreditation of Allied HealthEducational Programs (CAAHEP). Graduates of the programs are eligible to sit for the national certification examination sponsored bythe American Association of Medical Assistants (AAMA). The MOA graduate who successfully completes this national examination iscredentialed as a Certified Medical Assistant (CMA-AAMA).
Please contact the program coordinator for current name(s) and pertinent information regarding the national professional organization(s) affiliated with the programs in the Medical Office Administration department.

## Required

A grade of C or better in all BIO, HSC and MOA courses is required for all students.
BIO 135 Introduction to Human Anatomy and Physiology ${ }^{1}$.................................... 4
ENG 101 Composition ............................................................................................. 3
HSC 104 Health Care Technology and Informatics3
HSC 105 Introduction to Health Care Today ..... 0-2
HSC 107 Basic Health Care Skills ..... 0-1
HSC 112 Medical Terminology ..... 0-2
HSC 165 Basic Pharmacology ..... 0-1
HSC 213 Legal and Ethical Issues in Health Care ..... 0-2
MOA 145 Health Care Records Management ..... 2
MOA 150 Math Applications in Health Care ..... 1
MOA 195 Principles of Health Insurance Billing ..... 3
MOA 215 Clinical Procedures ${ }^{2}$ ..... 8
MOA 235 Health Care Office Procedures ..... 3
MOA 245 Health Care Office Management. ..... 3
MOA 280 Medical Assistant Externship ${ }^{2}$ ..... 3
PSY 101 Introduction to Psychology ..... 3
1 Students must satisfy prerequisites for each course selected.
2 Students must submit an American Heart Association Cardiopulmonary Resuscitation for the Health Care Provider (CPR) certificate before entering externship.

## Medical Transcriptionist Certificate

This concentrated 24 credit-hour certificate program is designed for the individual who is interested in expanding her/his previous health care and/or secretarial experience in order to become a medical transcriptionist. A medical transcriptionist is the health information specialist who transcribes patients' records in a hospital, large health care practice, HMO or clinic. Transcribed records are used in follow-up treatment, by insurance companies to verify claims, to authenticate legal documents, and by medical research specialists in the development of new treatment and diagnostic methods. A new expanding field for the medical transcriptionist is becoming an electronic medical record (EMR) proofreader and editor.
The curriculum provides the training needed to understand the various types of dictation utilized. Medical transcriptionists must possess excellent keyboarding skills and the ability to memorize spellings and meanings of the health care language. A minimum keyboarding speed of 50 words per minute is recommended to enter the program. However, experienced medical transcriptionists frequently reach keyboarding speeds in excess of 80-100 words per minute. 60 words per minute is expected in order to progress through externship. The program may be taken part-time and some courses are available on an evening schedule. An orientation and planning session is recommended by the coordinator. Detailed information is available on the website, harpercollege.edu.

## Professional Accreditation and Certification:

Graduates of the Medical Transcriptionist program are eligible to sit for the national certification examination offered by the American Association for Medical Transcription (AAMT). The medical transcriptionist who successfully completes the national examination is credentialed as a Certified Medical Transcriptionist (CMT). Students in the Medical Transcriptionist program are encouraged to join the local chapter of the AAMT.
Please contact the program coordinator for current names(s) and pertinent information regarding the national professional organization(s) affiliated with the programs in the Medical Office Administration department.

## Required:

A grade of $C$ or better in all BIO, HSC and MOA courses is required for all students.


## NURSING

## Associate in Applied Science A.A.S.: Nursing Degree

This 72 credit-hour program is designed to enable students to receive an Associate in Applied Science degree in Nursing at the completion of the two-year sequence. The program is approved by the Illinois Department of Professional Regulation and accredited by the Accreditation Commission for Education in Nursing,Inc (ACEN).

The Associate in Applied Science degree in Nursing qualifies the graduate for NCLEX-RN and application for Illinois licensure as a registered nurse. Legal limitations could prohibit an individual from taking this licensing examination. Questions regarding these restrictions should be directed to the Illinois Department of Financial and Professional Regulations at 217.782.8556. Positions are available in a variety of health care settings.

Because of the nature of clinical experiences and individual instruction required in this program, specialized technology and the equipment necessary to offer this program, a higher tuition rate is assessed for career-specific courses. These include courses with the NUR prefix. Tuition for these courses in this program is 200 percent of the standard tuition rate.

## Admission Requirements:

Nursing is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925 .6700 or visit harpercollege.edu

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.
Upon admission to the Nursing program, the mathematics requirement is met.

## PREREQUISITES

A grade of C or better in all coursework is required for all students.

| BIO | 160 |  |
| :---: | :---: | :---: |
| BIO | 161 |  |
| ENG | 101 | Composition ... |
| PSY | 101 | Introduction to Psychology . |

## FIRST YEAR First Semester

A grade of $C$ or better in all coursework is required for all students.


## Second Semester

A grade of $C$ or better in all coursework is required for all students.
HSC 201 Advanced Pharmacology ${ }^{1}$................................................................... $0-2$
NUR 140 Adult Health Concepts I ........................................................................... 2
NUR 141 Adult Health Clinical I ............................................................................. 3
NUR 150 Psychosocial Concepts ............................................................................ 2
NUR 151 Psychosocial Concepts Clinical .............................................................. 2
NUR 210 Physical Assessment .............................................................................. 2

## Elective (Optional):

A grade of $C$ or better in all coursework is required for all students.


## SECOND YEAR First Semester

A grade of $C$ or better in all coursework is required for all students.
NUR 201 Child Bearing Concepts ........................................................................ 2

NUR 202 Adult Health Concepts II ......................................................................... 2
NUR 205 Pediatric Health Concepts ....................................................................... 2
NUR 220 Child Bearing Clinical ............................................................................ 2
NUR 240 Adult Health Clinical II ............................................................................. 2
NUR 250 Pediatric Health Clinical .......................................................................... 2
SPE 101 Fundamentals of Speech Communication .............................................. 3

## Second Semester

A grade of $C$ or better in all coursework is required for all students.

| NUR | 216 | Adult Health Concepts III .................................................................. |
| :---: | :---: | :---: |
| NUR | 218 | Role Transition Seminar .................................................................. |
| NUR | 260 | Adult Health Clinical III ..................................................................... |
| NUR | 280 | Role Transition Practicum ... |
|  |  | Social Science or Humanities elective ${ }^{+}$......... |

## NURSING

[^25]
## Certified Nursing Assistant Certificate

This six credit-hour certificate program provides theory and training in the basic skills essential to the practice of health care workers who will assist the nurse in the care of patients in a variety of health care settings. Includes simulated practice and opportunity for clinical application. The course is approved by the Illinois Department of Public Health, Office of Health Regulations. Successful completion is required for application for the Nurse Aide Competency Exam. NOTE: All students are required to have a valid Social Security number, pass a criminal background check and meet health requirements. Special fees apply.

Opportunities for employment are found in settings such as long-term care facilities, home health agencies, hospitals, and private duty.
This program is part of Harper's Dual Credit Career Partnership. Applicants from this high school Dual Credit Career Partnership must have completed the 11th grade prior to entering and must also meet the program's special admission requirements. Special admission requirement options include ENG 100 or ENG 101 with a grade of $C$ or better, or ESL 073 with a grade of B or better, or RDG 090 or RDG 099 with a grade of C or better, or an ACT Reading score of 20 or higher, or required placement test scores.

## Required:

A grade of $C$ or better in this course is required for this certificate.
CNA 101 Nursing Assistant Training ...

## Practical Nursing Certificate

This 37 credit-hour certificate program is designed to educate the student to become a practical nurse.
The Practical Nursing certificate qualifies the graduate to sit for the NCLEX-PN and application for Illinois licensure as a practical nurse. Legal limitations could prohibit an individual from taking this licensing examination. Questions regarding these restrictions should be directed to the Illinois Department of Financial and Professional Regulations at 217.782.8556. Positions in practical nursing are available in a variety of health care settings.

Because of the nature of clinical experiences and individual instruction required in this program and specialized technology and equipment necessary to offer this program, a higher tuition rate is assessed for career specific courses. These include courses with the NUR prefix. Tuition for these courses in this program is 200 percent of the standard tuition rate.

Admission Requirements:
Practical Nursing is a limited enrollment program. For admission requirements, please contact the Admission Outreach Office at 847.925.6700 or visit harpercollege.edu

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

## PREREQUISITES



## FIRST YEAR Summer Semester

A grade of C or better in all BIO, CNA and NUR courses is required for all students.


## Fall Semester

A grade of C or better in all $\mathrm{BIO}, \mathrm{CNA}$ and NUR courses is required for all students.

| BIO | 161 | Human Physiology | 4 |
| :---: | :---: | :---: | :---: |
| NUR | 101 | PN Fundamentals . | 7 |
| NUR | 105 | PN Pharmacology ${ }^{2}$ |  |

## Spring Semester



## SECOND YEAR Summer Semester

A grade of C or better in all $\mathrm{BIO}, \mathrm{CNA}$ and NUR courses is required for all students. NUR 104 PN Field Experience

[^26]NURSING

2 Must be taken during fall semester.

## PARALEGAL STUDIES

Associate in Applied Science A.A.S.: Paralegal Studies Degree
The 63 credit-hour program is designed to prepare men and women as technically qualified assistants to a lawyer. Under the supervision ofa lawyer, the paralegal may perform such functions as legal research, investigation, detail work with regard to probate matters, preparationof tax forms and returns, searching public and court records, office management, library service, bookkeeping, serving and filing legaldocuments and preparing legal forms.
FIRST YEAR First Semester
ENG 101 Composition ..... 3
PLS 101 Introduction to Paralegal Studies ..... 3Humanities elective ${ }^{1}$3
PSY 101
PSY 101
SOC ..... 101
Introduction to Sociology ${ }^{+}$ ..... 3
3
Second Semester
ENG 103 Technical and Report Writing ..... 3
PLS 102 Fundamentals of Legal Research3
PLS 103 Litigation ..... 3
PLS 105 Family Law ..... 3
PLS ..... 123
Real Property Law ..... 3
SECOND YEAR First Semester
Mathematics elective ${ }^{2}$ ..... 3
PLS 201 Tort and Insurance Law ..... 3
PLS 205 Contract Law ..... 3
PLS 210 Corporate and Securities Law ..... 3
PSC 101 American Politics and Government ..... 3
Second Semester
CAS 160 Introduction to Business Software Packages3
Electives ${ }^{3}$ ..... 9
PLS 208 Internship in Paralegal Studies ${ }^{4}$ ..... 3
PLS 223 Computer-Assisted Legal Research ..... 3

1 Humanities electives must be chosen from the following ABA-approved humanities, listed with the requirements for AAS degrees: ART 105, ART 114, ART 130, ART 131, ART 132, any FRN, any GER, any HST, any HUM, any JPN, any LIT, LNG 105, MUS 103, MUS 104, MUS 120, any PHI but not PHI 160, any SPA, or either SPE 107 or SPE 111.

+ This course meets the World Cultures and Diversity graduation requirement.
2 Only 100 level or higher mathematics courses are acceptable for the mathematics elective.
3 LEJ 201 or LEJ 202 (prerequisite of LEJ 101 will be waived for Paralegal Studies degree students), PLS 200, PLS 202, PLS 206, PLS 212, PLS 220, PLS 221, PLS 222, PLS 224, PLS 230.
4 Required for individuals without any legal experience. Individuals with legal experience may substitute another PLS course with coordinator approval.


## Paralegal Studies Certificate

This 24 credit-hour certificate program is designed for those individuals who are currently employed or employable in the legal field or those who, because of legal experience, could benefit from these specialty options. The various choices available allow the student to develop special interests and skills.
To receive a certificate in Paralegal Studies, students must have earned an Associate in Applied Science degree, an Associate in Arts degree, or a bachelor's degree which includes general education courses equivalent to those required in Harper College's Associate in Applied Science degree in Paralegal Studies. Verification of the degree must be submitted before the certificate will be awarded.

Students who complete the 24 credit-hour certificate are eligible to use our computerized placement service and otherwise work as paralegals for a practicing attorney. Students should be aware that there are legal restrictions on the practice of law by laymen.
Students electing to earn a certificate in Paralegal Studies are eligible to apply credits earned toward completion of the Associate in Applied Science degree.

## Required:

PLS 101 Introduction to Paralegal Studies ............................................................ 3
PLS 102 Fundamentals of Legal Research ............................................................ 3
PLS 103 Litigation .................................................................................................. 3
PLS 223 Computer-Assisted Legal Research ....................................................... 3
Electives: Select at least 12 credit hours from the following courses, providing the combination has the approval of the coordinator or a Student Development faculty member.


## PARALEGAL STUDIES

| PLS | 200 | Probate |
| :---: | :---: | :---: |
| PLS | 201 | Tort and Insurance Law |
| PLS | 202 | Estate Planning |
| PLS | 205 | Contract Law |
| PLS | 206 | Environmental Law |
| PLS | 208 | Internship in Paralegal Studies |
| PLS | 210 | Corporate and Securities Law .. |
| PLS | 212 | Law Office Management |
| PLS | 220 | Community Law . |
| PLS | 221 | Bankruptcy Law . |
| PLS | 222 | Intellectual Property |
| PLS | 224 | Commercial Real Estate Law |
| PLS | 230 | Topics in Paralegal Studies |

[^27]
## PARAPROFESSIONAL EDUCATOR

## Associate in Applied Science A.A.S.: Paraprofessional Educator Degree

This 62 credit-hour program is designed to promote the development of skills necessary when working with children in Title 1 programs in the K-12 public or private school classrooms. Students must complete both the required courses for the program and 18 hours of approved electives.

## Required General Education Courses:



## Required Core Courses:

| ECE | 102 | Child Development |
| :---: | :---: | :---: |
| EDU | 201 | Introduction to Education |
| EDU | 202 | Pre-Student Teaching Clinical Experience |
| EDU | 211 | Educational Psychology . |
| EDU | 219 | Students With Disabilities in School |
| EDU | 220 | Diversity in Schools and Society ${ }^{+}$..................................................... |
| EDU | 230 | Introduction to Language Arts in Elementary/Middle School Teaching ..... |
| EDU | 250 | Introduction to Technology in Education .............................................. |
| LIT | 219 | Children's Literature ......................................................................... |

## Electives: Select 18 credit-hours from the following courses:

ANT 101 Introduction to Anthropology ..................................................................... 3
ANT 202 Cultural Anthropology ............................................................................. 3
ART 105 Introduction to Arts or
ART 130 Ancient and Medieval Art ......................................................................... 3
ECE 120 Introduction to Special Education for Paraprofessionals .......................... 3
ECE $121 \quad$ Behavioral Management in Special Education Setting ..... 33
ENG 102 Composition
GEG 101 World/Regional Geography ..... 
HST 111 The American Experience to 1877 ..... 3
HST 112 The American Experience Since 1877 ..... 3
LNG 105 Introduction to Language and Linguistics3
MTH 131 Mathematics for Elementary Teaching II ..... 4
PHS $112 \quad$ Introduction to Physical Science or Exploring the Earth and Universe ..... 4
PSY 217 Adolescent Psychology or
PSY 228 Psychology of Human Development ..... 3
SGN 101 American Sign Language I ..... 4

+ This course meets the World Cultures and Diversity graduation requirement.


## Paraprofessional Educator Certificate

This 32 credit-hour program is designed to promote the skills necessary when working with children in non-title 1 positions in K-12 public or private schools. Individuals can also use the certificate program toward completion of the Paraprofessional Education associate in applied science degree.

## Required:

| ECE | 102 | Child Development |
| :---: | :---: | :---: |
| EDU | 201 | Introduction to Education |
| EDU | 202 | Pre-Student Teaching Clinical Experience |
| EDU | 211 | Educational Psychology |
| EDU | 219 | Students With Disabilities in School |
| EDU | 220 | Diversity in Schools and Society |
| EDU | 230 | Introduction to Language Arts in Elementary/Middle School Teaching ..... |
| EDU | 250 | Introduction to Technology in Education |
| LIT | 219 | Children's Literature |
| MTH | 130 | Mathematics for Elementary Teaching I |
| PSY | 101 | Introduction to Psychology ................................................................ |

## PHLEBOTOMY

## Phlebotomy Certificate

This 8 credit-hour certificate program consists of lectures, student laboratories and a clinical internship arranged in a local health care facility. This certificate is useful for a number of health care professionals interested in developing the skills and techniques involved in the collection of blood from patients or donors for diagnostic testing. In addition, ethical and legal responsibilities, effective communication skills and safe practices are studied. Phlebotomists are employed in hospitals, hospital laboratories, physician offices, clinics, blood banks, commercial laboratories, or similar facilities. Phlebotomy has become a fast-growing health occupation and is considered a profession with a standardized educational curriculum and accepted routes for national certification.

## Required:



## RADIOLOGIC TECHNOLOGY

## Associate in Applied Science A.A.S.: Radiologic Technology Degree

This 74 credit-hour full-time curriculum prepares radiographers to produce radiographic images of parts of the human body for use in diagnosing medical problems. Additional duties may include processing and evaluating images, evaluating radiology equipment, and providing relevant patient care and education. The program provides both classroom and clinical instruction in anatomy and physiology, radiobiology, pathology, medical imaging and processing, radiation physics, positioning of patients, patient care procedures, radiation protection, and medical ethics.
Radiographers are employed in health care facilities including hospitals and clinics, specialized imaging centers, urgent care clinics, physician offices and government offices. Some radiographers are employed in educational institutions and in industry.

Because of the nature of clinical experiences and individualized instruction in this program, and specialized technology and the equipment necessary to offer this program, a higher tuition rate is assessed for career specific courses. These include courses with the RAD prefix. Tuition for these courses in this program is 200 percent of the standard tuition rate.

## Admission Requirements:

Radiologic Technology is a limited enrollment program. For admission requirements, please contact the Admissions Outread Office at 847.925.6700 or visit harpercollege.edu

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

## PREREQUISITES

A grade of $C$ or better in all coursework is required for all students.

| BIO | 160 | Human Anatomy ${ }^{1}$ | 4 |
| :---: | :---: | :---: | :---: |
| BIO | 161 | Human Physiology ${ }^{1}$ | 4 |
| ENG | 101 | Composition | 3 |

## FIRST YEAR First Semester

A grade of C or better in all coursework is required for all students.
HSC 104 Health Care Technology and Informatics .............................................. 0-2

HSC 107 Basic Health Care Skills ....................................................................... 0-1

Mathematics ${ }^{2}$..................................................................................... 3
RAD 101 Introduction to Radiologic Technology ...................................................... 2
RAD 102 Radiologic Procedures I ......................................................................... 3
RAD 103 Radiologic Principles I ............................................................................. 3

## Second Semester

A grade of $C$ or better in all coursework is required for all students.

| HSC | 165 | Basic Pharmacology |
| :---: | :---: | :---: |
| HSC | 213 | Legal and Ethical Issues in Health Care |
| RAD | 105 | Radiologic Procedures II |
| RAD | 106 | Radiologic Principles II |
| RAD | 107 | Radiologic Clinical Education I |
| SOC | 101 | Introduction to Sociology ${ }^{+}$ |

## Summer Semester

A grade of $C$ or better in all coursework is required for all students.

| RAD | 201 | Radiologic Clinical Education II ......................................................... |
| :---: | :---: | :---: |
| RAD | 202 | Radiologic Procedures III ........ |

## SECOND YEAR First Semester

A grade of $C$ or better in all coursework is required for all students.

| RAD | 222 | Radiologic Procedures IV |
| :---: | :---: | :---: |
| RAD | 223 | Advanced Radiologic Principles ......................................................... |
| RAD | 224 | Radiobiology |
| RAD | 225 | Radiologic Clinical Education III .. |
| SPE | 101 | Fundamentals of Speech Communication ........................................... |

## Second Semester

A grade of $C$ or better in all coursework is required for all students.

| RAD | 228 | Digital Imaging | 1 |
| :---: | :---: | :---: | :---: |
| RAD | 236 | Radiologic Pathology | 3 |
| RAD | 237 | Radiologic Quality Assurance | 1 |
| RAD | 238 | Sectional Anatomy for Imaging | 2 |
| RAD | 239 | Radiologic Special Procedures . | 3 |
| RAD | 240 | Radiologic Clinical Education IV | 3 |

## RADIOLOGIC TECHNOLOGY

## Summer Semester

A grade of $C$ or better in all coursework is required for all students.

| RAD | 251 | Radiologic Clinical Education V | 3 |
| :---: | :---: | :---: | :---: |
| RAD | 258 | Radiologic Seminar ... |  |

1 Must be completed no earlier than five years prior to beginning the Radiologic Technology program.
2 MTH 101 or higher with a grade of C or better.

+ This course meets the World Cultures and Diversity graduation requirement.


## Computerized Tomography (CT) Certificate

This 16 credit-hour, year-long certificate program prepares ARRT registered radiologic technologists to produce cross-sectional images of the body, utilizing computed tomography equipment, in order to diagnose abnormalities that are difficult to evaluate with conventional radiography. The program offers a combination of clinical and didactic educational experiences that will provide the student with the necessary knowledge and skills to become an entry-level CT technologist. Students will learn the physics and instrumentation of computed tomography, clinical procedures and protocols, patient care and radiation safety. Upon completion of the CT program, the radiologic technologist will be eligible for certification by the American Registry of Radiologic Technologists (ARRT) in Computed Tomography.
Because of the nature of clinical experiences and individualized instruction in this program, and specialized technology, and the equipment necessary to offer this program, a higher tuition rate is assessed for career specific courses. These include courses with the RAD prefix. Tuition for these courses in this program is 200 percent of the standard tuition rate.

## Admission Requirements

Computerized Tomography is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

## FIRST YEAR

First Semester
A grade of $C$ or better in all coursework is required for all students.

| RAD | 238 | Sectional Anatomy for Imaging .......................................................... |
| :---: | :---: | :---: |
| RAD | 260 | CT Procedures/Patient Care .............................................................. |
| RAD | 261 | CT Principles I. |

## Second Semester

A grade of $C$ or better in all coursework is required for all students.

| RAD | 262 | CT Principles II | 2 |
| :---: | :---: | :---: | :---: |
| RAD | 263 | CT Clinical Education I | 3 |

## SECOND YEAR

First Semester
A grade of $C$ or better in all coursework is required for all students.
RAD 264 CT Clinical Education II
3

## Mammography Certificate

This four credit-hour certificate program will provide the American Registry of Radiologic Technology (ARRT) registered radiologic technologist the opportunity to expand their skills into the study in the theory and practice of mammography. The mammogram is a noninvasive procedure that assists in the detection of breast cancer.
Individuals who successfully complete this program are eligible to take the ARRT Mammography registry exam.
Because of the nature of clinical experiences and individualized instruction in this certificate, and specialized technology and the equipment necessary to offer this certificate, a higher tuition rate is assessed for career-specific courses. These include courses with the RAD prefix. Tuition for these courses in this certificate is 200 percent of the standard tuition rate.

## Admission Requirements:

Mammography is a limited enrollment program. For admission requirements, please contact the Admissions Outreach Office at 847.925.6700 or visit harpercollege.edu

Students who apply for this limited enrollment program are obligated to meet current admission requirements and follow program curriculum as defined at the time of acceptance to the program.

## Required:

A grade of $C$ or better in all RAD courses is required for all students.

| RAD | 215 | Principles and Procedures in Mammography . |
| :---: | :---: | :---: |
| RAD | 216 | Mammography Externship . |

## SIGN LANGUAGE INTERPRETING

## Sign Language Interpreting Certificate

This 40 credit-hour certificate program is designed to provide students with entry-level interpreting and transliterating skills, a general knowledge of Deaf culture and an understanding of the interpreting profession. Students enrolled in the program need to possess fluency in American Sign Language and English and need to have met the prerequisites for entry into the program. For individuals who do not yet possess sign language fluency, Harper College offers the following courses to assist in acquiring the necessary skills: SGN 101, SGN 102, SGN 103, SGN 201, and SGN 202. (See Sign Language course information.)
Successful completion of this program provides a foundation for students to take written and/or performance examinations leading to select credentials. Students should be aware that there are legal restrictions that apply to interpreters in the State of Illinois. Individuals in Illinois working toward becoming (or already working as) interpreters should familiarize themselves with the Interpreter for the Deaf Licensure Act of 2007.

## Required:

| ITP | 101 | Introduction to Interpreting |
| :---: | :---: | :---: |
| ITP | 110 | Consecutive Interpreting: English to ASL |
| ITP | 111 | Consecutive Interpreting: ASL to English ${ }^{1}$ |
| ITP | 120 | Simultaneous Intepreting: English to ASL I |
| ITP | 121 | Simultaneous Interpreting: ASL to English I . |
| ITP | 200 | Transliterating and the Educational Setting |
| ITP | 211 | Simultaneous Interpreting: ASL to English II |
| ITP | 215 | Interpreting: Dialogic Discourse |
| ITP | 216 | Simultaneous Interpreting: English to ASL II . |
| ITP | 220 | Interpreting Practicum ${ }^{2}$. |
| SGN | 205 | American Sign Language V 3 |
| SGN | 210 | American Sign Language: Cultural Perspective ${ }^{4}$ |

## Electives:

ITP 105

Vocabulary Development for Interpreters: English ..................................
ITP 106

Vocabulary Development for Interpreters: American Sign Language ....... 1
ITP 201 Topics in Interpreting ......................................................................... 1-4

[^28]
## SUPPLY CHAIN MANAGEMENT

Inventory Control/Production Control CertificateThis 12 credit-hour certificate program is designed for those currently employed in or seeking employment in the fields of inventory orproduction control. The course work is specific to those jobs and issues that deal with all aspects of maintaining inventory for increasingproduction levels.
The Associate in Applied Science in Business Administration includes a specialized study area for Supply Chain Management. Please referto Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Required:

| SCM | 101 | Supply Chain Management | 3 |
| :---: | :---: | :---: | :---: |
| SCM | 120 | Production Control Concepts | 3 |
| SCM | 122 | Inventory Control | 3 |
| SCM | 226 | Material Requirements Planning (MRP) | 3 |

## Physical Distribution Certificate

This 12 credit-hour certificate program is designed for those currently employed in or seeking employment in physical distribution positions. Topics covered will provide the graduate with knowledge of distributing, warehousing, stocking and shipping materials for various industries.
This 12 credit-hour certificate program is designed for those currently employed in or seeking employment in the fields of inventory or production control. The course work is specific to those jobs and issues that deal with all aspects of maintaining inventory for increasing production levels.

The Associate in Applied Science in Business Administration includes a specialized study area for Supply Chain Management. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Required:

SCM 101 Supply Chain Management .................................................................... 3
SCM 121 Principles of Physical Distribution ........................................................... 3
SCM 122 Inventory Control ..................................................................................... 3
SCM 227 Just-in-Time (JIT) .................................................................................... 3

## Purchasing Certificate

This 12 credit-hour certificate program is designed for those currently employed in or seeking employment in purchasing positions in various industries. The curriculum emphasizes developing the competencies necessary for on-the-job purchasing management expertise.
This 12 credit-hour certificate program is designed for those currently employed in or seeking employment in the fields of inventory or production control. The course work is specific to those jobs and issues that deal with all aspects of maintaining inventory for increasing production levels.

The Associate in Applied Science in Business Administration includes a specialized study area for Supply Chain Management. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Required:

| SCM | 101 | Supply Chain Management .............................................................. |
| :---: | :---: | :---: |
| SCM | 122 | Inventory Control .............................................................................. |
| SCM | 125 | Purchasing. |
| SCM | 259 | Advanced Purchasing ...................................................................... |

Supply Chain Management Certificate
This 18 credit-hour certificate program is designed to provide in-service education for those persons working directly in, or in fields related to, supply chain management. This particular curriculum format is especially suitable for those who may be in the field and are seeking to fill in knowledge or skill "gaps" in their total preparation. Additionally, the program may provide pre-service training for those who may seek or be transferred into jobs within these fields.
The Associate in Applied Science in Business Administration includes a specialized study area for Supply Chain Management. Please refer to Business Administration in this section of the catalog if you are interested in pursuing a degree in this discipline.

## Required:

SCM 101 Supply Chain Management ...................................................................... 3
Electives: Group I (Select 12 credit hours from the following):
SCM 120 Production Control Concepts ................................................................... 3
SCM 121 Principles of Physical Distribution .......................................................... 3
SCM 122 Inventory Control ..................................................................................... 3
SCM 123 Traffic and Transportation ..................................................................... 3
SCM 124 Material Handling and Packaging ............................................................ 3
SCM 125 Purchasing ............................................................................................. 3

## SUPPLY CHAIN MANAGEMENT

## Electives: Group II (Select one course):



## WEB DEVELOPMENT

## Associate in Applied Science A.A.S.: Web Development Degree

The 60 credit-hour technical curriculum trains students for various positions in the fields of web design and web development. The student may choose from three specialized study areas: Web Application Development, Web Interactive Multimedia or Web Visual Design. Graduates of the program may find employment as web developers, web designers, web multimedia specialists, web site managers, and consultants.

## FIRST YEAR First Semester

CIS 101 Introduction to Computer Information Systems ........................................ 3
ENG 101 Composition ........................................................................................... 3
Mathematics elective ${ }^{1}$................................................................................ 3
NET 105 Introduction to Operating Systems .......................................................... 3
WEB 150 Web Development I ........................................................................................ 3

## Second Semester

| CAS | 160 | Introduction to Business Software Packages ....................................... |
| :---: | :---: | :---: |
| ENG | 102 | Composition or |
| ENG | 103 | Technical and Report Writing or |
| SPE | 101 | Fundamentals of Speech Communication ........................................... |
| WEB | 180 | Web Multimedia |
| WEB | 190 | Web Authoring Tools |
| WEB | 200 | Web Development II.... |

## SECOND YEAR: Choose one of the specialized study areas:

 WEb APPLICATION DEVELOPMENT
## First Semester

CIS 143 Introduction to Database Systems .......................................................... 3
WEB 210 Web Accessibility ..................................................................................... 3Second Semester

|  |  | Humanities, Natural Science, or Social Science elective ${ }^{2}$..................... |
| :---: | :---: | :---: |
| NET | 122 | Internet Protocols ............................................................................. |
| WEB | 240 | E-Commerce Development ............................................................... |
| WEB | 250 | Server-Side Scripting ...................................................................... |

## WEB INTERACTIVE MULTIMEDIA

First Semester

|  |  | Humanities, Natural Science, or Social Science elective ${ }^{2}$..................... |
| :---: | :---: | :---: |
| WEB | 170 | Web Graphics ................................................................................ |
| WEB | 185 | Motion Graphics and Effects ............................................................ |
| WEB | 210 | Web Accessibility .. |
| WEB | 220 | Flash Multimedia II. |

Second Semester

| MKT | 245 |
| :--- | :--- |
| MKT | 252 |
| WEB | 240 |
| WEB | 260 |

Humanities, Natural Science, or Social Science elective ${ }^{2}$6
Principles of Marketing or
Internet Marketing ..... 3
E-Commerce Development ..... 3WEB 260
Interactive Multimedia ..... 3
WEB VISUAL DESIGN
First Semester ..... GRA 10
Introduction to Graphic Arts Technology ..... 3
Humanities, Natural Science, or Social Science elective ${ }^{2}$ ..... 3
MCM 120 Introduction to Mass Communication ..... 3
WEB 170 Web Graphics ..... 3
WEB 210 Web Accessibility ..... 3
Second Semester$\begin{array}{ll}\text { MKT } & 245 \\ \text { MKT } & 252\end{array}$
Humanities, Natural Science, or Social Science elective ${ }^{2}$ ..... 6
Principles of Marketing or Internet Marketing ..... 3
WEB 240 E-Commerce Development ..... 3
Web Visual Design elective ${ }^{3}$ ..... 3

## WEB DEVELOPMENT

1 Students must take at least three credit hours in a mathematics course at the level of MTH 101 or above.
2 Students must take nine (9) hours in a minimum of two of these areas; students in the Web Interactive Multimedia or Visual Design specialization must take ART 105 and ART 121. At least one of the Humanities or Social Science requirements must also meet the World Cultures and Diversity graduation requirement.
3 Web Visual Design electives: GRA 103, NET 121, WEB 185, WEB 220, WEB 235, or WEB 299.

## Accessible Web Design and Compliance Certificate

This 6 credit-hour certificate program provides a foundation in web design with an emphasis on best practices in compliance with federal, state and industry accessibility standards. This program will be useful to web developers, web designers, graphic designers, educators and instructional technologists who need to design and modify web sites to comply with industry and legal accessibility requirements.

## Required:

WEB 150 Web Development I ................................................................................ 3
WEB 210 Web Accessibility .................................................................................. 3

## Web Development Certificate

This 18 credit-hour certificate program provides a background in web development with an emphasis on web site front-end client scripting and programming techniques. Individuals seeking entry-level positions in the field of web development and maintenance will find these skills helpful. This program will also be useful to individuals whose job scope has expanded to include web site responsibilities.

## Required:



## Web Visual Design Certificate

This 18 credit-hour certificate program provides a background in web development with an emphasis on graphic and visual techniques. Individuals seeking entry-level positions in the field of web development will find these skills helpful. This program will also be helpful to individuals whose job scope has expanded to include web site responsibilities.

## Required:

| WEB | 150 | Web Development | 3 |
| :---: | :---: | :---: | :---: |
| WEB | 170 | Web Graphics | 3 |
| WEB | 180 | Web Multimedia | 3 |
| WEB | 190 | Web Authoring Tools | 3 |
| WEB | 200 | Web Development II | 3 |
| WEB | 210 | Web Accessibility | 3 |

## WELDING TECHNOLOGY

Associate in Applied Science A.A.S.: Welding Technology DegreeThis 60 credit-hour program prepares students for employment in the high demand welding and fabrication sector of the economy.Graduates may find employment as welders, fabricators and welder supervisors in the manufacturing and construction industries.
FIRST YEAR First Semester ..... 3
MTH 097 Basic Technical Mathematics ${ }^{2}$
MTH 097 Basic Technical Mathematics ${ }^{2}$ ..... 3
MNT 111 Prints and Schematics ..... 2
WLD $110 \quad$ Welding I ..... 3
WLD 210 Welding II ..... 3
WLD 225 Advanced Blueprint Reading2
Second Semester
Communications elective ${ }^{1}$ ..... 3
Natural Science or Social Science elective ${ }^{+}$ ..... 3
WLD 211 Welding III ..... 4
WLD 212 Welding IV ..... 4
SECOND YEAR First Semester
WLD 240 Cutting Processes ..... 4 ..... 3
WLD 249 Applied Welding Theory ..... 3
Second Semester
Humanities elective ${ }^{+}$ ..... 3
Natural Science or Social Science elective ${ }^{+}$ ..... 3
Technical elective ${ }^{3}$ ..... 3
WLD 250 Welding Fabrication II ..... 4
WLD 253 Welding Power Sources ..... 3

1 One of the Communications electives must be ENG 101 or ENG 130. The second communications elective must be chosen from one of the following: ENG 100, ENG 102, ENG 103 or SPE 101. Students are encouraged to meet with a Student Development faculty counselor for advice in the selection of courses.
2 Students may take MTH 097, MTH 101, MTH 103, or higher.

+ At least one of the Humanities or Social Science requirements must also meet the World Cultures and Diversity graduation requirement.
3 Technical electives: MFT 105, MFT 120, MFT 265, WLD 246, WLD 248, WLD 260, WLD 261, WLD 285.


## Advanced Welding Certificate

This 33 credit-hour certificate program is designed to give students advanced knowledge and skills in welding. The program of study will emphasize advanced welding theory, and practical application of the major forms of welding. Students will learn to interpret welding blueprints and develop the skills necessary to pass welder qualification tests. Students will meet AWS SENSE (School Excelling through National Skill Standards Education) training standards for certification as an AWS Level II Advanced Welder.

## Required:

| MFT | 265 | Properties of Materials | 2 |
| :---: | :---: | :---: | :---: |
| MNT | 111 | Prints and Schematics | 2 |
| MTH | 097 | Basic Technical Mathematics ${ }^{1}$ | 3 |
| WLD | 110 | Welding I | 3 |
| WLD | 210 | Welding II | 3 |
| WLD | 211 | Welding III | 4 |
| WLD | 212 | Welding IV | 4 |
| WLD | 225 | Advanced Blueprint Reading | 2 |
| WLD | 249 | Applied Welding Theory | 3 |
| WLD | 253 | Welding Power Sources | 3 |
| WLD | 260 | Arc Welder Qualification or |  |
| WLD | 261 | Mig Welder Qualification | 4 |

1 Students may take MTH 097, MTH 101, MTH 103, or higher

## Basic Pipe Welding Certificate

This 16 credit-hour certificate program is designed to give students entry-level skills in basic pipe welding. The program of study will emphasize extensive practice in the major arc welding process, and out-of-position and multi-pass arc welding including GMAW, SMAW and GTAW. Students will work from blueprints and develop the welding skills necessary to perform SMAW pipe welding with E6010 and E7018 electrodes in all positions.
Required:

| MNT | 111 | Prints and Schematics .................................................................... |
| :---: | :---: | :---: |
| WLD | 110 | Welding I ........................................................................................ |

## WELDING TECHNOLOGY

| WLD | 210 | Welding II ...................................................................................... |
| :---: | :---: | :---: |
| WLD | 246 | Pre-Pipe Welding |
| WLD | 248 | Basic Pipe Welding ......................................................................... |

## Basic Welding Certificate

This 16 credit-hour certificate program is designed to give students entry-level skills in welding. The program of study will emphasize welding safety, extensive practice in the major arc welding process, and out-of-position and multi-pass arc welding including GMAW, SMAW, and GTAW. Students will work with mild steel, stainless steel and aluminum. Students will work on the welding skills necessary to pass welder qualification tests. Students will meet the AWS (American Welding Society) SENSE (Schools Excelling through National Skill Standards Education) training standards for certification in AWS Level 1 - Entry Welder.

## Required:



## Welding Fabrication Certificate

This 32 credit-hour certificate program is designed to give students entry-level skills in welding fabrication. The program of study will emphasize advanced welding theory, extensive practice in the major arc welding process, and out-of-position and multi-pass arc welding including GMAW, SMAW and GTAW. Students will work from blueprints and develop the welding skills necessary to construct quality fabricated metal weldments.

## Required:

| MNT | 111 | Prints and Schematics | 2 |
| :---: | :---: | :---: | :---: |
| MTH | 097 | Basic Technical Mathematics ${ }^{1}$ | 3 |
| WLD | 110 | Welding I | 3 |
| WLD | 210 | Welding II | 3 |
| WLD | 211 | Welding III | 4 |
| WLD | 212 | Welding IV | 4 |
| WLD | 225 | Advanced Blueprint Reading | 2 |
| WLD | 240 | Cutting Processes | 3 |
| WLD | 245 | Welding Fabrication I | 4 |
| WLD | 250 | Welding Fabrication II | 4 |

[^29]
## ACC Accounting

ACC 100 Introductory Accounting (3-0)
3 crs.
Provides students with a foundation in fundamental accounting procedures using the accounting cycle for both service and merchandising businesses, including adjustments, preparation of financial statements and closing procedures. Also included are reconciliation of bank statements, petty cash and examination of fraud and internal controls. This non-transfer course is intended for those students planning to take only one semester of accounting or for those who need preparation before enrolling in ACC 101.

ACC 101 Introduction to Financial Accounting (4-0) 4 crs. Presents accounting as an information system that produces summary financial statements primarily for users external to a business. Emphasizes the reporting of the effect of transactions and other economic events on the financial condition and operating results of a business. Topics include: basic accounting concepts, financial statements, accrual and cash basis, the accounting cycle, monetary assets, inventories, fixed assets, current and long-term liabilities, and owner's equity. The course assumes a corporate form of organization. NOTE: High school algebra is recommended. IAI BUS 903

ACC 102 Introduction to Managerial Accounting (3-0) $\mathbf{3}$ crs.
Presents accounting as a system of producing information for internal management use in a business. Emphasis is on the identification, accumulation and interpretation of information for planning, controlling and evaluating the performance of the separate components of a business. Topics include: theory and application of product costing, operational control, cost allocation, performance evaluation for manufacturing and service organizations, standard costing, job order and process costing, budgeting, JIT inventory control, decentralized operations, differential analysis, capital investment analysis and financial statement analysis. IAI BUS 904
Prerequisite: ACC 101 with a grade of $C$ or better.
ACC 110 Quickbooks I (0.5-1) 1 cr.
Provides students an overview and application of QuickBooks. In this course students apply accounting principles and manage accounting records like those used in small businesses.
Prerequisite: Prior or concurrent enrollment in ACC 100 or ACC 101.

ACC 111 Quickbooks II (0.5-1)
Provides students intermediate applications of QuickBooks. In this course, students apply accounting principles and manage accounting records like those used in small businesses.
Prerequisite: ACC 110 or equivalent experience and familiarity with QuickBooks.

## ACC 155 Payroll Accounting (2-0)

2 crs.
Explains the preparation of payroll records including the tax returns for old-age benefits and employment insurance. Prerequisite: ACC 100 or ACC 101.

ACC 201 Intermediate Accounting I (3-0)
3 crs.
Presents accounting and reporting process, accounting theory, inventories, tangibles and intangible fixed assets. This is a problem solving course that continues accounting principles begun in ACC 101 and ACC 102.
Prerequisite: ACC 102 with a grade of $C$ or better.
ACC 202 Intermediate Accounting II (3-0)
3 crs.
Presents course materials in the following sequences: Accounting for corporations, including capital stock, retained earnings, bonds payable, income statement and balance sheet analysis, pensions and leases, fund flow analysis, consignments, and installment sales.
Prerequisite: ACC 201 with a grade of C or better.

ACC 203 Introductory Cost Accounting (3-0) 3 crs. Includes an examination of the nature of costs and the use of relevant accounting data for purposes of improved decision making. Topics covered are product costs (process, job order, and standard), overhead variance, by-product costs, joint-product cost, and direct and variable costing.
Prerequisite: ACC 102 with a grade of $C$ or better.
ACC 211 Business Law I (3-0)
Presents the history of the source of law, civil and criminal wrongs, law of contracts, agency, employment, property, and related topics. Problems and case materials are used. (NOTE: Transfer students should check with the school they will be transferring to regarding the transferability of this course.)

ACC 212 Business Law II (3-0)
Presents business organizational concepts, commercial transactions, basic legal concepts of commercial paper, sales, secured transactions, creditors' rights, and related topics. Problems and case materials are used.
Prerequisite: ACC 211 with a grade of "C" or better. (NOTE:
Transfer students should check with the school they will be transferring to regarding the transferability of this course.)

ACC 213 Legal Environment of Business (3-0) 3 crs.
Introduces the student to the nature, function, and application of law in the commercial context. Emphasizes the regulation of business by statutes, administrative regulations, and court decisions.

ACC 216 Employment Law (3-0)
Examines past and present employment laws in the United States and their impact on employers and employees. Creates an understanding of the rights, duties, and obligation of both employment groups under the law.

ACC 250 Income Tax Accounting (3-0)
Offers a practical study of current Federal and Illinois income taxes as they relate to business and individual income tax procedures. Topics studied include income inclusions and exclusions, capital gains and losses, business and personal deductions, and accounting methods.
Prerequisite: ACC 102 with a grade of $C$ or better.
ACC 251 Advanced Tax Accounting (3-0) 3 crs.
Presents the basic concepts of corporation income taxation, partnerships, estates and trusts. The course includes a study of the taxation on the transfer of wealth, both during lifetime and testamentary.
Prerequisite: ACC 102 with a grade of $C$ or better.
ACC 253 Advanced Accounting I (3-0)
3 crs.
Studies municipal accounts, business combinations and the preparation of consolidated financial statements. Topics will include branches, consolidated statements, elimination of intercompany transactions, general funds and non-profit service organizations.
Prerequisite: ACC 202 with a grade of $C$ or better.
ACC 254 Auditing (3-0)
3 crs.
Examines the auditory theory and procedures involving the topical areas of audit reporting, auditing standards and evidence, statistical sampling and electronic data processing. The legal and ethical dimensions of auditing will also be studied with emphasis on how government affects financial reporting through court decisions, federal securities laws, the S.E.C. and the Foreign Corrupt Practice Act.
Prerequisite: ACC 202 with a grade of $C$ or better.

## ACC 256 Enrolled Agent Exam Review (3-0)

Provides an intensive review of federal taxes that will help students prepare for the rigorous Enrolled Agent Exam administered by the Internal Revenue Service. Taxation subjects to be covered include personal income taxes, partnerships, corporate, trusts, estates and others.
Prerequisite: ACC 250 and ACC 251, or equivalent experience with consent of instructor.

ACC 260 Financial Research (1-0)
1 cr.
Presents basic techniques of conducting financial accounting research using professional accounting databases. Students will develop skills necessary to research and interpret financial accounting standard guidelines using accounting related cases. Students will communicate their research results in a professional business format. Recommended prerequisite: ACC 201 or equivalent experience.

## ACC 261 Tax Research (1-0)

1 cr.
Presents basic techniques of conducting federal tax research using authoritative databases. Students will develop skills necessary to research and interpret tax case guidelines using tax cases. Students will communicate their research results in a professional business format. Recommended prerequisite: ACC 250 or equivalent experience.

ACC 295 Topics in Accounting (1-0 to 4-0) 1-4 crs. Provides seminars and courses on varying topics that are current and relevant to accounting students and business professionals. This course may be taken up to four (4) times for a total of 4 credit hours. Prerequisites will vary according to the topic.
Prerequisite: Will vary according to topic.

## AED Adult Education

## AED 001 Nonnative Literacy Skills I (1-0 to 4-0)

1-4 crs.
Introduces basic English conversation and literacy skills. Develops the listening, speaking, reading and writing skills necessary to basic survival needs. Topics may include personal data, general information, social skills/American culture, health, housing, civics, consumer skills, employment skills and transportation. Grammar points are integrated as appropriate. Focuses on vocabulary acquisition and beginning listening and literacy skills. This course is the first in a sequence of five courses. It is for students of English who have limited native language literacy skills. Students must take a language skills test which identifies the Nonnative Literacy student before enrolling. Carries no transfer credit.
AED 002 Nonnative Literacy Skills II (1-0 to 4-0)
1-4 crs.
Continues to introduce basic English conversation and literacy skills. Develops the listening, speaking, reading and writing skills necessary to basic survival needs. Topics may include personal data, social skills/American culture, health, housing, civics, consumer skills and employment skills. Grammar points are integrated as appropriate. Focuses on using basic vocabulary and literacy skills in daily routine situations. This course is the second in a sequence of five courses. It is for students of English who have limited native language literacy skills. Students must take a language skills test which identifies the Nonnative Literacy student before enrolling.Carries no transfer credit.

AED 003 Nonnative Literacy Skills III (1-0 to 4-0) 1-4 crs. Extends basic English conversation and literacy skills. Develops the listening, speaking, reading, and writing skills necessary to basic survival needs. Topics may include general information, social skills/American culture, civics, health, housing, community skills, consumer skills, employment skills and transportation. Grammar points are integrated as appropriate. This course is the third in a sequence of five courses. It is for students of English who have limited native language literacy skills. Students must take a language skills test which identifies the Nonnative Literacy student before enrolling. Carries no transfer credit.

3 crs.

$\qquad$<br>$\qquad$ cr.

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AED 023 Pre-GED Reading Skills (1-0 to 3-0) 1-3 crs.
Reinforces and reviews word recognition and word attack skills of structural analysis; comprehension and advanced reading skills including deriving meaning from words, sentences, selections and identifying sequence; specialized reading skills including locating and organizing information, reading maps and interpreting graphs, tables or diagrams; and personal reading skills. Introduces skills of application, analysis and evaluation. Prepares the student for AED 025. Carries no transfer credit.
AED 025 GED Social Studies and Science (1-0 to 6-0) 1-6 crs. Reviews specific social studies, science and United States/lllinois Constitution content areas and skills. Emphasis is upon review of comprehension, application, analysis and evaluation levels of cognitive skills. Prepares the student for the GED Social Studies, Science and U.S./Illinois Constitution tests. Carries no transfer credit.

## AED 031 Basic English Skills (1-0 to 6-0)

1-6 crs.
Presents basic English grammar and usage, spelling rules, vocabulary/dictionary use, capitalization and punctuation. Develops skills in producing short, clear writing examples. Prepares the student for AED 033. Carries no transfer credit.

AED 033 Pre-GED English Skills (1-0 to 3-0) 1-3 crs.
Reinforces basic English grammar and usage, spelling rules, vocabulary/dictionary use, capitalization, punctuation and sentence/paragraph development. Introduces skills of application, analysis and evaluation. Prepares the student for AED 035. Carries no transfer credit.

AED 035 GED Writing Skills and Literature (1-0 to 3-0) 1-3 crs. Reviews basic grammar and usage; sentence structure, style, logic and paragraph organization, punctuation, capitalization and spelling. Produces writing samples that require the writer to take a position and defend it with appropriate evidence, detail and argumentative strategies. Prepares students for the GED Writing Skills Test. Reviews literary types, terms, techniques, interpretation and commentary to prepare the student for the GED Interpreting Literature and the Arts Test. Carries no transfer credit.

AED 041 Basic Mathematical Skills (1-0 to 6-0) 1-6 crs. Introduces basic arithmetic skills including the fundamental operations with whole numbers, decimals, fractions and mixed numbers, verbal reasoning and measurement systems. Prepares the student for AED 043. Carries no transfer credit.

AED 043 Pre-GED Mathematical Skills (1-0 to 3-0) 1-3 crs. Reinforces arithmetic skills including the fundamental operations with decimals, fractions, mixed numbers, verbal reasoning and measurement systems. Introduces percents, ratio and proportion, and charts and graphs. Introduces comprehension, application, analysis and evaluation levels of cognitive skills. Prepares the student for AED 045. Carries no transfer credit.

## AED 045 GED Mathematics (1-0 to 3-0) 1-3 crs.

Reviews arithmetic skills including decimals, fractions, numbers, verbal reasoning, measurement, percents, ratio and proportion and charts and graphs. Introduces algebra and geometry concepts, multi-step problem solving, using formulas and numeration statistics. Emphasizes review of comprehension, application, analysis, and evaluation levels of cognitive skills. Prepares the student for the GED Mathematics Test. Carries no transfer credit.

AED 053 Bridge to Technical Trades in Manufacturing/ Intermediate (4-0)
Integrates basic listening, speaking, reading, writing and math skills with occupational-specific knowledge in the manufacturing sector. Contextualizes skills to prepare students to transition into post-secondary and/or employment. Designed for students assessed at the ABE (pre-GED) reading level. Includes career awareness and intensive supportive services. Carries no transfer credit.

## AED 055 Bridge to Technical Trades in Manufacturing/

 Advanced (4-0)4 crs.
Expands listening, speaking, reading, writing and math skills with occupational-specific knowledge in the manufacturing sector. Contextualizes skills to prepare students to transition into postsecondary and/or employment. Designed for students assessed at the ASE (GED) reading level. Includes career awareness and intensive supportive services. Carries no transfer credit.

## AED 057 Bridge to Healthcare/Intermediate (4-0) 4 crs.

 Integrates basic listening, speaking, reading, writing and math skills with occupational-specific knowledge in the healthcare sector. Contextualizes skills to prepare students to transition into postsecondary education and/or employment. Designed for students assessed at the ABE (pre-GED) reading level. Includes career awareness and transition supportive services. Carries no transfer credit.AED 059 Bridge to Healthcare/Advanced (4-0) 4 crs. Expands listening, speaking, reading, writing and math skills with occupational-specific knowledge in the healthcare sector. Contextualizes skills to prepare students to transition into postsecondary education and/or employment. Designed for students assessed at the ASE (GED) reading level. Includes career awareness and transition supportive services. Carries no transfer credit.

## AED 061 Adult Employment Skills/Beginning (1-0 to

 4-0)1-4 crs.
Introduces basic employment skills, including on-the-job communication and job search strategies. Introduces vocabulary, listening, speaking, and literacy skills necessary for entry-level jobs in restaurant, hotel, factory/warehouse, office, and other settings. Introduces job search skills such as understanding applications, want ads, components of a resume, and basic job interviews. Promotes awareness of workers' rights, responsibilities, and health and safety issues in the workplace. This course is for English Language Learners (ELLs) with limited formal schooling in their native countries. This is the first in a sequence of three courses. Carries no transfer credit.

## AED 062 Adult Employment Skills/Intermediate (1-0 to

 4-0)1-4 crs.
Develops basic employment skills, including on-the-job communication and job search strategies. Reviews vocabulary, listening, speaking, and literacy skills necessary for entrylevel jobs in restaurant, hotel, factory/warehouse, office, and other settings. Develops job search skills such as networking, describing qualifications, and preparing for basic job interviews. Promotes awareness of workers' rights, responsibilities, and health and safety issues in the workplace. This course is for English Language Learners (ELLs) with limited formal schooling in their native countries. This is the second in a sequence of three courses. Carries no transfer credit.

## AED 063 Adult Employment Skills/Advanced (1-0 to

 4-0)$1-4$ crs. Expands basic employment skills, including on-the-job communication and job search strategies. Develops advanced vocabulary, listening, speaking, and literacy skills necessary for entry-level jobs in restaurant, hotel, factory/warehouse, office, and other settings. Develops advanced job search skills including interest inventories, goal-setting, and more indepth job interviews. Promotes awareness of workers' rights, responsibilities, and health and safety issues in the workplace. This course is for English Language Learners (ELLs) with limited formal schooling in their native countries. This is the third in a sequence of three courses. Carries no transfer credit.

AED 065 Adult Employment Skills (0.5-0 to 3-0) 0.5-3 crs. Examines the world of work and current issues and trends that affect employability. Explores topics such as job/career assessment, individual education/employment plans, employment/ life skills, job search skills, employment documents, interviewing skills, employment practices and personnel programs, job retention skills, and job departure. Carries no transfer credit.

AED 067 Bridge to College and Career Success (2-0) 2 crs. Provides students with an overview of the skills needed to be successful in college career program classes. Emphasizes introductory college success skills such as time management, goal-setting, note-taking and reading strategies while exploring career options. Introduces student services offered at Harper College. Students wanting to enroll in this class must be in the Harper College's AED department GED classes, have a readiness to take the GED exam, and have the recommendation of the program staff. Carries no transfer credit.

## AED 071 Citizenship Preparation/Beginning (1-0 to 4-0) <br> 1-4 crs.

Introduces the very basic structure, functions and purposes of U.S. federal government and aspects of American history and geography pertinent to the naturalization test. Explains the procedures and application for applying for U.S. naturalization. Introduces basic rights and responsibilities of U.S. citizenship. Develops the very basic listening, speaking, and literacy skills necessary for passing the test and interview for U.S. naturalization. Includes a brief introduction of state government. This course is for English Language Learners (ELLs) with limited formal schooling in their native countries. This is the first in a sequence of three courses. Carries no transfer credit.

## AED 072 Citizenship Preparation/Intermediate (1-0 to 4-0)

1-4 crs.
Introduces the basic structure, functions, and purposes of U.S. federal government and aspects of American history and geography pertinent to the naturalization test. Explains the procedures and application for applying for U.S. naturalization. Reviews rights and responsibilities of U.S. citizenship. Develops listening, speaking, and literacy skills necessary for passing the test and interview for U.S. naturalization. Includes a brief introduction of state government, civic duties and community participation. This course is for English Language Learners (ELLs) with limited formal schooling in their native countries. This is the second in a sequence of three courses. Carries no transfer credit.

## AED 073 Citizenship Preparation/Advanced (1-0 to

 4-0)$1-4$ crs.
Introduces and expands upon the basic structure, functions and purposes of U.S. federal government and major aspects of American history and geography. Expands upon the procedures and application for applying for U.S. naturalization. Expands on the rights and responsibilities of U.S. citizenship and promotes awareness of civil rights and the contributions of diverse and multicultural groups in the U.S. Develops advanced vocabulary and reviews listening, speaking, and literacy skills necessary for passing the test and interview for U.S. naturalization. Includes a brief introduction of state government, civic duties, and community participation. This course is for English Language Learners (ELLs) with limited formal schooling in their native countries. This is the third in a sequence of three courses. Carries no transfer credit.

AED 082 Adult Conversation Skills (1-4)
$1-4$ crs.
Develops basic conversation skills, including the ability to start and maintain a conversation, describe personal experiences, and discuss general interest topics. Develops basic communication skills such as greeting, making small talk, and asking for clarification. Introduces more complex conversation skills such as agreeing, disagreeing, and providing examples. Conversation focuses on personal, local, and world issues. Promotes awareness of and builds vocabulary necessary to discuss topics ranging from family and parenting to global, political and environmental issues. This course is for English Language Learners (ELLs) with limited formal schooling in their native countries. Recommended for Nonnative Literacy students enrolled in Levels 2-5. Carries no transfer credit.

## ANT Anthropology

## ANT 101 Introduction to Anthropology (3-0)

Addresses such central questions as "What does it mean to be human?" and "How did we get to be the way we are?" Among the topics to be examined will be human, physical, and cultural evolution; the origin of culture; language; religion; kinship; economics; and the impact of contemporary life on the world's populations. IAI S1 900N

ANT 202 Cultural Anthropology (3-0)
3 crs.
Describes and analyzes how people throughout the world define and resolve the problems of life that are found everywhere. Some of the specific topics studied will be religion, social structure, law, "the unknown," economics and the formation of behavior within particular groups. IAI S1 901N

ANT 203 Native Americans (3-0)
3 crs.
Acquaints the student with our American heritage. There are detailed studies of various Native American groups, both before and after the arrival of the Europeans. The religion, social organization, art work, archaeology, and their relationship to the natural and cultural environment of the Native American is viewed with an appreciation and understanding of non-European cultures. Discussion of possible solutions for some of the problems that confront Native Americans in Western society today is included.

ANT 205 Physical Anthropology (2-2)
3 crs.
Studies the origins and evolution of humans as physical and cultural beings. Includes origin, history, and behavior of primates; fossil records; and the principles of population genetics and their application to study of human variation. IAI S1 902

ANT 206 Archeology (3-0)
3 crs.
Surveys archeological concepts, research, and methods for the study of prehistoric cultures. Includes rise and development of modern civilization, land and land use, agriculture, current archeological investigations, interpretations of finds and introduction to field work techniques. IAI S1 903

## ANT 207 Ancient Civilization of Mexico and Central America

 (3-0)3 crs.
Studies the origin and development of ancient civilizations of Mexico and Central America using historical and archeological evidence. This course will explore the world of the Aztec, Maya, Toltec, and others as seen through architecture, art, food production, politics and religion.

ANT 208 Archeology of the Near East (3-0)
3 crs.
Studies origins and development of civilization of ancient Near East. Includes archeology and cultural history of such countries as Egypt, Mesopotamia and Palestine.
ANT 209 Anthropological Theory (3-0)
3 crs.
Surveys the theoretical origin and development of modern anthropology. Includes examination of works by Benedict, Boas, Dukheim, Khaldun, Malinowski, Mead, Morgan, Tylor, Weber and others.
Prerequisite: ANT 101 or SOC 101 with a grade of C or better.

ANT 210 Cultural Ecology (3-0)
3 crs.
Examines the technologies and behaviors that people have applied to the natural environment to sustain themselves and their societies. Also, the resultant environmental changes will be investigated with emphasis on food production, industrialization, and population increase and their historic and prehistoric impact on our world.

ANT 215 Introduction to Forensic Anthropology (2-2) 3 crs. Studies the field dealing with human skeletal remains resulting from unexplained deaths. Both osteology (bones) and odontology (teeth) will be investigated. Students will learn the techniques involved including: basic human skeletal analysis, preliminary examination methods, burial aspects, distinguishing human from animal remains, identifying the sex of an individual, estimating the age of death, calculating stature, trauma analysis of different types (e.g., blunt, sharp, projectile), as well as various related topics. (NOTE: Although skeletal lab materials will be provided, no soft tissues will be examined.)

## ANT 220 Topics in Anthropology (1-0 to 6-0) 1-6 crs.

 Studies selected problems or topics in social science. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated two times to a maximum of 6 credit hours.ANT 250 Field Methods in Archeology I (1-4) 3 crs. Provides intensive introduction to the methods and techniques of archeological survey and excavation through practical fieldwork, accompanied by lecture and discussion. The student will participate in laboratory analysis of materials excavated within the Midwest. (NOTE: This course is taught only at an archeological site during the summer.)
Prerequisite: ANT 101 with a grade of C or better and/or consent of instructor.

## ANT 255 Field Methods in Archeology II (1-4)

3 crs.
Designed for students who have had previous field school experience at the introductory level. This is an intensive course in advanced field methods in archeology. In addition to the continued pursuit of excavation procedures and techniques, the student will be concerned with some of the theoretical and interpretative aspects of archeological analysis. NOTE: This course is taught only at an archeological site during the summer.
Prerequisite: ANT 101 and ANT 250 with grades of C or better and/or consent of instructor.

## ARC Architectural Studies

ARC 105 Presentation and Communication Tools (2-2) 3 crs. Introduces various communication and presentation tools commonly used throughout the field of architecture. Covers the fundamentals of hand drafting and lettering as well as industrywide drafting standards; computer presentation techniques using various software titles after a CAD drawing has been prepared; three-dimensional building models, materials and techniques; and media, methods and techniques for various types of architectural rendering.

## ARC 106 Introduction to Architecture and Drawing

 Fundamentals (3-4)4 crs.
Introduces the profession of architecture as well as the technical procedures for creating typical drawing types. Covers the role of the architect and other professionals within the AEC industry as well as architectural education. Manual drafting techniques are used to create standard drawings including plans, sections, elevations and perspectives. Design development-level drawings are based on framed residential and light commercial building types.

ARC 110 Architectural Design Principles (2-6)
4 crs.
Develops methods and strategies to apply design principles to fundamental architectural problems. Employment of 2- and 3-dimensional exercises to explore concepts of mass, space, and structure, as well as principles such as proportion, rhythm, scale, symmetry and procession. Exercises will be designed to promote an understanding of the process of concept formation and application.
Prerequisite: ART 121 with a grade of C or better, or consent of instructor.

ARC 113 Building Materials I (3-3)
4 crs.
Introduces masonry, wood and non-fireproofed steel construction for one- and two-story buildings. Concrete foundation and footing details, wall and building sections are covered as well as construction details.

ARC 116 Architectural CAD I (2-2)
Introduces computer hardware and state-of-the-art software as applied to applications in architecture, interior design and other related fields. Develops understanding of basic parameters for design and drafting technologies: entity creating and editing, printing and plotting, and file/data management. Projects are correlated primarily to architectural design issues.
ARC 117 Architectural CAD II (2-2)
3 crs.
Covers advanced CAD techniques and procedures developed in two-dimensional architectural drafting and detailing. Develops a working knowledge and understanding of command structures, detailed data management and manipulation techniques, and software customization procedures. Projects are correlated primarily to architectural construction, drafting and detailing issues.
Prerequisite: ARC 116 with a grade of C or better, or consent of instructor.

ARC 122 Principles of Green Design (3-0) 3 crs. Covers aspects of building construction relating to sustainable or "green" design which can include material selection, detailing, energy and water conservation, lifecycle, environmental impact of choices of building materials or location. This class will also explore the LEED rating system.

ARC 125 Chicago's Architectural History (3-0) 3 crs. Introduces an historical survey of culture and technology impact on Chicago's architecture. Emphasizes ideas and trends in modern building originating with the balloon frame and continuing through to the skyscraper.
ARC 200 Architectural Internship (1-15)
Credits those students meeting the rigorous requirements of working in an approved architecture or construction-related position. Periodic meetings with the faculty advisor will discuss such items as workplace etiquette, appropriate workplace attire, etc. Students must make an oral presentation at the completion of the internship to receive credit.
Prerequisite: Success completion of all first-year courses as indicated in the current college catalog for the architecture program, 3.0 cumulative GPA or better for all Harper classes, 3.75 cumulative GPA for all ARC classes, and consent of coordinator.

ARC 201 Architectural Design Studio I (2-6)
4 crs.
Applies and advances design principles and processes gained in ARC 110. Studio projects representing practical architectural problems are assigned. These incorporate multiple issues and principles as well as site, user and context parameters. Project solutions will be documented with accurate drawings and possibly models.
Prerequisite: ARC 110 with a grade of C or better, or consent of instructor.

ARC 202 Architectural Design Studio II (2-6)
4 crs.
Applies and advances architectural design principles and processes gained in ARC 201 on larger, more complex project types. Studio projects representing advanced architectural problems are assigned. These incorporate multiple issues and principles as well as site, user and context parameters. Project solutions will be documented with accurate drawings and models. Prerequisite: ARC 201 with a grade of $C$ or better, or consent of instructor.

## ARC 213 Building Materials II (2-4)

4 crs.
Develops construction strategies of multi-storied steel and concrete commercial and residential buildings. Covers stairs, elevators, and toilet room layouts. Reviews fire-resistive construction technologies, window walls, ceiling grids, lighting, partition details, mechanical and electrical requirements. Prerequisite: ARC 113 with a grade of C or better, or consent of instructor.

## ARC 220 Introduction to Revit Software and Object CAD (2-2)

 3 crs.Introduces architectural document preparation techniques via advanced computer software systems. Covers the transition from graphical representations found in standard CAD packages to the mass-model concept found in an object-based CAD package and ultimately to an integrated Building Information Modeling approach.

## ARC 223 History of Architecture (3-0)

3 crs.
Surveys architecture from prehistorical times through the Renaissance, including Western and non-Western cultures. Stylistic and technological developments of architecture are studied in relationship to the cultural diversity of social, political and religious contexts and historical periods.

ARC 236 Structural Fundamentals (4-0)
4 crs.
Introduces architectural statics and covers concepts of force systems in equilibrium: parallel forces, perpendicular forces, analysis of concentrated and distributed loads in live and deadload applications resulting in tension and compression members, and members subjected to combined forces. The class will introduce strength of materials. It will apply principles of design analysis to steel, concrete and wood construction materials in slab, beam, column, and foundation configurations.

## ART Art

ART 100 Art Seminar (1-0)
1 cr.
Introduces art majors to the opportunities, concerns and the problems that relate to the artist. This course may be repeated up to two hours credit.

## ART 105 Intro to Visual Art (3-0) 3 crs.

Introduces the visual arts with an emphasis on creating awareness of aesthetics, artistic concepts, media, theory and criticism. In addition, students will develop a critical understanding of art and build visual literacy. IAI F2 900

ART 110 Drawing I (0-6)
3 crs.
Introduces students to descriptive and expressive approaches to drawing with black and white media. Line work, shading, perspective and experimental techniques are practiced. Students learn to accurately depict everyday objects and surroundings, and to develop an awareness of drawing as a creative process.

ART 111 Drawing II (0-6)
3 crs.
Builds on the content of ART 110 (Drawing I) with applications beyond observation-based approaches. Emphasizes intent, idea development and use of colored media.
Prerequisite: ART 110 with a grade of C or better, or consent of instructor.

ART 114 Introduction to Film (2-2)
3 crs.
Examines the different ways of looking at film to improve understanding and appreciation of the medium as an art form. Includes critical analysis of different directors, film genres, historical trends and lecture about the technique and process of filmmaking. Between 10 and 15 films will be examined. IAI F2 908

## ART 121 Design I (0-6)

3 crs.
Introduces students to skills fundamental to two-dimensional visual organization. Explores elements such as line, shape and color, and principles such as unity, balance and variation. Provides a foundation for all areas of art and design.

ART 122 Design II (0-6) 3 crs.
Introduces students to skills fundamental to three-dimensional visual organization. Explores elements such as form, space, and process and principles such as unity, balance and variation. Provides a foundation for all areas of three-dimensional art and design.
Prerequisite: ART 121 with a grade of C or better, or consent of instructor.

ART 130 Ancient and Medieval Art (3-0)
3 crs.
Follows the historical development of the visual arts produced by Western civilizations, focusing on major artistic styles, works of art and monuments. Works are examined as expressions of the ideas, beliefs and practices of artists, cultures and societies. Covers the history of art from pre-history to the medieval age. IAI F2 901

ART 131 Gothic Through Romantic Art (3-0) 3 crs.
Follows the historical development of the visual arts produced by Western civilizations, focusing on major artistic styles, works of art and monuments. Works are examined as expressions of the ideas, beliefs and practices of artists, cultures and societies. Covers the history of art from the medieval age to the end of the eighteenth century. IAI F2 902

ART 132 Modern and Contemporary Art (3-0) 3 crs.
Follows the historical development of the visual arts produced by Western civilizations, focusing on major artistic styles, works of art and monuments. Works are examined as expressions of the ideas, beliefs and practices of artists, cultures and societies. Covers the history of art from the nineteenth-century to the present time. IAI F2 902

ART 133 Non-Western Art (3-0) 3 crs.
Follows the historical development of the visual arts produced by non-western civilizations, focusing on major artistic styles, works of art and monuments. Works are examined as expressions of the ideas, beliefs and practices of artists, cultures and societies. Covers the history of art of Africa, China, India, Japan, Middle East, Oceania, and the Americas. IAI F2 903N

ART 150 Digital Art Studio (0-0 to 0-6)
0-3 crs.
Presents a digital-based multimedia approach to making art. Computer hardware, software, mobile devices and web-based applications are employed to capture, manufacture and network images and ideas.

ART 151 Digital Photography Studio (0-0 to 0-6) 0-3 crs.
Employs digital technology as a medium for producing works of photographic art. Basic techniques and processes for using a digital still camera, image editing software and archival print technology are used to investigate straight photography as well as highly manipulated images.
ART 201 Drawing Studio (0-6)
3 crs.
Emphasizes drawing as visual ideas. May be repeated up to six hours credit.
Prerequisite: ART 111 with a grade of C or better, or consent of instructor.

## ART 206 Printmaking Studio (0-6)

3 crs.
Emphasizes traditional and contemporary methods of graphic reproduction of visual ideas pertaining to the fine arts. May be repeated up to six hours credit.
Prerequisite: ART 111 and ART 121 with grades of C or better, or consent of instructor.

## ART 225 Figure Drawing Studio (0-6)

3 crs.
Emphasizes drawing the human figure in action and from still poses. Rapid sketching, long poses, memory work, studio and lecture. May be repeated up to six hours credit.
Prerequisite: ART 111 with a grade of C or better, or consent of instructor.

## ART 236 Composition (0-6)

3 crs.
Emphasizes pictorial composition in line, value, pattern and color. May be repeated up to six hours credit.
Prerequisite: ART 111 and ART 121 with grades of C or better.

## ART 261 Painting Studio (0-6)

3 crs.
Emphasizes the relationship between painting and visual ideas.
May be repeated up to six hours credit.
Prerequisite: ART 111 and ART 121 with a grade of "C" or better, or consent of instructor.

ART 280 Topics in Art History (1-0 to 6-0)
1-6 crs.
Studies selected topics or debates in art history. The exact content and instructional methodology will vary semester to semester depending on the material studied. A syllabus or course outline containing additional information will be available with preregistration materials each time that the course is offered. This course may be repeated two times to a maximum of six credit hours.

## ART 281 Topics in Studio Art (0-6)

3 crs.
Explores selected practices in studio art. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A topic-specific syllabus containing additional information will be available in the Liberal Arts Division Office with other pre-registration materials each time that the course is offered. This course may be repeated to a maximum of 6 credit hours.
Prerequisite: ART111 and ART 122 with grades of C or better, or consent of instructor.

ART 291 Ceramics Studio (0-6)
3 crs.
Emphasizes the exploration of ceramic media as related to the expression of visual ideas. May be repeated up to six hours credit. Prerequisite: ART 122 with a grade of C or better, or consent of instructor.

## ART 296 Sculpture Studio (0-6)

3 crs.
Emphasizes the exploration of sculptural media as related to visual ideas. May be repeated up to six hours credit.
Prerequisite: ART 122 with a grade of C or better, or consent of instructor.

## AST Astronomy

AST 100 Astronomy Survey (3-0)
3 crs.
Introduces the main concepts of contemporary astronomy using a scientific approach. Topics include the scientific method, the celestial sphere, celestial motions, gravity, light, telescopes, the Solar System, stars, the interstellar medium, galaxies, and cosmology. Current research in the different areas will be discussed. Knowledge of high school algebra is assumed. For science and non-science majors. IAI P1 906

AST 101 Introductory Astronomy (3-2)
4 crs. Introduces the various topics of astronomy using a scientific approach. Covers the origin of the universe, structure and composition of galaxies, properties and life cycle of stars, the solar system, historical astronomy, constellations, meteors, and comets. Knowledge of high school algebra is assumed. IAI P1 906L

AST 112 The Solar System (3-2)
4 crs.
Introduces the main concepts of solar system astronomy. Topics include the fundamentals of astronomy, planetary motion, the Earth, the Moon, terrestrial planets, Jovian planets, small bodies in the solar system, the Sun, the formation of the solar system, other planetary systems, and the possibility of extraterrestrial life. Current research in the different areas will be discussed. Knowledge of high school algebra is assumed. For science and non-science majors. IAI P1 906L

AST 115 Stars and Galaxies (3-2)
4 crs.
Introduces the main concepts of stellar, galactic, and extragalactic astronomy. Topics include life cycles of stars, supernovae, black holes, interstellar medium, structure of the Milky Way galaxy, galaxy classification, galaxy interactions, dark matter, dark energy and the Big Bang model. Current research in the different areas will be discussed. Knowledge of high school algebra is assumed. For science and non-science majors. IAI P1 906L

## AST 150 Observational Techniques (1-2) <br> 2 crs.

Introduces students to telescopes and astronomical imaging devices. Includes properties and usage of telescopes, types of imaging devices, such as cameras and CCDs, methods of astronomical observations, and astrophotography. This class is only offered at night. For science and non-science majors. Prerequisite: AST 100, AST 112 or AST 115 with a grade of C or better, or consent of instructor.

AST 201 Advanced Astronomy (3-2)
4 crs.
Extends topics in stellar and galactic astronomy using a mathematical approach. Covers stellar magnitudes, HertzsprungRussell Diagram, stellar formation, the interstellar medium, MassLuminosity Relationship, element synthesis, active galaxies and quasars. Laboratory experiences will quantitatively address these topics.
Prerequisite: AST 101 and MTH 080 or higher (or required math placement exam score) with grades of C or better.

## BCE Building Codes and Enforcement

BCE 101 Basic Construction for Building Codes (3-0) 3 crs. Introduces materials used in building construction, their growth or manufacture, preparation and application. Emphasizes frame and masonry construction types, working drawings and structural details for code compliance.

BCE 102 Basic Code Enforcement Techniques (3-0) 3 crs. Introduces building inspection principles. Includes application of building codes to structures in the inspection process. Covers application of zoning restrictions and regulations, code interpretation using reference documents, components of field inspection and report requirements. Emphasizes plan and specification review, permit processes and issuance, legal ramifications in inspection law.

## BCE 104 Basic Mechanical and Energy Conservation Codes (3-0) 3 crs.

Introduces the theory and code requirements for mechanical and energy conservation systems. Covers procedures, layouts and safety principles for heating, cooling and ventilation systems; application of HVAC code requirements for residential units (up to six dwelling units) and light commercial buildings. Includes application of energy conservation code requirements to principles of building inspection and identification of components in heating, ventilating and air conditioning systems to discern code violations.

## BCE 105 Basic Plumbing Codes (3-0)

3 crs.
Introduces basic theory and code requirements for plumbing systems and their installation. Concentrates on procedures, practices and layouts, and code inspection problems for residential, commercial and industrial installations.

BCE 106 Basic Electrical Codes (3-0)
Introduces basic theory and code requirements for electrical systems and their installation. Concentrates on procedures, practices and layouts, and code inspection problems for residential, commercial and industrial installations.

BCE 201 Basic Building Codes (3-0)
Covers the latest edition of the International Building Code. Explains its use, intent, rationale and interpretation. Includes enforcement and administration, liability, plan review and permit process definitions, use groups, types of construction, general building limits, special uses, means of egress, materials and tests, fire resistive construction, mechanical equipment and systems, fire protection systems, electric wiring and equipment, elevators, plumbing systems and use of reference standards.

## BCE 202 International Fire Codes (3-0) <br> 3 crs.

Introduces up-to-date international fire codes, addressing conditions hazardous to life and property from fire, explosion, handling of hazardous materials and the use of occupancy of building and premises. Emphasizes model code regulations that safeguard the public health and safety in all communities both large and small.

BCE 203 National Green Building Code Standards (3-0) 3 crs. Introduces current practices for the design and construction of green buildings that will create a positive impact on the environment, establishing specific conformance criteria, innovative approaches, and techniques intended to enhance sustainability in safety, health and the environment. Emphasizes understanding and applying green building code practices and standards as established by the international Code Council and the United States Environmental Protection Agency.

## BIO Biology

BIO 101 Biology Survey (3-0)
3 crs.
Surveys the science of biology, emphasizing the human organism. Includes chemical and physical properties, physiological systems of control, growth, differentiation, reproduction, genetics, ecology, evolution and ethical considerations. Also includes a broader overview of the plant and animal kingdoms and humans' place in, and interactions with, those kingdoms. (NOTE: Not Lab science credit.) IAI L1 900

BIO 103 Man and Environment (3-0)
3 crs.
Surveys and analyzes man's role as an environmental modifier. Ecological, social cultural, economic and political influences on environment are considered. The historical and current pollution problems and other environmental disruptions are analyzed and evaluated. Possible remedial courses of action are discussed and evaluated.(NOTE: Not Lab science credit.) IAI L1 905

BIO 104 Environmental Laboratory Biology (2-4) 4 crs.
Examines and analyzes the parameters of the biosphere as a biological support system and the implications of natural and human caused changes in that support system. An examination of biosphere (natural world) and industriosphere (technological world) interactions is included.(NOTE: Lab science credit.) IAI L1 905L

BIO 105 Heredity, Evolution and Society (3-0)
3 crs.
Examines life and the evolutionary record with emphasis on human genetics and inheritance. Factors such as current applications of biotechnology and its ethical, political and social implications in the 21st century are considered. (NOTE: Not Lab science credit.) IAI L1 906
BIO 110 Principles of Biology (3-3)
4 crs.
Studies and emphasizes cell structure and function by exploring the various patterns that have evolved within cells for carrying out important life functions. This includes cell ultra structure, cell surface-volume relationships, cellular metabolism and energetics, mitosis and meiosis, genetics, DNA, RNA and protein synthesis, gene action, population genetics, development and environment. Knowledge of high school biology is assumed.(NOTE: Lab science credit.) IAI L1 900L, IAI BIO 910

BIO 120 General Botany (3-3)
4 crs.
Emphasizes scientific inquiry through selected concepts in biology, such as organization, function, heredity, diversity, evolution and ecology, using plants as the type of organism. Topics include plant structure, diversity, growth, genetics, evolution, physiology and reproduction. Economic, cultural, environmental and medical relationships between plants and humans are emphasized. Knowledge of high school biology is assumed.(NOTE: Lab science credit.) IAI L1 901L, IAI BIO 910

BIO 130 Microbiology (2-4) 4 crs.
Examines characteristics and importance of microorganisms; emphasis on identification, anatomy and physiology, control, relationship to health and disease and economic importance. College chemistry or equivalent is desirable. Strongly recommended preparation: One year of high school biology with a grade of C or better taken within the last five years, or BIO 110. (NOTE: Lab science credit.)
Prerequisite: Required reading placement test scores: Compass Reading 77 or ACT Reading 20.
BIO 135 Introduction to Human Anatomy and Physiology
(4-0) (4-0)
Surveys the human body, with emphasis on basic physical and chemical concepts, anatomy, physiology and embryology. Designed to meet the needs of students in certain allied health career programs. Knowledge of high school biology is assumed. (NOTE: Not Lab science credit.)

BIO 136 Introduction to Human Disease (3-0)
Surveys the nature of human disease with emphasis on the functional disturbances within the body systems. Designed to meet the needs of students in certain allied health career programs. Knowledge of high school biology assumed.(NOTE: Not Lab science credit.) IAI L1 904

BIO 140 General Zoology (3-3)
4 crs.
Emphasizes scientific inquiry through selected concepts in animal biology. Surveys the animal kingdom based on theory of organic evolution, including morphology, histology, physiology, taxonomy, parasitology, embryology and ecology. Economic, environmental and medical relationships between animals and humans are emphasized. Knowledge of high school biology is assumed. (NOTE: Lab science credit.) IAI L1 902L, IAI BIO 910

BIO 150 Field Biology (2-4) 4 crs.
Emphasizes field and laboratory work with soils, flora, fauna, their identification, ecological relationships and human impact upon ecosystems. Assists students in acquiring basic working knowledge in biological field work. Students should expect field work or a field trip every class day, weather permitting. Field trips may be to local, regional or international locations which may vary from year to year. (See specific section for field trip focus.) Classes are held on campus prior to the off-campus learning experience as scheduled. Travel expenses are paid for by the student. This course may be repeated up to a maximum of 8 credit hours if field trip focus is different. Knowledge of high school biology is assumed; permission to register required. (NOTE: Lab science credit.) IAI L1 905L

## BIO 160 Human Anatomy (3-2)

4 crs. Introduces the anatomy of the human body; the following systems studied either regionally or systemically: integumentary, skeletal, articular, muscular, circulatory, lymphatic, nervous, respiratory, digestive, excretory, endocrine and reproductive. Includes some introductory histology. Specially designed for students in health careers, biology, and physical education. Strongly recommended preparation: One year of high school biology with a grade of C or better taken within the last five years, or BIO 110.(NOTE: Lab science credit.) IAI L1 904L
Prerequisite: Required reading placement test scores: Compass Reading 77 or ACT Reading 20.

BIO 161 Human Physiology (3-2) 4 crs.
Emphasizes physiological principles at the molecular, cellular, tissue, organ and system level, as they pertain to the human organism. The following systems are studied in detail: skeletal, muscular, circulatory, nervous, digestive, respiratory, urinary, reproductive and endocrine. In this course, special applications will be made to meet the needs of students in health careers, biology and physical education.(NOTE: Lab science credit.) Prerequisite: BIO 160 with a grade of C or better, or consent of instructor.

## CAS Computer Applications Software

CAS 105 Word Processing Software (0.5-1)
1 cr.
Provides an opportunity to become proficient in the use of a currently popular word processing package. Includes editing, formatting, creating tables and outlines and merging data.

CAS 110 Microsoft Word Certification (0.5-1) 1 cr. Continues development of Word skills and focuses on the review of these skills in preparation for a current Microsoft Office Word certification exam. Recommended preparation: CAS 105 or equivalent experience.
CAS 115 Spreadsheet Software (0.5-1)
Provides an opportunity to become proficient in the use of a currently popular spreadsheet package. Includes creating, editing and formatting worksheets; working with formulas, functions and charts.

## CAS 120 Microsoft Excel Certification (0.5-1) 1 cr.

Continues development of Excel skills and focuses on the review of these skills in preparation for a current Microsoft Office Excel certification exam. Recommended preparation: CAS 115 or equivalent experience.

CAS 125 Database Software (0.5-1) 1 cr. Provides an opportunity to become proficient in the use of a currently popular database package. Includes creating databases, tables and table relationships, maintaining an querying databases, and creating forms and reports.

CAS 130 Microsoft Access Certification (0.5-1)
1 cr.
Continues development of Access skills and focuses on the review of these skills in preparation for a current Microsoft Office Access certification exam. Recommended preparation: CAS 125 or equivalent experience.

CAS 135 Presentation Software (0.5-1)
Provides an opportunity to become proficient in the use of a currently popular business presentation package. Includes editing, formatting, themes, slide masters and presentation effects.
CAS 140 Microsoft PowerPoint Certification (0.5-1) 1 cr Continues development of PowerPoint skills and focuses on the review of these skills in preparation for a current Microsoft Office PowerPoint certification exam. Recommended preparation: CAS 135 or equivalent experience.

CAS 150 Microsoft Outlook Certification (0.5-1) 1 cr. Continues development of Outlook skills and focuses on the review of these skills in preparation for a current Microsoft Office Outlook certification exam. Recommended preparation: WEB 101 or equivalent experience.

## CAS 160 Introduction to Business Software Packages

 (2-2)3 crs.
Provides an opportunity to become proficient in the use of currently popular software packages or suites. Includes word processing, spreadsheets, databases, presentation software and the integration of these applications.

CAS 175 Desktop Publishing Software (0.5-1)
1 cr.
Provides an opportunity to become proficient in the use of a currently popular desktop publishing software package. Includes editing, formatting, page layout creating newsletters and brochures.

CAS 205 Advanced Word Processing Software (0.5-1) 1 cr . Provides an opportunity to become proficient in the use of a currently popular advanced word processing package. Includes document sharing, advanced content formatting, references, mail merge, forms and macros.
Prerequisite: CAS 105 or CAS 160 with a grade of $C$ or better.
CAS 215 Advanced Spreadsheet Software (0.5-1) 1 cr.
Provides an opportunity to become proficient in the use of a currently popular advanced spreadsheet package. Includes workbook sharing, advanced content formatting, data importing, filtering, charting, pivot tables, forms and macros.
Prerequisite: CAS 115 or CAS 160 with a grade of C or better.
CAS 226 Database Programming (2-2)
3 crs.
Uses the command language from a currently popular data base package for computers. A set of business-oriented programs will be developed making extensive use of the command language. Recommended preparation: CAS 125 or CAS 160 or equivalent experience.

CAS 260 Office Application Development (2-2) 3 crs.
Provides students with an opportunity to build productivity applications using a currently popular applications suite and macro language. Advanced word processing, spreadsheet, and database features are included, with a focus on integrating applications and automating everyday tasks.
Prerequisite: CAS 160 with a grade of C or better and math placement in MTH 101 or higher.

## CDV Career Development

CDV 110 Career Development (2-0)
2 crs.
Provides the opportunity to explore career interests, experiences, skills, abilities and work related values. Examines information about the world of work including the nature of various careers, labor market trends, job search strategies, education and training requirements and diversity in the workplace. Information will be integrated so students will be able to develop educational and career goals.

## CGT Cardiographic Technician

CGT 101 Electrocardiography I (0-0 to 1.5-1)
0-2 crs.
Provides instruction and practice in the performance and comprehensive interpretation of rhythm ECGs. Includes instruction in holter monitoring.
Prerequisite: BIO 135 or ( BIO 160 and BIO 161 ) with grades of C or better.

## CGT 102 Electrocardiography II (0-0 to 1.5-1)

0-2 crs.
Provides instruction and practice in the performance and comprehensive interpretation of 12 lead ECGs. Includes instruction in maximal stress testing.
Prerequisite: CGT 101 with a grade of C or better
CGT 204 Cardiovascular Principles (0-0 to 3-0) 0-3 crs. Examines important cardiovascular principles. Reviews cardiac anatomy, physiology and pharmacology. Explores cardiac embryology, cardiac hemodynamic principles, and coronary artery disease. Provides an overview of clinical cardiology.
Prerequisite: BIO 135 or (BIO 160 and BIO 161) with grades of $C$ or better.

## CHM Chemistry

CHM 100 Chemistry for the Health Sciences (3-3) 4 crs. Introduces basic concepts of inorganic and organic chemistry and biochemistry. Emphasizes chemical principles applied to biological systems. Laboratory exercises apply theory to biological and consumer products. Especially designed for students in allied health sciences. Meets the prerequisite of the Nursing program. IAI P1 902L

CHM 103 The Chemistry Connection (3-3)
4 crs.
Introduces chemical principles to illustrate the significance of chemistry in the world today. Practical applications and current issues related to general chemistry, organic chemistry and biochemical topics will be integrated with chemical concepts. Recommended for non-science majors. IAI P1 903L

CHM 105 Chemical World (3-3) 4 crs.
Relates biological and physical systems to chemistry. Focuses on four major themes: the sociology of science, chemical composition and change, the chemistry of life, chemistry and society. Corresponding laboratory is inquiry based. Designed to provide a higher level of scientific literacy to non-science majors and to provide elementary education majors, in particular, with the content knowledge and disposition about science that is necessary in order to be able to teach science in engaging and meaningful ways to their students. Aligned with State of Illinois teacher preparation standards. IAI P1 902L
Prerequisite: MTH 080 or higher (or required math placement exam score) with a grade of C or better, or concurrent enrollment.

CHM 110 Fundamentals of Chemistry (3-3)
4 crs.
Introduces concepts of chemistry. Emphasizes the composition of matter, the periodic table, the chemistry of solutions and chemical calculations. The laboratory experiments utilize many common household materials to demonstrate applications of chemical concepts. For students whose preparation does not permit enrollment in CHM 121. IAI P1 902L
Prerequisite: MTH 080 or higher (or required math placement exam score) with a grade of C or better, or concurrent enrollment.
CHM 121 General Chemistry I (4-3)
Studies principles of atomic and molecular structure, bonding, stoichiometry, states of matter, kinetic molecular theory, and solutions. Corresponding laboratory experiments include volumetric and gravimetric analyses, a qualitative study of reactions, visible spectrophotometry, and problem-based analyses. Intended for all students whose majors require general chemistry, including science majors and pre-professionals. The course also satisfies a general education laboratory science requirement for students with previous chemistry experience. IAI P1 902L, IAI CHM 911
Prerequisite: (Two semesters of high school chemistry or CHM 110 with a grade of C or better) AND (MTH 080 or higher with a grade of C or better, or required MTH 103 placement test score.)

CHM 122 General Chemistry II (4-3)
5 crs.
Continues CHM 121 as the second semester of a general chemistry sequence intended for all students whose major requires a full year of general chemistry, including science majors and pre-professionals. Includes the principles of chemical kinetics, equilibrium, acid-base reactions, electrochemistry, and thermodynamics. Also introduces topics in organic, nuclear, transition metal, and descriptive chemistry. Laboratory includes experiments related to the lecture material. IAI CHM 912 Prerequisite: CHM 121 with a grade of C or better, or consent of instructor.

## CHM 125 Organic and Biochemistry for the Health Sciences

 (3-3)4 crs.
Introduces principles and health applications of organic chemistry and biochemistry. Studies the structure, nomenclature and reactions of organic compounds. Also studies carbohydrates, lipids, proteins, enzymes, nucleic acids, metabolic pathways and bioenergetics. Includes related laboratory exercises. Intended for students in the allied health sciences but open to all non-physical science majors.
Prerequisite: CHM 110 or CHM 121 with a grade of C or better.
CHM 201 Basic Organic Chemistry (3-3)
4 crs.
Surveys topics of organic chemistry covering nomenclature, structure, reactions and synthesis of the major classes of organic compounds, including hydrocarbons, alcohols, aldehydes, ketones, carboxylic acids and amines. The laboratory includes experiments in distillation, crystallization, chromatography, extraction, synthesis and analysis.
Prerequisite: CHM 100, CHM 110, or CHM 121 with a grade of C or better, or consent of instructor.

CHM 204 Organic Chemistry I (3-6)
5 crs.
Applies modern theories of electronic structures to the study of chemical and physical properties of alkanes, alkenes, alkynes, and alkyl halides. Students also study reaction mechanisms and stereochemistry as they apply to the above classes of organic compounds. Laboratory includes syntheses, qualitative organic analyses, IR and visible spectrophotometry, gas chromatography, thin layer chromatography, HPLC, polarimetry, and refractometry. Intended primarily for science majors and pre-professionals. IAI CHM 913
Prerequisite: CHM 122 with a grade of C or better, or consent of instructor.

CHM 205 Organic Chemistry II (3-6)
Continues CHM 204 with further study of nomenclature, stereochemistry, reactions, and mechanisms of the following functional groups: conjugated dienes, aromatics, alcohols, ethers, aldehydes, ketones, carboxylic acids and their derivatives, and nitrogen containing compounds. Laboratory includes syntheses, qualitative organic analyses, NMR, IR and UVVis spectrophotometry, gas chromatography, thin layer chromatography, HPLC, polarimetry, and refractometry. Intended primarily for science majors and pre-professionals. IAI CHM 914 Prerequisite: CHM 204 with a grade of C or better.
CHM 210 Quantitative Analysis (3-6) 5 crs. Introduces theory and applications of sampling and quantitative chemical analysis with a focus on acid-base equilibria, complexation, extraction and chromatography, solubility, precipitation, redox reactions, and activity. Considerable emphasis is placed on extended equilibrium concepts and the fundamentals of spectroscopy. Laboratory experiments are related to lecture topics; they emphasize experimental precision and accuracy and include spreadsheet-based computer calculations.
Prerequisite: CHM 122 or equivalent with a grade of C or better.

## CHM 220 Biochemistry (3-3)

4 crs.
Introduces the chemical and physical properties of all classes of biological molecules and their assemblies including small molecules, macromolecules, and processes found in living organisms. Includes structures of amino acids, nucleotides, lipids, and sugars, as well as their corresponding macromolecular structures, i.e., proteins, nucleic acids, membranes, and polysaccharides as related to their biological functions; kinetics and mechanism of enzymatic reactions, the central metabolic pathways, and the genetic code. Introduces current biochemical techniques and the proper use of laboratory tools and equipment utilized in a biochemistry lab.
Prerequisite: CHM 201 or CHM 205 with a grade of "C" or better or consent of the instructor.

## CHM 295 Independent Research in Chemistry I (0-3 to

 0-9)1-3 crs.
Provides experimental exploration of an authentic scientific research topic under the supervision of a faculty member. This laboratory course is designed to teach the principles and practice of modern experimental chemistry. Before registering, students must submit to the Chemistry Department a contract with the instructor for accomplishing a defined research task. Credit is contingent on the submission of a final report.
Prerequisite: CHM 121 with a grade C or better, prior consultation with instructor, completed contract, and consent of the department chair.

## CHM 296 Independent Research in Chemistry II (0-3 to 0-9)

$1-3 \mathrm{crs}$.
Provides additional opportunity for students to do experimental exploration of an authentic scientific research topic under the supervision of a faculty member. This laboratory course is designed to give students more time to work on a research project. Before registering, students must submit to the Chemistry Department a contract with the instructor for accomplishing a defined research task. Credit is contingent on the submission of a final report.
Prerequisite: CHM 295 with a grade B or better, prior consultation with instructor, completed contract and consent of the department chair.

5 crs. CHM 297 Independent Research in Chemistry III (0-0 to 3-9)
$1-3 \mathrm{crs}$.
Provides additional opportunity for students to do experimental exploration of an authentic scientific research topic under the supervision of a faculty member. This laboratory course is designed to give students more time to work on a research project. Before registering, students must submit to the Chemistry Department a contract with the instructor for accomplishing a defined research task. Credit is contingent on the submission of a final report.
Prerequisite: CHM 296 with a grade B or better, prior consultation with instructor, completed contract, and consent of the department chair.

## CHN Chinese

CHN 101 Elementary Chinese I (4-0)
4 crs.
Develops the basic knowledge of Mandarin Chinese and the Chinese culture. A communicative approach is used to engage students in activities to practice listening, speaking, reading and writing skills. This course is the first of a two-course sequence designed for students with no prior knowledge of spoken or written Chinese.

CHN 102 Elementary Chinese II (4-0) 4 crs.
Continues to develop the basic knowledge of Mandarin Chinese and the Chinese culture. Uses a communicative approach to engage students in activities to practice listening, speaking, reading and writing skills. This course is the second of a twocourse sequence designed for students with no prior knowledge of spoken or written Chinese.
Prerequisite: CHN 101 with a grade of C or better, or consent of instructor.

CHN 201 Intermediate Chinese I (4-0) 4 crs.
Continues to develop communicative skills and knowledge of the Chinese language and culture. Uses a communicative approach to engage students in the activities to practice listening, speaking, reading and writing skills. This course is the first of a two-semester sequence of the second-year Mandarin Chinese program.
Prerequisite: CHN 102 or equivalent.
CHN 202 Intermediate Chinese II (4-0)
4 crs.
Further develops communicative skills and knowledge of the Chinese language and culture. Uses a communicative approach to engage students in the activities to practice listening, speaking, reading and writing skills. This course is the second of a twosemester sequence of the second-year Mandarin Chinese program. IAI H1 900
Prerequisite: CHN 201 or equivalent

## CIS Computer Information Systems

CIS 100 Computer Fundamentals (2-2)
Provides students with an introduction to computers in society and digital literacy. Includes computer hardware and operating systems, word processing, spreadsheets, presentation software, networking, Internet usage, communication and collaboration, computer safety and ethics. This course is not intended for computer information system majors.

CIS 101 Introduction to Computer Information Systems (2-2)

3 crs.
Provides students with an introduction to computer and information systems used in business environments. Includes computer hardware and operating systems, word processing, spreadsheets, presentation software, database management software, networking and Internet, information systems, programming concepts, and computer security and ethics. IAI BUS 902

## CIS 106 Computer Logic and Programming Technology (2-2)

3 crs.
Familiarizes the student with the necessary tools to design efficiently the steps in a business computer program. Introduces object-oriented programming with an appropriate programming language. Requires the students to code and debug their own sample cases. Also teaches documentation, problem analysis, structured programming logic, decision tables, and table utilization.
Prerequisite: Math placement in MTH 101 or higher.
CIS 137 Computer Internship I (1-15) 3 crs.
Provides students with coordinated job experience in an information technology professional position such as computer networking or Web design. This course is repeatable up to a maximum of six credit hours. The one lecture hour per week will involve a seminar regarding technology issues.
Prerequisite: Minimum of six credit hours of CIS courses with a GPA of 2.5 or better. Consent of program coordinator and internship instructor.

CIS 143 Introduction to Database Systems (2-2) 3 crs. Provides students with a comprehensive introduction to database concepts. Primary focus is on the relational model of database management and querying databases using Structured Query Language (SQL). Existing relational databases are examined and manipulated, and new relational databases are created.
Prerequisite: CAS 160 with a grade of C or better and math placement in MTH 101 or higher.

## CIS 168 Java Software Development I (3-2) 4 crs.

 Introduces students to the Java programming language and its object-oriented (OO) approach for developing platform independent applications. Students will learn how to develop basic Java applications, including object-oriented programming, event handling, and Graphical User Interface (GUI) using the Java Swing library.Prerequisite: CIS 106 with a grade of C or better, or consent of instructor.

CIS 182 Visual C\# Software Development (3-2) 4 crs. Introduces students to Visual C\# software development using the Microsoft .NET Framework. Includes the Visual Studio development environment, variables and constants, decision and repetition structures, methods, exception handling, classes, arrays, file processing, the .NET Framework, and ADO.NET. Prerequisite: CIS 106 with a grade of C or better.

## CIS 211 IT Project Managment Design (2-2) <br> 3 crs.

Provides students with a comprehensive introduction to Information Technology project management. Includes project selection, initiation, planning, execution, monitoring and closure. Hands-on activities are performed using a currently popular project management software package.
Prerequisite: CAS 160 with a grade of C or better and math placement in MTH 101 or higher.

## CIS 220 Topics in Computer Information Systems (1-0 to

 6-0) 1-6 crs.Studies selected problems, computer software or computer languages. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information with pre-registration materials will be available each time the course is offered. This course may be repeated up to a maximum of six credit hours.
Prerequisite: Consent of instructor.
CIS 230 Computer Programmer Internship (1-15) 3 crs.
Applies computer skills in practical situations and also involves a field project in local computer installation. Open only to computer degree candidates. Fourth semester standing with an overall GPA of 3.0 and 3.5 GPA in computer courses.
Prerequisite: Consent of program coordinator.

CIS 243 Database Administration (2-2)
Provides students with hands-on experience installing, configuring, maintaining and supporting a currently popular relational database management system (DBMS). Includes installation, configuration, backup and restore, security, performance monitoring and replication.
Prerequisite: CIS 143 with a grade of C or better.
CIS 244 Database Design and Implementation (2-2)
3 crs.
Provides students with hands-on experience designing and implementing databases using a currently popular relational database management system (DBMS). Includes logical design, physical design, database creation, data import/export, views, stored procedures, triggers, transactions, performance and security.
Prerequisite: CIS 143 with a grade of C or better.
CIS 268 Java Software Development II (3-2) 4 crs Expands upon CIS 168 by introducing students to Java input/ output, threads, collections, networking, advanced Swing, Remote Method Invocation, Java Database Connectivity, and JAR files. Students will develop advanced Java applications that interact with files, the TCP/IP network, remote objects, SQL database, and GUI users.
Prerequisite: CIS 168 with a grade of C or better, or consent of instructor.

CIS 281 Microsoft.NET Web Development (3-2)
4 crs.
Provides experience creating, configuring and deploying web applications using Visual Basic or Visual C\# and the Microsoft.NET Framework. Includes web application development, data integration, custom controls, authentication, authorization and personalization.
Prerequisite: CIS 143, CIS 182 and WEB 150 with grades of $C$ or better.

CIS 299 Software Development Capstone (1-4) 3 crs. Provides hands-on experience analyzing, designing, developing and implementing a software project. Includes quality assurance, project management basics and documentation. May use case studies to demonstrate concepts. Students will carry a project through all phases of analysis, design and development.
Prerequisite: CIS 211 and prior or concurrent enrollment in either CIS 268 or CIS 281 with grades of $C$ or better.

## CNA Certified Nursing Assistant

CNA 101 Nursing Assistant Training (0-0 to 4-5) 0-6 crs. Provides theory and training in the basic skills essential to the practice of health care workers who will assist the nurse in the care of patients in a variety of health care settings. Includes simulated practice and opportunity for clinical application. This course is approved by the Illinois Department of Public Health, Office of Health Regulations. Successful completion is required for application for the Nurse Aide Competency Exam. NOTE: Students are required to have a valid Social Security number, pass a criminal background check and meet health requirements. Special fees apply.
Prerequisite: ENG 100 or ENG 101 with a grade of C or better; or ESL 073 with a grade of B or better; or RDG 090 or RDG 099 with a grade of $C$ or better; or an ACT Reading score of 20 or higher, or required placement test scores.

## CSC Computer Science

## CSC 121 Computer Science I (3-2)

4 crs.
Introduces a disciplined approach to problem solving and algorithm development. Introduces procedural approach; data abstraction; selection, repetition and sequence control structures; arrays, records and files; and an introduction to recursion. Emphasizes program design, testing, and documentation using good programming style in a block-structured, high-level programming language. Designed as the first of a sequence of courses (CSC 121, CSC 122, CSC 216 and CSC 217) for students majoring in Computer Science. IAI CS 911
Prerequisite: MTH 103 and MTH 104 or MTH 140 with grades of C or better; or required math placement test score; or consent of instructor.

## CSC 122 Computer Science II (3-2)

4 crs. Introduces the design and implementation of large scale problems. Introduces data structures: files, sets, pointers, lists, stacks, queues, trees and graphs. Introduces program verification and complexity. Builds previous knowledge of recursion, text processing, and searching and sorting algorithms. Designed as the second of a sequence of courses (CSC 121, CSC 122, CSC 216, CSC 217) for students majoring in Computer Science. IAI CS 912
Prerequisite: CSC 121 and MTH 200 with grades of C or better, or consent of instructor.

## CSC 208 Problem Solving for Science and Engineering Using FORTRAN (3-2) 4 crs.

 Emphasizes problems analysis and problem solving. Includes problem formulation, data storage and retrieval techniques, algorithm analysis and development, flow chart or pseudocode construction. Introduces the student to numerical methods and simulations. Develops working knowledge of current version of FORTRAN. Designed to use the computer in the study of problems in engineering, mathematics and/or physical sciences. Intended for the mathematics, science, computer science or engineering student.Prerequisite: MTH 200 or higher with a grade of $C$ or better, or consent of instructor.

CSC 211 Introduction to C Programming and UNIX (3-2) 4 crs. Develops working knowledge in the use of the computer in the C programming language. Includes problem formulation, data storage and retrieval, algorithms, flowcharts or pseudocode, numerical analysis and structural programming, lexical analysis and string manipulation. Introduces student to a UNIX-like operating system environment. Intended for the computer science or engineering student.
Prerequisite: CSC 121 or CSC 208 with a grade of C or better, or consent of instructor.

CSC 214 Introduction to Java Programming (3-2) 4 crs. Introduces the Java language in a UNIX environment. Includes algorithms, problem formulation, structured programming, variables, data types, input/output repetition, selection, arrays, functions, classes/objects, and recursion. Applications emphasize math, science, engineering, and computer science. This course will build on topics covered in CSC 121 (only in a new language). Prerequisite: CSC 121 with a grade of C or better, or consent of instructor.

CSC 216 Data Structures and Algorithm Analysis (3-2) 4 crs. Provides exposure to techniques for storing and manipulating data. Includes discussion of insertion, deletion, and retrieval algorithms for stacks, queues, deques, linked lists, trees, etc. Emphasizes algorithm analysis as it builds on topics from previous course (CSC 122). Emphasizes mathematics, engineering, science, and computer science applications. Designed as the third of a sequence of courses (CSC 121, CSC 122, CSC 216 and CSC 217) for students majoring in Computer Science. IAI CS 921 Prerequisite: CSC 122 with a grade of C or better, or consent of instructor.

CSC 217 Assembler Programming and Machine Organization (3-2)

4 crs.
Emphasizes machine-level programming, instruction sets, data representation, subroutines, I/O hardware and software, linking and loading related to higher level languages. Designed as the fourth in a sequence of courses (CSC 121, CSC 122, CSC 216 and CSC 217) for students majoring in Computer Science. Prerequisite: CSC 216 with a grade of C or better, or consent of instructor.

## DCS Diagnostic Cardiac Sonography

DCS 101 Electrocardiography I (1.5-1)
2 crs.
Provides instruction and practice in the performance and comprehensive interpretation of rhythm ECGs. Includes instruction in holter monitoring.
Prerequisite: BIO 135 or (BIO160 and BIO161) with grades of C or better.

DCS 102 Electrocardiography II (1.5-1)
2 crs.
Provides instruction and practice in the performance and comprehensive interpretation of 12 lead ECGs. Includes instruction in maximal stress testing.
Prerequisite: DCS 101 with a grade of $C$ or better.
DCS 105 Ultrasound Physics/Instrumentation 1 (2-0) 2 crs. Instructs students in the ultrasound imaging programs in the principles of ultrasound physics and instrumentation. Examines continuous and pulsed sound, sound wave intensities, interaction of sound and media, sound propagation, axial resolution, transducer basics, anatomy of a sound wave, and basic display modalities.
Prerequisite: Admission into the DCS program.
DCS 106 Ultrasound Physics/Instrumentation 2 (2-0) 2 crs. Continues to instruct students in the ultrasound imaging programs in the principles of ultrasound physics and instrumentation. Examines real-time imaging, ultrasound instrumentation, displays, signal processing, harmonics and Doppler principles. Concludes with imaging artifacts, bioeffects and quality assurance.
Prerequisite: DCS 105 with a grade of C or better.
DCS 107 Sonography Theory I (2-0) 2 crs.
Discusses the role of a sonographer and the sonography profession. Examines the different sonography specialty areas and related sonographic exams. Explores the ultrasound crosssectional anatomy of the abdomen, pelvis, chest and neck. Maps the circulation of the cerebral vascular system. Introduces the normal and abnormal cerebrovascular ultrasound. Investigates cerebrovascular disease and trains the student to interpret cerebrovascular ultrasound exams.
Corequisite: DCS 109.

DCS 108 Sonography Theory II (2-0)
2 crs.
Builds on the theoretical foundations covered in DCS 107 (Sonography Theory I). Explores the ultrasound cross sectional vascular anatomy of the extremities. Maps the circulation from the trunk to the periphery. Introduces the normal and abnormal peripheral arterial and venous sonogram. Investigates peripheral vascular disease. Trains the student to interpret peripheral arterial and venous sonographic studies.
Prerequisite: DCS107 with a grade of C or better.
Corequisite: DCS110.
DCS 109 Sonography Lab I (0-2)
1 cr.
Provides supervised laboratory instruction and practice in the basics of ultrasound imaging. Introduces professional expectations of the student sonographer. Covers proper procedure and body mechanics for an ultrasound exam. Orients the student to imaging body habitus. Instructs on the operation of ultrasound equipment. Trains the student to perform diagnostic carotid sonograms. Pass/fail grade.
Corequisite: DCS 107.
DCS 110 Sonography Lab II (0-2)
1 cr.
Provides supervised laboratory instruction and practice in peripheral vascular ultrasound imaging. Trains the student to perform diagnostic peripheral arterial and venous sonographic examinations. Non-imaging physiological peripheral arterial examination techniques are also covered. Expands upon the professional expectations of the student sonographer. Pass/fail grade.
Prerequisite: DCS109 with a grade of C or better.
Corequisite: DCS 108.
DCS 112 Sonography Lab III (0-2)
Provides additional laboratory practice in common vascular ultrasound exams. This course is not required for graduation. Pass/fail grade. (formerly CTE 112)

DCS 204 Cardiovascular Principles (3-0) 3 crs.
Examines important cardiovascular principles. Reviews cardiac anatomy, physiology and pharmacology. Explores cardiac embryology, cardiac hemodynamic principles, and coronary artery disease. Provides an overview of clinical cardiology. (formerly CTE 104)
Prerequisite: BIO 135 or (BIO 160 and BIO 161) with grades of $C$ or better.

DCS 207 Cardiac Sonography Theory I (5-0)
5 crs.
Explores the ultrasound cross-sectional anatomy of the heart. Maps the cardiac circulation. Introduces the normal and abnormal echocardiogram. Investigates valvular, coronary and pulmonary heart disease. Also examines right and left ventricular systolic dysfunction. Trains the student to interpret these pathologies on an echocardiogram. (formerly CTE 107)
Prerequisite: DCS 106 with a grade of C or better.
Corequisite: DCS 209.
DCS 208 Cardiac Sonography Theory II (5-0) 5 crs.
Investigates a host of cardiac and other conditions that impact the heart and the echocardiogram. Covers pericardial, myocardial, endocardial, aortic, diastolic, hypertensive, and diabetic heart disease. Examines heart transplant, valvular repair and replacement, cardiac masses and trauma, and coronary artery anomalies. Investigates systemic conditions that alter the heart. Trains the student to interpret these conditions on an echocardiogram. Introduces transesophageal, stress, contrast, 3D and other advanced echo modalities. (formerly CTE 108) Prerequisite: DCS207 with a grade of C or better.
Corequisite: DCS210.

DCS 209 Cardiac Sonography Lab I (0-4)
2 crs.
Provides supervised laboratory instruction and practice in cardiac ultrasound imaging. Trains the student to perform a basic adult echocardiogram. Reinforces the professional expectations of the student sonographer. Pass/fail grade. (formerly CTE 109)
Prerequisite: DCS 106 with a grade of C or better.
Corequisite: DCS 207.
DCS 210 Cardiac Sonography Lab II (0-4)
2 crs.
Continues supervised laboratory instruction and practice in cardiac ultrasound imaging. Trains the student to perform advanced targeted adult echocardiograms. Reinforces the professional expectations of the student sonographer. Pass/fail grade. (formerly CTE 110)
Prerequisite: DCS 209 with a grade of C or better. Corequisite: DCS 208.

DCS 220 Intro to Cardiac Sonog Clinical (1.5-1.5) 2 crs. Prepares students for their formal clinical experience by orienting them to all aspects of the hospital environment and the specific procedures for completing sonograms in the medical setting. Explores relevant policy, business implications, management of the inpatient, and how chart review impacts the direction of the study. Examines prudent professional, ethical, and culturally competent patient interaction. Grooms the student for their future career by covering job search, credentialing and professional development, lab leadership and educational advancement. Includes a three-day observational experience in the clinical ultrasound department.
Prerequisite: DCS 207 and DCS 209 with grades of C or better. Corequisite: DCS 208 and DCS 210.

DCS 230 Cardiac Sonography Clinical (0-25) 5 crs. Provides the student with practical clinical experience performing adult echocardiograms in a hospital or other clinical setting. Orients the student to that hospital environment and the specific policies and procedures for completing sonograms in that medical setting. Allows the student to perform these echocardiograms on patients under the close supervision of clinical staff. Provides an opportunity for students to develop and demonstrate the knowledge base, clinical skills, and professional skills required of an entry level sonographer. (formerly CTE 130)
Prerequisite: DCS 208, DCS 210 and DCS 220 with grades of C or better.

DCS 260 Advanced Sonography Seminar (1-0)
1 cr . Introduces new or advanced topics in sonography. Explores the evolution and provides necessary background in terms of related anatomy, hemodynamics, physics and pathology. Presents related ultrasound case studies and trains in the interpretation of the ultrasound examination. Covers implications to the performance of the sonographic procedure including protocols, modalities and specific assessment techniques. Enhances the skill of the sonographer past entry level. May be repeated up to six credit hours.

## DHY Dental Hygiene

DHY 100 Pre-Clinic (3-6)
5 crs.
Introduces the student to clinical dental hygiene with emphasis on the role of the dental hygienist in the control and prevention of dental disease. NOTE: Students must be admitted into the Dental Hygiene program to register for this course.
DHY 101 Clinical Dental Hygiene I (2-9)
5 crs.
Applies theoretical concepts in a clinical setting and introduces periodontology. Refines clinical skills and emphasizes the preventive aspects of dentistry. The student performs traditional dental hygiene clinical functions.
Prerequisite: DHY 100, DHY 159, and DHY 161 with grades of C or better.

## DHY 111 Dental Radiology (2-3)

3 crs.
Provides theory in radiation physics, safety and the biological effects of ionizing radiation. Intraoral exposure techniques, darkroom procedures and film interpretation are emphasized in the laboratory. Practical experience provided on mannequins and selected patients.
Prerequisite: DHY 100, DHY 159, and DHY 161 with grades of C or better.

## DHY 119 Oral Health Management of Special Needs

## Populations (2-0)

2 crs.
Introduces characteristics and oral health management needs of geriatrics, special populations and the medically compromised with diabetes and cardiovascular disease. Physical, psycho/social and oral characteristics associated with special needs populations are discussed. Modifications of comprehensive dental hygiene care will be emphasized. The caregiver team concept will be incorporated.
Prerequisite: DHY 101, DHY 111, and DHY 190 with grades of C or better.

DHY 151 Clinical Dental Hygiene II (0-6) 2 crs. Provides clinical practice in oral prophylaxis on adult patients, including preventive techniques, exposing radiographs and patient management.
Prerequisite: DHY 101, DHY 111, and DHY 190 with grades of C or better.

## DHY 159 Head and Neck Anatomy (3-0) <br> 3 crs. <br> Introduces anatomy of the head and neck regions with special

 emphasis on the human dentition. Skeletal, muscular, glandular, circulatory, nervous and epithelial structures are considered in detail. Also includes introductory material on human histology and orofacial embryology. NOTE: Students must be admitted into the DHY program to register for this course.DHY 161 Dental Anatomy (1-2)
2 crs.
Introduces the student to terms and anatomic structures of the oral cavity including a detailed study of crown and root morphology of both primary and permanent dentitions. NOTE: Students must be admitted into the Dental Hygiene program to register for this course.

DHY 190 General and Oral Pathology (2-0) 2 crs.
Studies fundamentals of microscopic and gross pathology and general pathological processes. Specifically emphasizes diseases of dental and periodontal tissues and of the supporting oral structures. Correlates clinical manifestations of disease with dental hygiene practice.
Prerequisite: DHY 100, DHY 159, and DHY 161 with grades of C or better.

## DHY 200 Periodontology (1-2) <br> 2 crs.

Reviews etiological and histological components of periodontal disease emphasizing current theoretical concepts in treatment and management of periodontally involved patients. Provides laboratory experience to refine non-surgical techniques.
Prerequisite: DHY 119, DHY 151, DHY 269, and DHY 270 with grades of $C$ or better.

DHY 201 Ethics, Jurisprudence and Practice Management
(2-0) 2 crs.
2 crs.
Studies the development of dental office and clinic practice management procedures and professional interrelationships. Considers the role of the dental hygienist in the various dental specialties and various employment modalities.
Prerequisite: DHY 200, DHY 202, DHY 220, DHY 230, DHY 240, and DHY 250 with grades of $C$ or better.

## DHY 202 Radiology I (0-2)

1 cr.
Continues practice in the techniques of exposing, processing, mounting and evaluating dental radiographs.
Prerequisite: DHY 119, DHY 151, DHY 269 and DHY 270 with grades of $C$ or better.

DHY 203 Radiology II (0-2)
1 cr .
Continues DHY 202.
Prerequisite: DHY 200, DHY 202, DHY 220, DHY 230, DHY 240 and DHY 250 with grades of $C$ or better.

DHY 220 Community Dental Health I (1-2)
2 crs.
Introduces the principles of dental public health and its application to dental hygiene, including: epidemiology, disease prevention, assessment methods, program planning and resource identification. Reviews and interprets dental scientific literature and introduces the utilization of research tools and statistical analysis.
Prerequisite: DHY 119, DHY 151, DHY 269 and DHY 270 with grades of C or better.

DHY 221 Community Dental Health II (1-2) 2 crs. Emphasizes the direct application of preventive dentistry services in the community and the design of treatment plans to meet identified community needs. Community fluoridation, schoolbased services, tobacco cessation, and consumer education and health promotion will be included. Students will be required to participate in group activities to share service learning experiences.
Prerequisite: DHY 200, DHY 202, DHY 220, DHY 230, DHY 240 and DHY 250 with grades of $C$ or better.

DHY 230 Pain Management (1-2) 2 crs
Provides students with the basic and current concepts of local anesthetics and pain control and to provide for the safe and effective administration of local anesthetics. Includes the rationale for pain control, psychological considerations, armamentarium, anatomy, neurophysiology and pharmacology of anesthetic agents. Provides laboratory instruction and clinical practice in topical and local anesthetic techniques. Introduces the use and administration of nitrous oxide analgesia.
Prerequisite: DHY 119, DHY 151, DHY 269 and DHY 270 with grades of $C$ or better.

DHY 240 Dental Pharmacology (2-0)
2 crs.
Examines the principles of drug actions and characteristics of major drug groups. Emphasis is placed on drugs used in dentistry and the management of dental patients who receive drug treatment for medical problems.
Prerequisite: DHY 119, DHY 151, DHY 269 and DHY 270 with grades of $C$ or better.
DHY 250 Clinical Dental Hygiene III (1-12)
5 crs.
Continues clinical practice of dental hygiene with emphasis on the comprehensive treatment of periodontally involved patients.
Prerequisite: DHY 119, DHY 151, DHY 269 and DHY 270 with grades of $C$ or better.

DHY 251 Clinical Dental Hygiene IV (1-12)
5 crs.
Continues DHY 250.
Prerequisite: DHY 200, DHY 202, DHY 220, DHY 230, DHY 240 and DHY 250 with grades of $C$ or better.

DHY 269 Science of Dental Materials (1-0) 1 cr .
Studies the characteristics, properties, composition and function of materials used in dentistry. Includes familiarization with techniques and procedures used in the dental profession. Prerequisite: DHY 101, DHY 111 and DHY 190 with grades of C or better.

DHY 270 Dental Materials Laboratory Techniques (0-2) 1 cr. Introduces the student to the use and manipulation of materials used in dentistry, with an emphasis on the clinical application of materials that relate directly to the functions of the dental hygienist.
Prerequisite: DHY 101, DHY 111 and DHY 190 with grades of C or better.

## DIT Dietetic Technician

DIT 101 Fundamentals of Nutrition (0-0 to 3-0)
0-3 crs.
Introduces the science of nutrition and its relationship to health and disease. Nutrients found in foods, their digestion, absorption and metabolism by the body; cultural, socioeconomic and psychological influences on food selection; and application of these concepts to promote good nutritional health and prevent disease will be covered. IAI L1 904

DIT 102 Medical Nutrition Therapy (0-0 to 3-0) 0-3 crs.
Studies the nutritional care of clients with chronic and acute disease conditions.
Prerequisite: DIT 101 with a grade of C or better.
DIT 103 The Nutrition Care Process (3-0) 3 crs. Introduces the components of the nutrition care process including methods of nutrition screening which is the framework used by dietetics professionals for the provision of nutritional services. Issues related to the dietetics profession including responsibilities of dietetic professionals, code of ethics, standards of professional performance, credentialing and development of a professional portfolio are also covered.
DIT 110 Principles of Food Preparation (0-0 to 2-2) 0-3 crs. Introduces the scientific principles of food preparation. Emphasis is placed on food selection and basic food preparation practices. Laboratory experience includes application of these principles, sensory evaluation and recipe modification.

## DIT 150 Dietetic Clinical Laboratory I (1-12)

5 crs.
Offers student assigned clinical laboratory experience in approved health care and community agencies. Emphasis will be placed on development of skills required of the dietary manager.
Prerequisite: DIT 103 and DIT 220 with grades of C or better, and prior or concurrent enrollment in DIT 102.
DIT 200 Dietetic Clinical Laboratory II (0-12) 4 crs. Offers student assigned clinical laboratory experience in approved health care and community agencies. Emphasis will be placed on the nutrition care planning process.
Prerequisite: BIO 135, BIO 136, DIT 150 and HSC 112 with grades of $C$ or better. MTH 060 or higher with a grade of $C$ or better or math placement test score into MTH 080 or above. Prior or concurrent enrollment in HSC 165.

DIT 201 Nutrition Education Techniques (3-0) 3 crs. Studies the skills necessary to present effective nutrition education programs to individuals, small groups and community populations. Emphasis will be placed on developing appropriate strategies, techniques and materials for health improvement and disease prevention that are culturally sensitive, age appropriate and at the educational level of the audience.
Prerequisite: DIT 102 and DIT 103 with grades of C or better.
DIT 202 Nutrition Care Seminar (3-0)
3 crs.
Reviews planning, implementing and evaluating nutrition care given to individuals and groups of people having specific disease conditions, both acute and chronic.
Prerequisite: Prior or concurrent enrollment in DIT 200 with a grade of $C$ or better.

DIT 205 World Cultures and Food (0-0 to 2-2) 0-3 crs. Examines the uniqueness of food patterns from around the world as shaped by geographic, historical, socioeconomic and religious factors. Explores how food can be a bridge to understanding multiculturalism through the preparation of traditional recipes in the laboratory setting.

DIT 220 Food Systems Administration (0-0 to 3-0) 0-3 crs. Introduces the principles of administering food systems, with emphasis on menu planning, procurement of quantity foods, quantity foods equipment, staffing, and financial controls. Includes an introduction to computer use within food systems.
Prerequisite: Prior or concurrent enrollment in FSM 114 with a grade of $C$ or better.
DIT 250 Dietetic Clinical Laboratory III (0-6)
2 crs.
Offers student assigned clinical laboratory experience in approved health care and community agencies. Emphasis will be placed on nutrition interventions which promote wellness and disease prevention.
Prerequisite: DIT 201 with a grade of C or better. Prior or concurrent enrollment in DIT 200.

## DIV Diversity

DIV 101 Exploring Diversity in the U.S. (3-0)
3 crs.
Focuses on culture and other diversity issues and topics utilizing an interactive personal development format. Students will discuss dimensions of their own culture and cultures of others within the United States. They will have the opportunity to examine discrimination and prejudice between groups and analyze the impact of these power differences on peoples' lives. The experiential nature of this course will give students the opportunity to develop skills necessary to interact effectively in a diverse society.

## DMS Diagnostic Medical Sonography

DMS 105 Ultrasound Physics/Instrumentation 1 (2-0) 2 crs. Instructs students in the ultrasound imaging programs in the principles of ultrasound physics and instrumentation. Examines continuous and pulsed sound, sound wave intensities, interaction of sound and media, sound propagation, axial resolution, transducer basics, anatomy of a sound wave, and basic display modalities.

DMS 106 Ultrasound Physics/Instrumentation 2 (2-0) 2 crs. Continues to instruct students in the ultrasound imaging programs in the principles of ultrasound physics and instrumentation. Examines real time imaging, ultrasound instrumentation, displays, signal processing, harmonics, and Doppler principles. Concludes with imaging artifacts, bioeffects, and quality assurance.
Prerequisite: DMS 105 with a grade of C or better.
DMS 107 Sonography Theory I (2-0)
2 crs.
Discusses the role of a sonographer and the sonography profession. Examines the different sonography specialty areas and related sonographic exams. Explores the ultrasound cross sectional anatomy of the abdomen, pelvis, chest and neck. Maps the circulation of the cerebral vascular system. Introduces the normal and abnormal cerebrovascular ultrasound. Investigates cerebrovascular disease and trains the student to interpret cerebrovascular ultrasound exams.
Corequisite: DMS 109
DMS 108 Sonography Theory II (2-0)
2 crs.
Builds on the theoretical foundations covered in Sonography
Theory I. Explores the ultrasound cross sectional vascular anatomy of the extremities. Maps the circulation from the trunk to the periphery. Introduces the normal and abnormal peripheral arterial and venous sonogram. Investigates peripheral vascular disease. Trains the student to interpret peripheral arterial and venous sonographic studies.
Prerequisite: DMS 107 with a grade of C or better.
Corequisite: DMS 110.

DMS 109 Sonography Lab I (0-2)
1 cr.
Provides laboratory practice in the basics of ultrasound imaging. Introduces professional expectations of the student sonographer. Covers proper procedure and body mechanics for an ultrasound exam. Orients the student to imaging body habitus. Instructs on the operation of ultrasound equipment. Trains the student to perform diagnostic carotid sonograms. Pass/fail grade.
Corequisite: DMS 107.

## DMS 110 Sonography Lab II (0-2)

Provides laboratory practice in peripheral vascular ultrasound imaging. Trains the student to perform diagnostic peripheral arterial and venous sonographic examinations. Non-imaging physiological peripheral arterial examination techniques are also covered. Expands upon the professional expectations of the student sonographer. Pass/fail grade.
Prerequisite: DMS 109 with a grade of C or better.
Corequisite: DMS 108.
DMS 112 Sonography Lab III (0-2)
1 cr.
Provides additional laboratory practice in common vascular ultrasound exams. This course is not required for graduation. Pass/fail grade. (formerly CTE 112)

## DMS 201 Introduction to the Medical Sonography Clinical

 (1.5-1.5) 2 cr Prepares students for their formal clinical experience by orienting them to all aspects of the hospital environment and the specific procedures for completing sonograms in the medical setting. Explores relevant policy, business implications, management of the inpatient, and how chart review impacts the direction of the study. Examines prudent, professional, ethical, and culturally competent patient interaction. Grooms the student for their future career by covering job search, credentialing and professional development, lab leadership, and educational advancement. Includes a three day observational experience in the clinical ultrasound department.Corequisite: DMS 204, DMS 205, and DMS 206.
DMS 204 Abdominal and Small Parts Sonography Theory I (4-0) 4 crs.
Explores the ultrasound cross sectional anatomy of the major structures and organs of the abdomen. Maps the related abdominal circulation. Introduces the normal and abnormal ultrasound of the liver, gallbladder, pancreas, spleen and urinary system. Investigates pathologies of these same structures. Trains the student to interpret these pathologies on ultrasound.
Prerequisite: DMS 106 with a grade of $C$ or better.
Corequisite: DMS 205 and DMS 206.

## DMS 205 Obstetrical and Gynelogical Sonography Theory I (3-0) <br> 3 crs.

Explores the ultrasound cross sectional anatomy of the female pelvis. Maps the related pelvic circulation. Introduces the normal and abnormal ultrasound of the uterus, ovaries, adnexa, neonatal and pediatric pelvis, and the first trimester pregnancy. Investigates pathologies of these same structures. Trains the student to interpret these pathologies on ultrasound. Introduces the role of ultrasound in evaluating female infertility.
Prerequisite: DMS 106 with a grade of $C$ or better.
Corequisite: DMS 204 and DMS 206.
DMS 206 Medical Sonography Lab I (0-4)
2 crs.
Provides supervised laboratory instruction and practice in abdominal and gynecologic ultrasound imaging. Trains the student to perform an ultrasound of the aorta, liver, gallbladder, pancreas, spleen, urinary system, and female pelvis. Reinforces the professional expectations of the student sonographer. Pass/ fail grade.
Prerequisite: DMS 106 with a grade of $C$ or better.
Corequisite: DMS 204 and DMS 205.

DMS 207 Medical Sonography Clinical I (0-25) 5 crs.
Provides the student with practical clinical experience performing abdominal, small parts, vascular, obstetrical and gynecological ultrasound in a hospital or other clinical setting. Orients the student to that hospital environment and the specific policies and procedures for completing sonograms in that medical setting. Allows the student to perform these ultrasounds on patients under the close supervision of clinical staff. Provides an opportunity for students to develop and demonstrate the knowledge base, clinical skills, and professional skills required of an entry level sonographer.
Prerequisite: DMS 201, DMS 204, DMS 205 and DMS 206 with grades of $C$ or better.

## DMS 208 Abdominal and Small Parts Sonography Theory 2 (4-0) <br> 4 crs.

Continues to explore the ultrasound cross sectional anatomy of the abdomen and of specific small parts. Introduces the normal and abnormal ultrasound of the thyroid, scrotum, pediatric abdomen, gastrointestinal tract, abdominal walls and cavities, liver and urinary circulation, breast, neonatal spine and brain, and some specific musculoskeletal structures. Investigates pathologies of these same structures. Trains the student to interpret these pathologies on ultrasound. Reinforces vascular interpretation skills covered in previous coursework. Introduces ultrasound-guided interventional techniques and emergent abdominal ultrasound procedures.
Prerequisite: DMS 204 with a grade of C or better.
Corequisite: DMS 209 and DMS 210.
DMS 209 Medical Sonography Lab II (0-4)
Continues supervised laboratory instruction and practice in abdominal, gynecologic, and vascular ultrasound; expanding into more advanced or targeted ultrasound imaging. Trains the student to perform liver and kidney doppler as well as thyroid, breast, scrotal, transvaginal, obstetric and common musculoskeletal sonographic examinations. Reinforces the professional expectations of the student sonographer. Pass/fail grade.
Prerequisite: DMS 206 with a grade of $C$ or better. Corequisite: DMS 208 and DMS 210.

## DMS 210 Obstetrical and Gynecological Sonography Theory II (3-0)

Builds on the theoretical foundations covered in DMS 205 (Obstetrical and Gynecological Sonography Theory I.) Explores the ultrasound cross-sectional anatomy of the second and third trimesters. Maps fetal embryology. Introduces the normal and abnormal ultrasound of the first, second and third trimester pregnancy. Investigates pathologies of the pregnant uterus and the developing fetus. Trains the student to interpret these pathologies on ultrasound. Introduces 3D and 4D sonographic evaluations of fetal anomalies.
Prerequisite: DMS 205 with a grade of $C$ or better. Corequisite: DMS 208 and DMS 209.

DMS 211 Medical Sonography Clinical II (0-25) 5 crs.
Continues the student's practical clinical experience performing abdominal, small parts, vascular, obstetrical and gynecological ultrasounds in a hospital or other clinical setting. Allows the student to perform these ultrasounds on patients under the close supervision of clinical staff. Continues to provide an opportunity for students to develop and demonstrate the knowledge base, clinical skills, and professional skills required of an entry-level sonographer.
Prerequisite: DMS 207 with a grade of C or better

DMS 260 Advanced Sonography Seminar (1-0) 1 cr . Introduces new or advanced topics in sonography. Explores the evolution and provides necessary background in terms of related anatomy, hemodynamics, physics and pathology. Presents related ultrasound case studies and trains in the interpretation of the ultrasound examination. Covers implications to the performance of the sonographic procedure including protocols, modalities and specific assessment techniques. Enhances the skill of the sonographer past entry level. May be repeated up to six credit hours.

## ECE Early Childhood Education

ECE 101 Introduction to Early Childhood Education (3-0)

3 crs.
Provides an overview of early childhood care and education, including the basic values, structure, organization and programming. Examination of the student's personal qualities in relationship to expectations of the field. Directed observation in a variety of programs and settings. Fifteen (15) hours of observation required. (NOTE: The program's health requirements must be completed prior to observation.)

ECE 102 Child Development (3-0)
3 crs.
Provides a study of human development from conception through adolescence. Includes research methods and developmental theories. Address all major areas of development (physical, social, emotional and cognitive) and the interaction among these areas. Examines theories of Piaget, Erikson, Vygotsky, Skinner, Gardner and others. Explores child development in the context of gender, family, culture, and society. Emphasis is on the implication for early childhood professional practice.

ECE 111 Infant/Toddler Programs (3-0) 3 crs.
Examines the theories and research (including early intervention) related to infants and toddlers with a focus on methods of care given in home-based and school-based infant programs. Observation of infants/toddlers and related programs.

ECE 112 Play and Assessment of the Young Child (3-0) 3 crs. Develops observational skills to assess and record a child's level of development during play. Identification of types, goals and appropriate materials for play, strategies for communicating and working with parents and team members.
Prerequisite: Prior or concurrent enrollment in ECE 102 with a grade of $C$ or better.

ECE 115 Principles of Early Childhood Curriculum (3-0) 3 crs.
Provides an overview of principles involved in planning, implementing and evaluating developmentally appropriate curriculum. Includes lesson plans, emerging curriculum, scheduling, room arrangement, materials and equipment; individual, small and large group activities; short and long term goals; and teacher's roles and responsibilities in curriculum development. Three (3) hours of obsrvation required.
Prerequisite: Prior or concurrent enrollment in ECE 102 with a grade of $C$ or better.

## ECE 120 Introduction to Special Education for

 Paraprofessionals (3-0)3 crs.
Examines characteristics of children with special needs and the methods used in special education. The role of the special education teacher's aide will be studied with a focus on implementing educational plans, family issues, legal rights and responsibilities.

## ECE 121 Behavioral Management in Special Education

 Setting (3-0)Studies the role of behavioral management within the special education population and provides understanding of rationale, terminology and methods used when working with special needs children and their families.

ECE 140 Family Child Care Management (1-0) 1 cr .
Provides guidelines and responsibilities in providing home day care for infants and young children.

ECE 143 Safety for the Young Child (1-0) 1 cr.
Focuses on safety for the young child in group settings.
ECE 144 Nutrition for the Young Child (1-0) 1 cr.
Focuses on nutrition for the young child in group settings.
ECE 146 Programming for School Age Care (1-0) 1 cr.
Relates theory and practice of school age programming.
Emphasizes daily program planning, implication and assessment.

## ECE 149 Topics in Early Childhood Education (1-0 to

 3-0) 1-3 crs.Studies selected problems or topics in early childhood. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. This course may be repeated up to a maximum of three credit hours.

ECE 151 Communicating With Parents and Children (1-0) 1 cr Establishes parent relationships through effective listening, speaking, writing. Develops communication skills in relation to children and co-workers.

ECE 152 Principles of Child Growth and Development, Birth-5 (1-0)

1 cr .
Discusses principles of child growth and development from birth through age five. Emphasis on developmental milestones and cultural influences.

## ECE 153 Guiding Children and Managing the Classroom

 (1-0)1 cr.
Provides methods of guiding children's behavior, encouraging prosocial behavior and dealing with common problems. Emphasis on principles and skills in classroom management.

ECE 154 Activities and Resources for Young Children I (1-0)

1 cr.
Aids in planning the learning environment, which includes the schedule, themes and activities incorporating art, motor, music and movement, health and safety, and nutrition.

## ECE 155 Activities and Resources for Young Children II

 (1-0)1 cr. Aids in planning the learning environment to incorporate appropriate themes and activities in math, science, social studies, language, literature, dramatic play and group time.

ECE 156 Effective Teaching (1-0)
1 cr .
Provides methods for maintaining and increasing effective teaching behaviors. Also includes relations with parents and coworkers, teacher behaviors, burnout and professional growth.

ECE 209 Language Development and Activities for the Young Child (3-0)

3 crs.
Provides an in-depth knowledge and understanding of language development, the stages involved, the role that adults play, and the relationship of language to other aspects of development. Introduces the student to a wide variety of language activities appropriate for young children and develops skills in preparing, presenting and evaluating language activities. Note: The prerequisite is needed starting with the Spring 2014 semester. Prerequisite: ECE 115.

ECE 210 Creative Activities for Young Children (2-2) 3 crs. Examines the theoretical framework for art, creativity, music and movement. Acquaints the student with a variety of creative art materials and methods appropriate for use in programs for young children. Includes firsthand experience with materials and planning an arts program. Stresses the relationship of creative experiences within the curriculum and the role of creative experiences within the early childhood program. Note: The prerequisite is needed starting with the Spring 2014 semester. Prerequisite: ECE 115.

ECE 221 Math and Science for the Young Child (3-0) 3 crs. Introduces the theory and practice related to math and science for young children. Emphasis will be placed on the development and evaluation of developmentally appropriate activities and instructional materials. Note: The prerequisite is needed starting with the Spring 2014 semester.

## Prerequisite: ECE 115.

ECE 226 Assessment and Guidance (3-0)
3 crs.
Understand concepts of appropriate assessment, expected educational outcomes, the teacher's responsibility in assessment and how young children develop and learn. Students will understand how appropriate assessments can measure and evaluate child growth and development and how the use of assessment tools can influence decisions in early childhood education with an emphasis on appropriate guidance techniques and strategies. Four (4) hours of observation are required.
Prerequisite: Prior or concurrent enrollment in ECE 102 with a grade of $C$ or better.

## ECE 230 Movement and Rhythms for the Young Child

 (3-0)3 crs.
Presents research, theory and practical application as it relates to teaching music and movement; illustrates appropriate methods, materials and equipment for use in classroom programming. Note: The prerequisite is needed starting with the Spring 2014 semester.
Prerequisite: ECE 115.
ECE 235 Principles of School Age Care (3-0)
3 crs.
Relates theory and practice of school age programming.
Emphasizes program planning, implementation and assessment, use of materials, principles of growth and development, role of teacher and techniques of classroom management. Students will observe and participate in school age child care.

## ECE 250 Health, Nutrition and Safety (3-0)

3 crs.
Focuses on personal health of the individual, including nutrition and health and safety issues, with emphasis on meeting health needs for children in group settings. A healthy lifestyle, preventive health and community health are examined. One (1) hour of observation is required.

ECE 252 Child-Family-Community (3-0) 3 crs.
Concentrates on teacher's role in working with children within the context of family and community. Stresses effective communication, diversity, professionalism and social policy. Includes an in-depth study of community resources. Two (2) hours of observation are required.

## ECE 253 Administration of Early Childhood Programs

 (3-0)Provides guidelines for the establishment and operation of a child development center. Emphasizes the director's role in programming, school policies, budgeting, record keeping, licensing, municipal codes, insurance, staff development, evaluation procedures, parent communication and community resources.
Prerequisite: Completion of 15 credit hours including ECE 102 and ECE 115 with grades of $C$ or better, or consent of program coordinator.

ECE 254 Interpersonal Relationships in Early Childhood Education (1-0)
Explores personal experiences within the work environment, impact of sex-roles, organizational polices and professional standards. Emphasizes team building and the development of effective interpersonal communication skills.

ECE 291 Early Childhood Practicum I (1-10)
3 crs.
Emphasizes the practical application of principles and theories in early childhood education within a supervised setting, while working with young children. The student will be supervised by a qualified professional for 160 documented hours at an approved site and attend weekly seminars. (NOTE: The program's health requirements, background check and CPR Basic Rescuer certification must be completed prior to placement in practicum).
Prerequisite: ECE 101, ECE 102, ECE 115, ECE 209, ECE 226 and ENG 101 with grades of $C$ or better, or consent of instructor.

## ECE 292 Early Childhood Practicum II (1-10)

 3 crs.Emphasizes the practical application of early childhood education principles and theories in a supervisory capacity, while working with young children aged 0-3 years. The student will be supervised by a qualified professional for 160 documented hours at an approved site and attend a weekly seminar (NOTE: The program's health requirements, background check and CPR Basic Rescuer certification must be completed prior to placement in practicum).
Prerequisite: ECE 111 and ECE 291 with grades of C or better, and consent of instructor.

ECE 293 Early Childhood Director Practicum (1-10) 3 crs.
Emphasizes the practical application of early childhood education principles and theories in a supervisory capacity, while working with a director, staff, parents, and young children. The student will be supervised by a qualified director for 300 documented hours as mandated by the State of Illinois Director Credentials.
Prerequisite: Consent of program coordinator.

## ECO Economics

ECO 115 Consumer Economics (3-0)
3 crs.
Introduces the concepts of personal financial planning within the current economic environment. Emphasizes topics such as basic macroeconomic theory, obtaining credit, purchasing insurance, investment alternatives, basic real estate finance and tax planning.

ECO 200 Introduction to Economics (3-0) 3 crs.
Covers descriptive rather than a quantitative approach to the study of economics. Major topics cover economic history, the elements of macroeconomics, microeconomics and a comparative look at other economic systems. Specifically designed for students in career-vocational curricula. IAI S3 900

ECO 210 Money and Banking (3-0)
3 crs.
Stresses the practical aspects of money and banking, and emphasizes the basic monetary theory needed by the banking student to apply his knowledge to his particular job. Historical treatment has been kept to a minimum. Emphasis is placed on such problems as economic stabilization, types of spending, the role of gold, limitations of central bank control, governmental fiscal policy, balance of payments and foreign exchange, showing their repercussions on the banking industry in affective yield curves and the structuring of portfolios.
Prerequisite: ECO 200 or ECO 212 with a grade of C or better.
ECO 211 Microeconomics (3-0)
3 crs.
Covers economic problems faced by the individual and the firm. Examination of market structures, price and output determination. The microeconomic approach. IAI S3 902

ECO 212 Macroeconomics (3-0) 3 crs.
Covers economic problems faced by our society. Examination of resource allocation, national income and economic development, from a macroeconomic approach. IAI S3 901

## EDU Education

EDU 201 Introduction to Education (3-0)
Provides an introduction to teaching as a profession in the American education system. Offers a variety of perspectives on education including historical, philosophical, social, legal, and ethical issues in a diverse society. Includes organizational structure and school governance. There is a mandatory 15 hour clinical component in this course; therefore, the student must pass a criminal background check for successful completion of this course.

EDU 202 Pre-Student Teaching Clinical Experience (0-2) 1 cr. Provides an in-depth study of classroom practices in the subject and age category that each student is training to teach. Students will complete the clinical component of this course by observing classrooms in their area of interest and will attend a seminar once weekly to discuss their experience; therefore, the student must pass a criminal background check for successful completion of this course.
EDU 211 Educational Psychology (3-0)
3 crs.
Examines psychological principles underlying educational practice. Theories concerning cognitive and psychological development, human learning, and motivation are studied with emphasis on application for instruction, including assessment. Emphasis will also be placed on learner-centered instruction and diversity. There is a clinical component in this course, therefore; the student must pass a criminal background check for successful completion of this course.
Prerequisite: PSY 101 or consent of instructor.
EDU 219 Students With Disabilities in School (3-0) 3 crs. Presents the historical, philosophical and legal foundations of special education, as well as an overview of the characteristics of individuals with disabilities, the programs that serve them under the Individuals with Disabilities Education Act, and the diversity of the populations of individuals with disabilities. There is a mandatory thirty (30) hour clinical component in this course; therefore, the student must pass a criminal background check for successful completion of this course. Formerly ECE 219.
Prerequisite: ECE 102 with a grade of C or better, or consent of instructor.

EDU 220 Diversity in Schools and Society (3-0) 3 crs.
Provides an introduction to diversity issues in schools and society today. Examines how schooling is shaped by the social contexts in which it occurs, particularly in multicultural and global contexts. Includes examination of both social and global perspectives.

## EDU 230 Introduction to Language Arts in Elementary/Middle School Teaching (3-0) <br> 3 crs.

Examines the foundations of effective practices in supporting student progress toward both fluent and strategic reading and writing. Provides an introduction to the theory and practices of language arts education for students who are interested in becoming teachers. Focuses on construction of meaning from print, the relationship between reading and writing, and the principles of classroom assessment. Provides an introduction to the Illinois Learning Standards for English Language Arts.
EDU 250 Introduction to Technology in Education (2-2) 3 crs. Introduces educators to the knowledge and skills required to demonstrate their proficiency in the current technology standards. The course focuses on both knowledge and performance, and includes hands-on technology activities.
Prerequisite: Keyboarding, basic skill word processing, spreadsheet, and database programs, or consent of instructor.

EDU 290 Topics in Education (0.5-0 to 3-0) 0.5-3 crs.
Studies selected problems or topics in education. The exact content and instructional method will vary from semester to semester. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated up to a maximum of three credit hours.
EDU 999 Preparing for the TAP (1-3)
1-3 crs.
Prepares prospective teachers to take and pass the Test of Academic Proficiency (TAP) by refreshing and/or improving skills and abilities in reading, language arts, writing and mathematics. NOTE: Students must have basic computer skills prior to enrolling in this course. This course may be repeated three times.

## EGR Engineering

EGR 100 Introduction to Engineering (1-1)
1 cr .
Introduces engineering techniques, methods and history. Explores career options and requirements for various engineering fields. Covers interrelationships within and between engineering, technology and science to allow differentiation between various career choices.
EGR 120 Engineering Graphics I (CAD) (2-5) 4 crs. Introduces engineering graphics and design. Includes drafting, dimensioning, tolerancing, fasteners, and descriptive geometry. Engineering graphics topics include multi-view orthographic representations, principal auxiliary views, section views and production drawings. Laboratory work is supported by threedimensional CAD utilizing solid modeling techniques. IAI EGR 941 Prerequisite: MTH 070 (or equivalent) with a grade of C or better or Geometry placement test, or consent of instructor.
EGR 121 Engineering Graphics II (CAD) (1-5)
3 crs.
Covers the analysis of common geometric entities emphasizing planes, surfaces and geometric features contained in typical engineered products. Includes intersections and developments, surface modeling, solid modeling including both features and assemblies, and three-dimensional annotation techniques. Laboratory is supported by commercial CAD software utilizing solid modeling and surfacing techniques.
Prerequisite: EGR 120 with a grade of C or better, or consent of instructor.

EGR 210 Analytical Mechanics (statics) (3-1) 3 crs. Emphasizes analysis of force systems using vectors. Topics include particle statics, general principles and force vectors, rigid body equilibrium, moments of inertia, distributed forces and centroids, analysis of structures, virtual work and friction. IAI EGR 942
Prerequisite: MTH 200 with a grade of C or better, or consent of instructor.

EGR 211 Analytical Mechanics (dynamics) (3-1) 3 crs. Emphasizes dynamic analysis of rigid bodies. Topics include particle kinematics (rectilinear and curvilinear), Newton's laws, energy, work, and momentum methods, planar dynamics and rigid bodies, rigid body kinematics, impulse and momentum, and vibrations. IAI EGR 943
Prerequisite: EGR 210 and PHY 201 with grades of $C$ or better.
EGR 212 Mechanics of Solids (3-1) 3 crs.
Covers elastic and inelastic relationships involving deformable bodies. Topics include concepts of stress and strain, material properties (elastic and plastic), torsion, shear stresses and deformations, thermal stresses, thin-walled pressure vessels, pure bending, stresses and strains, transverse loading of beams, shear stress and combined loadings, transformation of stress and strain (Mohr's Circle), design of beams and shafts for strength, shear and moment diagrams, deflection of beams, energy methods, and columns. IAI EGR 945
Prerequisite: EGR 210 with a grade of $C$ or better.

EGR 240 Thermodynamics (3-0)
Introduces classical thermodynamics. Topics include basic concepts and definitions, the zeroth law of thermodynamics, the first and second laws of thermodynamics, ideal and real gas behaviors, control-volume energy analysis, entropy, non-reactive ideal gas mixtures and psychrometrics and cycles.
Prerequisite: MTH 202 and PHY 202 with grades of C or better.

## EGR 260 Introduction to Circuit Analysis (4-0)

4 crs. Introduces analysis of electric circuits, electrical components, and networks. Topics include concepts of electricity and magnetism, circuit variables (units, voltage, inductance, power and energy), circuit elements (R, L, C and operational amplifiers), simple resistive circuits, circuit analysis (node-voltage, mesh-current, equivalents, and superposition), transient analysis, and sinusoidal steady state (analysis and power). IAI EGR 931L
Prerequisite: MTH 202 and PHY 202 with a grade of C or better.
EGR 262 Electrical Circuits Laboratory (1-2) 2 crs.
Introduces standard electrical instruments and measurement techniques. Includes practical applications to topics of EGR 260. Covers circuit response, elementary filter response and resonance measurements. Includes basic measurements of transistors and operational amplifiers. IAI EGR 931L
Prerequisite: EGR 260 with a grade of $C$ or better or concurrent enrollment.

EGR 270 Introduction to Digital Systems (3-2)
4 crs. Introduces computer engineering. Topics include representation of information, binary systems, Boolean algebra, switching circuits, combinational switching circuits, and sequential switching circuits, macro-circuits and wired and stored program processor concepts. IAI EGR 932L
Prerequisite: PHY 202 with a grade of C or better.

## ELT Electronics Engineering Technology

## ELT 101 DC Network Analysis (3-3)

4 crs.
Studies direct current (DC) resistive networks. Definitions, symbols and notations for electrical quantities are taught. Circuit properties and their applications to significant circuit configurations are examined. High school algebra is recommended.

## ELT 102 AC Network Analysis (3-3) 4 crs.

Examines steady state alternating current (AC), resistor-capacitor (RC) and resistor-inductor (RL) circuits. Also examines RC and RL single time constant circuits. Single phase and polyphase AC networks are also studied.
Prerequisite: ELT 101 and MTH 103 with grades of C or better, or consent of instructor.

## ELT 103 RF Network Analysis (3-3)

4 crs.
Examines basic radio frequency (RF) networks, series and parallel resonance, filters, selectivity and bandwidth, and impedance matching.
Prerequisite: ELT 102 with a grade of C or better, or consent of instructor.

## ELT 110 Introductory Electronics (3-3) 4 cr

Introduces fundamentals of electricity and magnetism. Covers basic electrical laws and principles. Presents electrical quantities, units, symbols and notation. Examines foundational electronic materials and components. Presents elementary DC (direct current) and AC (alternating current) network analysis, key semiconductor devices, and simple analog and digital circuits. Also covers electrical safety considerations, laboratory instrumentation and test and measurement techniques.

ELT 111 Semiconductor Devices and Circuits (1-2)
2 crs. Examines basic semiconductor component families and characteristics. Fundamentals of proper circuit operation and typical applications are further examined.
Prerequisite: ELT 110 with a grade of C or better, or consent of instructor.

## ELT 120 Introductory Industrial Electronics Maintenance

 (1-2)2 crs.
Introduces students to the fundamentals of industrial electronics maintenance. Provides an overview of the various technologies encountered in the field as they relate to industrial electronic control of buildings and facilities. This includes basic electrical and electromechanical components and machinery, motors and controls, electrical and electronic interfaces, and electronic controllers. Also covers fluid power and piping systems. Emphasis is placed on safety, installation and preventative maintenance. Use of tools, test instrumentation and the importance of record keeping will be discussed.

ELT 125 Fiber Optics (1-2)
2 crs.
Investigates optics for the purpose of working with communications, control and measurement systems. Principles of physical and geometric optics are presented.
ELT 135 Optics and Sensors (1-2)
2 crs.
Investigates sensor operation and application for a variety of functions: tactile, photo, fiber-optic, magnetic, thermal, sonic, pressure and vision systems.

ELT 140 Programmable Logic Controllers (1-2)
2 crs.
Examines the procedures and mechanisms by which programmable logic controller functions are used. Programming in ladder logic and controller code focuses on the direct application of a variety of input and output devices. Hardware, programming, peripherals and accessories are emphasized.

ELT 142 Electrical Wiring (1-2)
2 crs.
Introduces students to wiring topics as they relate to the residential electrical service. A safety review followed by terminology, principles, and test and measurement equipment use associated with residential alternating current (AC) power are examined. Emphasis is placed on the practical application, operation, installation and maintenance of low voltage control systems and single-phase AC power equipment and systems. Select portions of the National Electric Code are studied.
ELT 143 Advanced Electrical Wiring (1-2) 2 crs
Introduces students to advanced wiring topics as they relate to the commercial electrical service. A safety review followed by terminology, principles, and test and measurement equipment use associated with commercial alternating current (AC) power are examined. Emphasis is placed on the practical application, operation, installation and maintenance of low voltage control systems and single and three-phase AC power equipment and systems. Select portions of the National Electric Code are studied.

ELT 144 AC and DC Motors (1-2)
2 crs.
Introduces students to fractional horsepower motors for residential and commercial applications. A safety review followed by terminology, principles, and test and measurement equipment use associated with motors and motor controls are examined. Emphasis is placed on the practical application, operation, installation and maintenance of direct current (DC) motors and controls, and single three-phase alternating current (AC) motors and controls.

## ELT 145 Variable Frequency Drives (1-2) <br> 2 crs.

Introduces students to variable frequency drives (VFDs) as they pertain to residential and commercial motor control applications. A safety review followed by terminology, principles, test and measurement equipment use associated with VFDs and typical applications are examined. Emphasis is placed on the practical application, operation, installation and maintenance of VFDs.

ELT 146 Industrial Motor Controls (1-2) 2 crs.
Introduces students to industrial motor controls. Reviews solid state (or semiconductor) types and operation. Examines industrial solid state devices, motor starters and pilot devices, control circuitry for direct current (DC) and alternating current (AC) motors, motor drives, and solid state motor controllers. A safety review followed by terminology, principles, and test instrumentation use associated with these topics is also discussed. Emphasis is placed on practical application, operation, installation and maintenance.
Prerequisite: ELT 110 with a grade of C or better, or consent of instructor.

## ELT 147 Radio Frequency ID Systems (1-2) 2 crs

 Introduces students to Radio Frequency Identification (RFID) Systems. Topics include an overview of RFID systems and hardware, system lifecycles, frequency ranges, antennas, tags, interrogators, regulations and standards, and typical applications. Terminology, principles, and test and measurement equipment use associated with RFID systems are examined. Emphasis is placed on practical application, operation, installation and maintenance.
## ELT 150 Solar Power Generation Systems (1-2) 2 crs.

 Introduces students to solar power generation systems as they pertain to industrial, commercial and residential applications. Includes an overview of solar-to-electrical energy conversion, solar panels and collectors, energy storage, power supply and inverter operation, energy management and control, electrical interface regulations and standards and typical applications. Examines terminology, principles, and test and measurement equipment use associated with solar power. Emphasizes practical application, operation, installation and maintenance.ELT 151 Wind Power Generation Systems (1-2) 2 crs. Introduces students to wind power generation systems as they pertain to industrial, commercial and residential applications. Includes an overview of wind-to-electrical energy conversion, turbines and gear boxes, energy storage, power supply and inverter operation, energy management and control, electrical interface regulations and standards and typical applications. Examines terminology, principles, and test and measurement equipment use associated with wind power. Emphasizes practical application, operation, installation and maintenance.

## ELT 161 Industrial Control Applications (2-4)

4 crs.
Emphasizes an application with a project focus as the goal. This course is self-paced. The student is responsible for planning, organizing and assembling a project that integrates many of the following: computer, pneumatics, hydraulics, programmable logic controllers (PLCs), sensors, motion and data acquisition.

ELT 203 Digital Electronics (3-3)
4 crs.
Examines the building blocks of digital circuits. These
elements are then blended into topics and applications. Topics include Boolean algebra, Karnaugh mapping, counters and microprocessors.
Prerequisite: ELT 110 with a grade of C or better.
ELT 204 Analog Electronics (3-3) 4 crs. Examines electronic circuits using diodes, transistors and operational amplifiers. Applies linear equivalent circuits as an analysis tool. Studies amplifiers, feedback principles, and operational amplifier configurations as practical applications of the linear analysis techniques.
Prerequisite: ELT 111 with a grade of C or better, or consent of instructor.

ELT 207 Communications Systems (3-3) 4 crs. Introduces students to communications systems. The historical, technical and commercialization aspects of key technologies and inventions from the onset of early communications equipment to contemporary telecommunications systems are discussed. Covers systems, equipment, and radiating systems and radiation. Topical areas in these segments include wireline and wireless systems, modulation and demodulation, receivers, transmitters and transceivers, transmission lines, antennas, matching networks and wave propagation. Emphasizes system applications, operation and analysis.
Prerequisite: ELT 110 with a grade of C or better, or consent of instructor.

ELT 208 Advanced Communications Systems (3-3) 4 crs.
Focuses on the equipment aspects of wireless communications systems. Covers receiving and transmitting equipment, and radiating systems. Topical areas in these segments include super heterodyne receivers, transmitters and transceivers, analog vs. digital platforms, and software defined radios. Radiating systems involving transmission lines, antennas, matching networks and tower structures are also covered. Emphasizes equipment applications, operation and analysis.
Prerequisite: ELT 207 with a grade of $C$ or better, or consent of instructor.

ELT 215 Industrial Control Systems (3-3)
4 crs.
Introduces students to industrial control systems. Covers fluid power fundamentals, and pneumatic and hydraulic circuit theory. Examines the integration of optics, sensors, and various electronic control systems including programmable logic controller (PLC) and personal computer (PC) controllers. Infrared (IR) emitters and detectors, and laser systems are also examined. Introduces the application and control of automated robotic systems. The course culminates with a capstone team project involving the development, design, construction, presentation and ultimate demonstration of a fully operational automated industrial control system.
Prerequisite: ELT 110 or RAC 105 with a grade of C or better, or consent of instructor.

ELT 218 Microprocessors and Microcomputers (3-3) 4 crs. Examines basic microprocessor and microcomputer applications, operation and analysis.
Prerequisite: ELT 203 with a grade of C or better, or consent of instructor.

## ELT 281 Topics in Electronics Engineering Technology (1-0 <br> to 4-0) $1-4$ crs.

Examines selected problems or topics in electronics engineering technology. The specific course content and instructional methodology will vary from semester to semester depending on the material presented. A syllabus containing specific topics will be available with pre-registration materials each time the course is offered. This course may be repeated to a maximum of four credit hours.
Prerequisite: Consent of instructor.

## EMG Emergency and Disaster Management

EMG 101 Introduction to Emergency Management (3-0) 3 crs.
Provides a foundation overview of emergency management. Students will examine the need for emergency management, processes and elements involved in disaster mitigation, preparedness, response and recovery

EMG 103 Leadership, Influence, Decision Making and Problem Solving (3-0) influence styles, and to apply situational leadership behaviors in emergency management. The course content reinforces existing management skills required for building an emergency management system.
Prerequisite: Prior or concurrent enrollment in EMG 101 with a grade of $C$ or better.
EMG 107 Incident Management Systems (3-0) 3 crs.
Introduces students to the Emergency Management System and elements involved which include incident command, unified command, and incident action planning. Emergency management systems which will be examined will include the Incident Command System (ICS) and the National Incident Management System (NIMS). Managing post incident critiques and evaluations also will be explored.

EMG 131 Public Safety Dispatcher I (3-0)
3 crs. Introduces students to the field of emergency services dispatching and provides an overview of its components and responsibilities. As such, it will provide the foundation for statewide competency as a public safety telecommunicator as outlined by the Illinois Law Enforcement Training and Standards Board (ILETSB) in its Public Safety Telecommunicator Training and Standards document, Basic Level Training Curriculum (September 1996).

## EMG 150 Public Information, Education and Community

 Relations (3-0)3 crs.
Provides students with the necessary skills and knowledge in public information, education, community relations, communications and involved elements including writing, public speaking, and understanding the media. The course content will also introduce concepts of volunteer program utilization and maintenance.

## EMG 151 Emergency Management Policy and Planning

 (3-0)3 crs.
Provides students with the skills to develop plans and policy as an Emergency Management Specialist. Examines the concepts of writing an emergency operations plan and the elements necessary for inclusion in the plan (all-risk hazard planning). Prerequisite: EMG 103 with a grade of $C$ or better.

EMG 153 Hazard Analysis and Mitigation (3-0) 3 crs. Introduces students to various means of hazard analysis used to prioritize response activities, allocate resources, and specifically request other resources to save and sustain lives. Students will examine the need for mitigation programs and discuss the appropriate methods to implement various mitigation programs. Prerequisite: EMG 101 with a grade of $C$ or better.

EMG 155 Social Dimensions of Disaster (3-0) 3 crs. Introduces students to the various aspects of sociology and recovery from disasters. Topics will include aspects of a disaster such as behavioral and organizational responses to disasters as well as the impact of the media. Students will study the concept of building a disaster-resistant community. This course will also cover topics related to terrorism such as a terrorist sociological analysis, the dimension of terrorism.
Prerequisite: EMG 101 with a grade of C or better.

EMG 201 International Disaster Management (3-0) 3 crs.
Examines globally how disasters are on the increase, impacting communities and nations with grave social and economic consequences. Studies the international response to disasters which is convoluted, at times chaotic, and always complex. Students will learn about shifting socio-economic situations, unplanned urbanization, environmental degradation, climate variability and change, geological hazards, and the struggle for scarce natural resources. Because disasters increasingly impact the global economy and the sustainable development of developing countries, the student will learn how to apply international emergency disaster management.
Prerequisite: EMG 101 with a grade of C or better.
EMG 205 Crisis Exercise Design and Evaluation (3-0) 3 crs. Introduces students to different aspects of crisis exercise design and evaluation. Students will identify specific needs to adhere to federal or state directives pertaining to required exercises, to utilize proper training strategies and to identify performance gaps. The course will include exercise design and group dynamics, conducting an exercise, analyzing the results, conducting a critique and implementation of corrective actions and recommendations.
Prerequisite: EMG 151 and EMG 153 with grades of $C$ or better.
EMG 231 Public Safety Dispatcher II (3-0) 3 crs
Builds upon the foundation laid through EMG 131 and provides students with specific knowledge required to professionally handle emergency as well as non-emergency calls for service in the public safety environment. At the conclusion of this course, students will possess a basic understanding of the role, responsibility and equipment utilized by telecommunicators to accomplish their mission.
Prerequisite: EMG 131 with a grade of $C$ or better.

## EMG 251 Select Problems in Emergency Management

 (3-0)3 crs.
Exposes students to various aspects of select problems in emergency management including environmental, funding and political issues. Students will learn about local governments and jurisdictions, the political process, support agencies, crisis management for business and industry and contingency planning. This course will also address long-term incidents and professional development.
Prerequisite: EMG 101 with a grade of C or better.
EMG 253 Ideologies of Terrorism (3-0)
3 crs.
Examines the various analytical approaches to the study of terrorism. Students will be exposed to the ideologies and composition of known terrorist groups, review terrorist tactics and examine police and governmental responses to reduce or eliminate the incidence of terrorism.

EMG 299 Emergency Management Systems Practicum (0-5)

1 cr.
Provides practical emergency management experience in a supervised professional setting focused on the integration of theory and practice. Actual experience in various phases of emergency management will be provided through mutually agreed upon cooperative projects with government and industry. Prerequisite: Prior or concurrent enrollment in EMG 205, EMG 251 and EMG 253 with grades of $C$ or better.

## EMS Emergency Medical Services

EMS 110 Emergency Medical Technician Training (4-6) 7 crs.
Provides entry-level emergency medical care knowledge and skills associated with the delivery of Basic Life Support (BLS) as defined by the State of Illinois EMS Act and the EMS Rules. Meets all requirements of the Federal Department of Transportation EMT-B training curriculum and has been approved by the lllinois Department of Public Health (IDPH) Division of EMS and Highway Safety.
Prerequisite: Admission into either the Emergency Medical Services degree program or the EMT Basic certificate program.

EMS 210 Paramedic I - Preparatory (5-2) 6 crs.
Provides classroom training to enable students to become statecertified paramedics. Examines the role and responsibility of the paramedic in the health care delivery system, review of medical terminology, and medical, legal, ethical and regulatory issues. Includes an overview of the human body systems, indepth study of the respiratory system, principles of physiology, pathophysiology and pharmacology. Concludes with techniques for performing comprehensive physical examinations. (NOTE: Student must submit documentation of: (1) valid Illinois driver's license, (2) EMT Basic certification, including Cardiopulmonary Resuscitation (CPR), (3) EMT-B/I work experience of six months, (4) field experience agreement.)

Prerequisite: EMS 110 with a grade of C or better and admission into the Emergency Medical Services degree program or the Paramedic certificate program.
EMS 211 Paramedic II - Medical Emergencies I (5-2) 6 crs. Provides an in-depth study of the pulmonary and cardiac anatomy and physiology with an emphasis on the structure, function and electrical conduction system of the heart, pathophysiology, and emergency management of acute cardiac syndromes. Mastery of 3-lead electrocardiography (ECG) interpretation and drugs and interventions used during emergency cardiac care including transcutaneous pacing, cardioversion, and defibrillation. An introduction of 12-lead ECG monitoring and interpretation is presented.

## Prerequisite: EMS 210 with a grade of C or better.

EMS 212 Paramedic II - Medical Emergencies II (5-8) 6 crs. Presents acute and chronic disorders of the endocrine, gastrointestinal, genitourinary, neurological, and hematopoietic systems and their emergency management. Covers the anatomy and physiology of the female reproductive system, gynecological emergencies, sexual assaults, and emergency childbirth, complications of pregnancy and delivery, and care/ resuscitation of the neonates. Includes pediatric medical and traumatic emergencies with emphasis on the variations in pediatric presentations of the same disorders studied in adults. Also included are toxicology and substance abuse, environmental emergencies, and infectious and communicable diseases. Prerequisite: EMS 211 with a grade of C or better.

## EMS 213 Paramedic III - Trauma Emergencies and Special

 Clients (2-11)Introduces students to the forces that produce injury on each body system and to related assessment of Basic Life Support (BLS) techniques. Establishes the identification and management techniques of various medical emergencies including pediatric and neonatal transport, special patient populations, extricationrescue techniques, and transport techniques used in various settings including Advanced Life Support (ALS) response to home care patients. Introduces students to behavioral and psychiatric emergencies. Demonstrates concepts related to medical incident command and disaster management for mass casualty incidents and crime scene responses.
Prerequisite: EMS 212 with a grade of C or better.

EMS 214 Paramedic - Hospital Internship (0-13)
2 crs.
Provides a minimum of 232 hospital clinical rotation hours with a variety of experiences and situations that challenge and encourage the student to achieve a safe, entry-level mastery of EMS skills in a controlled environment and under the direct supervision of a hospital assigned preceptor. Rotations include the following areas: emergency room, critical care units, labor and delivery rooms, operating rooms, pediatric units, psychiatric units/ mental health units, IV therapy, and respiratory therapy.
Prerequisite: EMS 210 with a grade of C or better.
EMS 215 Paramedic - Field Internship (0-20) 3 crs. Integrates the contextual, integrative and adaptive theoretical concepts and practical skills using critical judgment skills acquired during the didactic and hospital clinical rotation. The 384 hours of actual ambulance service is under the direct supervision of a certified paramedic, and is divided into two phases of ascending mastery and accountability with each phase having a minimum number of patient care contacts and competencies. (NOTE: This course has an aditional fee of $\$ 1500$ to cover the cost of supervision.)
Prerequisite: EMS 214 with a grade of $P$.
EMS 216 Paramedic Seminar (3-0) 3 crs.
Explores current issues in emergency medical technology and the emergency medical system. Weekly seminars allow the provisional paramedic to integrate and apply all didactic concepts to actual studies; to exchange experiences with other provisional paramedics; and to gain insight into the actual responsibilities of working on a paramedic ambulance. Prepares students to challenge the final written and practical examinations as well as the State of Illinois Licensure examination for paramedics. Prerequisite: EMS 214 with a grade of $P$.

## ENG English

ENG 001 Read, Write and Think Critically (3-2) 4 crs.
Prepares students for the rigors of college by developing the skills necessary for analyzing and synthesizing information. In this writing intensive course, students will read, analyze, discuss and critically respond to fiction and non-fiction prose. Activities include analytical writing, composition of paragraphs and essays, active reading, annotation, group learning, and grammar instruction. Carries no transfer credit. NOTE: This course is intended for students who place into both ENG 098 and RDG 090.
Prerequisite: Required placement exam scores for ENG 098 and RDG 090.

ENG 080 Writing Skills I-Deaf/Hard-of-Hearing (4-0) 4 crs. Introduces grammar consistent with deaf and hard-of-hearing students' distinct learning needs. Verb tense agreement, article and proposition usage, grammar in context and other problems common to deaf/hard-of-hearing students will be emphasized. Strategies to self-correct and fully develop sentence and paragraph structure will be central to this course. Practical applications of writing skills will be stressed through the use of vocational related materials. Carries no transfer credit.

ENG 085 Writing Skills II-Deaf/Hard-of-Hearing (4-0) 4 crs. Continues the development of writing skills from ENG 080. Writing strategies and paragraph development will be emphasized. Grammar topics introduced in ENG 080 will be reviewed and more complex grammar introduced. American Sign Language (ASL) will be used in the classroom to improve the students' contextual and linguistic understanding. Practical applications of writing skills will be stressed. Carries no transfer credit.
Prerequisite: ENG 080 with a grade of C or better.

ENG 098 Composition (3-0)
3 crs.
Provides instruction in developing basic writing skills essential for effective written discourse by giving students the conceptual tools necessary for developing a basic framework for writing. Prepares students for entry into ENG 100. Carries no transfer credit
Prerequisite: English placement exam.
Recommended Corequisite: RDG 090.
ENG 100 Composition (3-0)
3 crs.
Develops skills in reading comprehension and in writing standard effective English through the study of language, grammar, sentence structure, and the paragraph and essay form. Activities include the analytical reading of paragraphs and short essays, the writing of paragraphs and essays, and practice with usage, diction, semantics, basic mechanics and sentencing. This course does not meet the General Education requirements for the A.A. and A.S. degrees.
Prerequisite: ENG 098 and either RDG 090 or RDG 099 with grades of C or better, or ENG 001 with a grade of C or better, or satisfactory scores in both English and Reading placement exams.

ENG 101 Composition (3-0) 3 crs.
Emphasizes the writing of expository prose. Introduction to the critical reading of nonfiction prose. IAI C1 900
Prerequisite: ENG 100 and RDG 099 with grades of C or better, an ACT English score of 19 or more and an ACT reading score of 20 or more, or required scores on the writing and reading placement tests. ESL students need one of the following options: ESL 073 and ESL 074 with grades of B or better; ESL 073 with required writing placement test score; or ESL 074 with required reading placement test score.

ENG 102 Composition (3-0)
3 crs.
Continues ENG 101. Reading literature and writing of various
types of prose. Introduces methods used in writing investigative papers. IAI C1 901R
Prerequisite: ENG 101 with a grade of C or better, or consent of instructor or department chair.

ENG 103 Technical and Report Writing (3-0) 3 crs. Introduces the various types of writing and communication used in business and technology. Includes instructions, procedures, abstracts, proposals, visuals and reports.
Prerequisite: ENG 101 with a grade of C or better, or consent of instructor or department chair.

## ENG 130 Business Writing (3-0)

3 crs.
Teaches formal and psychological aspects of business correspondence. Introduction to various kinds of business letters, memoranda and reports. Improvement of grammar, spelling and word usage.
Prerequisite: Satisfactory score on English placement test or ENG 100 with a grade of C or better.

ENG 200 Professional Writing: Grammar and Style (3-0) 3 crs. Investigates the elements of English grammar, usage, and style important for effective academic and public writing, such as letters, essays, reports and proposals.
Prerequisite: ENG 101 with a grade of C or better, or consent of instructor or department chair.

## ENG 201 Advanced Composition (3-0)

3 crs.
Teaches additional skills in critical reading and thinking, the forms of public expository and argumentative writing and the elements of an effective public writing style.
Prerequisite: ENG 102 with a grade of C or better, or consent of instructor.

ENG 220 Creative Writing (3-0)
3 crs.
Provides guided practice in various types of creative writing. Emphasizes skills common to creative expression, including description, plotting, narration, dialogue, and verse.
Prerequisite: ENG 102 with a grade of C or better, or consent of instructor.

ENG 221 Writing Fiction (3-0)
3 crs.
Explores the art and craft of fiction-writing in depth. Students will examine the writing process in terms of story form, structure, pacing, writing vividly, using varied sentence patterns, building characterization, creating appropriate settings in time and place, using various points of view, developing themes, exploiting style and various poetic devices in prose, and practicing the crucial step of revision. Students will participate in peer workshops.

ENG 222 Writing Poetry (3-0)
3 crs.
Provides language-interested students with practice in writing fixed-form poetry (English and Italian sonnets, villanelles, and more) and free-form poetry. Includes a detailed introduction to the rhythms of poetry in English, including stress patterns (iambic, trochee, anapest, etc.) and patterns of line length (trimeter, tetrameter, pentameter, etc.). Asks students to read diverse models of quality poetry in its various forms. Encourages each student through drafting and revision to develop a uniquely personal writing voice and style and to learn to express him/ herself and evaluate the world at large--whether in tightly structured stanzas or in free-verse narratives--in genuinely imaginative ways.

ENG 230 Topics in English (1-0 to 3-0)
1-3 crs.
Examines selected eras or topics in the various fields of English and/or composition studies. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A topic-specific syllabus containing additional information will be available in the Liberal Arts Division Office with other pre-registration materials each time the course is offered. This course may be repeated to a maximum of 12 credit hours.

## ESL English as a Second Language

ESL 005 Topics in English as a Second Language/Low Intermediate (0.5-0 to 4-0)
0.5-4 crs.

Focuses on academically oriented topics in English as a Second Language (ESL) at the low intermediate level. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with registration materials each time that the course is offered. This course may be repeated up to a maximum of four credit hours. Carries no transfer credit.
Prerequisite: ESL 020 or ESL 026 with a grade of C or better, OR required placement test scores.

ESL 006 ESL: Guided Language Lab Instruction (0-2) 1 cr. Develops English language skills for beginning to advanced students of English as a Second Language. Following consultation with the instructor, students work independently in the language laboratory on the skills of their choice and at the recommended level of proficiency. The instructor provides further support via in-person meetings, telephone or e-mail. Carries no transfer credit.
Prerequisite: Required placement test scores, no permission needed.

## ESL 007 Topics in English as a Second Language/High Intermediate (0.5-0 to 4-0) <br> 0.5-4 crs.

Focuses on academically oriented topics in English as a Second Language (ESL) at the high intermediate level. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with registration materials each time that the course is offered. This course may be repeated up to a maximum of four credit hours. Carries no transfer credit.
Prerequisite: ESL 053 and ESL 063 with grades of C or better, OR required placement test scores.

ESL 008 Grammar Review for Levels I and II (2-0) 2 crs. Focuses on verb tenses, nouns, and determiners for low intermediate students of English as a Second Language. Reviews the form and function of the grammatical patterns. Includes practice in recognizing and accurately producing the patterns, with focus on listening and speaking. Carries no transfer credit.
Prerequisite: ESL 020, ESL 024 or ESL 026 with a grade of C or better, OR required placement test scores.

ESL 009 Grammar Review for Levels III and IV (2-0) 2 crs. Focuses on verb tenses and modals and related structures for intermediate students of English as a Second Language. Reviews the form and function of the grammatical patterns. Includes practice in recognizing and accurately producing the patterns in spoken and written forms. Carries no transfer credit.
Prerequisite: ESL 040 with a grade of C or better and required ESL Writing test score, OR ESL 046 with a grade of C or better and required ESL Writing test score, OR ESL 044 and ESL 056 with a grade of C or better, OR required placement test scores.

ESL 010 ESL: Core Language Skills I (1-0 to 6-0) 1-6 crs. Focuses on grammatical structures and patterns of English for high beginning English as a Second Language student. Emphasizes communicative activities. Includes listening, speaking, reading and writing skills. Carries no transfer credit. Prerequisite: Required placement test scores.

ESL 011 ESL Listening/Speaking I-IEP (2-0) 2 crs.
Develops listening and speaking and conversation skills for high beginning English as a Second Language (ESL) students in an Intensive English Program (IEP) who read and write proficiently in their own languages. Includes pronunciation skills. Carries no transfer credit.
Prerequisite: Required placement test scores

## ESL 017 ESL Conversation I-IEP (4-0)

4 crs.
Focuses on the development of conversation skills for high beginning English as a Second Language (ESL) students in an Intensive English Program (IEP) who read and write proficiently in their native languages. Concentrates on areas necessary for successful communication in a variety of American settings. Carries no transfer credit.
Prerequisite: ESL 010 with a grade of C or better OR required placement test scores.
ESL 018 ESL: Conversation I (2-0)
2 crs.
Focuses on the development of conversation skills for highbeginning English as a Second Language students who read and write proficiently in their native languages. Concentrates on areas necessary for successful communication in a variety of American settings. Carries no transfer credit.
Prerequisite: Required placement test scores.
ESL 020 ESL: Core Language Skills II (1-0 to 6-0) 1-6 crs. Continues grammatical structures and patterns of English for high beginning English as a Second Language student. Emphasizes communicative activities. Includes listening, speaking, reading and writing skills. Carries no transfer credit.
Prerequisite: ESL 010 or ESL 026 with a grade of C or better, OR required placement test scores.

ESL 024 ESL: Reading and Writing I (4-0)
4 crs.
Develops reading and writing skills for high beginning English as a Second Language student who read and write proficiently in their native languages. Includes sentence patterns and paragraph structure. Introduces multi-paragraph compositions. Carries no transfer credit.
Prerequisite: ESL 010 with a grade of C or better, OR required placement test scores.

ESL 026 ESL: Grammar I (4-0)
4 crs.
Focuses on grammatical structures and patterns of English for high beginning English as a Second Language students who read and write proficiently in their native languages. Emphasizes listening comprehension and speaking ability. Carries no transfer credit.
Prerequisite: ESL 010 with a grade of C or better, OR required placement test scores.

ESL 027 ESL Conversation II-IEP (4-0)
4 crs.
Focuses on the development of conversation skills for low intermediate English as a Second Language (ESL) students in an Intensive English Program (IEP) who read and write proficiently in their native languages. Concentrates on areas necessary for successful communication in a variety of American settings. Carries no transfer credit.
Prerequisite: ESL 017 with a grade of C or better or required placement test scores.

ESL 028 ESL: Conversation II (2-0)
2 crs.
Continues the development of conversation skills for high beginning English as a Second Language student who read and write proficiently in their native languages. Concentrates on areas necessary for successful communication in a variety of American settings. Carries no transfer credit.
Prerequisite: ESL 010 or ESL 018 with a grade of C or better, OR required placement test scores.

ESL 030 ESL: Core Language Skills III (1-0 to 6-0) 1-6 crs.
Focuses on increasingly complex grammatical structures and patterns of English for intermediate English as a Second Language students. Emphasizes communicative activities. Includes listening, speaking, reading and writing skills. Carries no transfer credit.
Prerequisite: ESL 020 with a grade of C or better, OR ESL 026 with a grade of C or better and required ESL Writing test score, OR required placement test scores.

ESL 032 ESL Conv/Lstng/Spkg III-IEP (3-0) 3 crs.
Develops listening and speaking and conversation skills for intermediate English as a Second Language (ESL) students in an Intensive English Program (IEP). Focuses on development of conversation skills. Concentrates on areas necessary for successful communication in a variety of American settings. Includes pronunciation skills. Carries no transfer credit.
Prerequisite: ESL 027 or ESL 045 with a grade of C or better OR required placement test scores.

ESL 034 ESL: Reading II (4-0)
4 crs.
Develops reading skills for low-intermediate English as a Second Language students. Focuses on the reading of narratives. Carries no transfer credit
Prerequisite: ESL 024 or ESL 030 with a grade of C or better, OR required placement test scores.

ESL 038 ESL: Conversation III (2-0)
2 crs.
Focuses on the development of conversation skills for lowintermediate English as a Second Language students who read and write proficiently in their native languages. Concentrates on areas necessary for successful communication in a variety of American settings. Carries no transfer credit.
Prerequisite: ESL 020 or ESL 028 with a grade of C or better, OR required placement test scores.

ESL 039 ESL: Conversation IV (2-0)
Continues the development of conversation skills for lowintermediate English as a Second Language students who read and write proficiently in their native languages. Concentrates on areas necessary for successful communication in a variety of American settings. Carries no transfer credit.
Prerequisite: ESL 030 or ESL 038 with a grade of C or better, OR required placement test scores.

ESL 040 ESL: Core Language Skills IV (1-0 to 6-0) 1-6 crs.
Continues increasingly complex grammatical structures and patterns of English for intermediate English as a Second Language students. Emphasizes communicative activities. Includes listening, speaking, reading and writing skills. Carries no transfer credit.
Prerequisite: ESL 026 and ESL 034, OR ESL 030 or ESL 044 with grades of C or better, OR required placement test scores.

ESL 043 ESL: Writing II (4-0)
4 crs.
Focuses on the writing of paragraphs. Designed for lowintermediate English as a Second Language students. Continues study of sentence patterns and introduces editing skills. Carries no transfer credit.
Prerequisite: ESL 024, ESL 030 or ESL 046 with a grade of C or better, OR required placement test scores.

ESL 044 ESL: Writing II Intensive Program (2-0) 2 crs. Focuses on the writing of paragraphs. Designed for lowintermediate English as a Second Language students. Introduces sentence patterns and editing skills. Carries no transfer credit.
Prerequisite: ESL 024, ESL 030 or ESL 046 with a grade of C or better, OR required placement test scores.

## ESL 045 ESL Listening/Speaking II-IEP (1-0)

Continues the development of listening and speaking skills for low-intermediate English as a Second Language (ESL) students in an Intensive English Program (IEP). Includes pronunciation skills. Carries no transfer credit.
Prerequisite: ESL 011 with a grade of C or better OR required placement test scores.

ESL 046 ESL: Grammar II (4-0) 4 crs.
Focuses on grammatical structures and patterns of English for low-intermediate English as a Second Language students. Includes practice of patterns introduced previously. Emphasizes the recognition and production of grammatical structures and how these structures affect meaning in both spoken and written English. Carries no transfer credit. Prerequisite: ESL026 or ESL030 with a grade of " C " or better, or required placement test scores.

ESL 048 ESL: American Culture I (2-0)
2 crs.
Explores contemporary American culture for intermediate English as a Second Language students. Focuses on areas necessary for successful communication in American society including nonverbal communication, classroom practices and work values. Emphasizes and enhances listening comprehension and speaking skills. Carries no transfer credit.
Prerequisite: ESL 030 or ESL 044, OR ESL 026 and ESL 034 with grades of C or better, OR required placement test scores.

ESL 050 ESL: Core Language Skills V (1-0 to 6-1) 1-6 crs. Focuses on complex grammatical structures and patterns of English for high intermediate English as a Second Language students. Emphasizes communicative activities. Includes listening, speaking, reading and writing skills. Carries no transfer credit. Prerequisite: ESL 040 or ESL 046 with a grade of $C$ or better, OR required placement test scores.

ESL 053 ESL: Reading III (4-0)
4 crs.
Develops reading techniques for intermediate English as a
Second Language students. Focuses on the reading of a variety of materials. Promotes independent reading in English. Carries no transfer credit.
Prerequisite: ESL 034 with a grade of $C$ or better and required ESL Writing test score, OR ESL 044 with a grade of C or better and required ESL Reading Compass score, OR ESL 034 and ESL 044 with a grade of C or better, OR ESL 050 with a grade of $C$ or better, OR required placement test scores.

ESL 056 ESL: Grammar III (4-0) 4 crs.
Focuses on the study of grammatical structures and patterns of English for intermediate English as a Second Language students. Includes practice of patterns introduced previously. Emphasizes the recognition and production of grammatical structures and how these structures affect meaning in both spoken and written English. Carries no transfer credit.
Prerequisite: ESL 046 or ESL 050 with a grade of C or better, OR required placement test scores.

ESL 057 ESL: Reading IV (4-0)
4 crs.
Develops reading techniques for high intermediate English as a Second Language students. Focuses on the reading of a variety of materials in their original form. Promotes independent reading in English. Carries no transfer credit.
Prerequisite: ESL 044 with a grade of C or better and required ESL Reading Compass score, OR ESL 053 with a grade of C or better and required ESL Writing test score, OR ESL 044 and ESL 053 with a grade of C or better, OR ESL 053 and ESL 063 with a grades of $C$ or better, OR ESL 063 with a grade of $C$ or better and required standard Reading Compass score, OR required placement test scores.

ESL 058 ESL: Spelling Strategies (2-0)
2 crs.
Focuses on the spelling system of American English for intermediate students of English as a Second Language who are having difficulty with American English spelling. Includes memory techniques, dictionary use, study of word parts and spelling aids in word processing programs. Carries no transfer credit.
Prerequisite: ESL 030 with a grade of C or better and required ESL Writing test score, OR ESL 034, ESL 040, ESL 044 or ESL 046 with a grade of $C$ or better, OR required placement test scores.

ESL 059 ESL: Conversation V (2-0)
2 crs.
Focuses on development of conversation skills for intermediate English as a Second Language students. Concentrates on areas necessary for successful communication in a variety of American settings. Carries no transfer credit.
Prerequisite: ESL 039 or ESL 040 with a grade of $C$ or better, OR required placement test scores.

ESL 060 ESL: Core Language Skills VI (1-0 to 6-0) 1-6 crs.
Continues complex grammatical structures and patterns of English for high intermediate English as a Second Language students. Emphasizes communicative activities. Includes listening, speaking, reading and writing skills. Carries no transfer credit. Prerequisite: ESL 050 or ESL 056 with a grade of C or better, OR required placement test scores.

ESL 063 ESL: Writing III (4-0) 4 crs.
Develops academic writing for intermediate English as a Second Language students. Emphasizes expository paragraphs and introduces essays. Carries no transfer credit.
Prerequisite: ESL 044 with a grade of C or better and required ESL Reading Compass score, OR ESL 044 with a grade of C or better and required standard Reading Compass score, OR ESL 060 with a grade of C or better, OR ESL 034 and ESL 044 with grades of $C$ or better, OR ESL 034 with a grade of $C$ or better and required ESL Writing test score, OR required placement test scores.

ESL 067 ESL: Writing IV (4-0)
4 crs.
Develops academic writing for high intermediate English as a Second Language students. Emphasizes expository essays. Carries no transfer credit.
Prerequisite: ESL 034 with a grade of C or better and required ESL Writing test score, OR ESL 063 with a grade of C or better and required ESL Reading Compass score, OR ESL 063 with a grade of $C$ or better and required standard Reading Compass score, OR ESL 034 and ESL 063 with grades of C or better, OR ESL 053 and ESL 063 with grades of C or better, OR required placement test scores.

## ESL 072 ESL Conv/Lstng/Spkg IV-IEP (3-0)

3 crs.
Develops listening and speaking and conversation skills for high intermediate English as a Second Language (ESL) students in an Intensive English Program (IEP). Includes communication practice in a variety of American settings and pronunciation skills. Carries no transfer credit.
Prerequisite: ESL 032 with a grade of "C" or better OR required placement test scores.

## ESL 073 ESL: Reading V (4-0)

4 crs.
Develops reading techniques for advanced English as a Second Language students. Focuses on the reading of college textbooks and academic discussion of literature. Carries no transfer credit. Prerequisite: ESL 057 with a grade of C or better and required ESL Writing test score, OR ESL 063 with a grade of C or better and required ESL Reading Compass score, OR ESL 057 and ESL 063 with grades of C or better, OR ESL 057 and ESL 067 with grades of C or better, OR ESL 067 with a grade of $C$ or better and required standard Reading Compass score, OR required placement test scores.

ESL 074 ESL: Writing V (4-0)
4 crs.
Focuses on academic writing for advanced English as a Second Language students. Emphasizes expository essays. Carries no transfer credit.
Prerequisite: ESL 053 with a grade of C or better and required ESL Writing test score, OR ESL 067 with a grade of C or better and required ESL Reading Compass score, OR ESL 067 with a grade of $C$ or better and required standard Reading Compass score, OR ESL 053 and ESL 067 with grades of $C$ or better, OR ESL 057 and ESL 067 with grades of $C$ or better, OR required placement test scores.

## ESL 075 ESL: Conversation VI (2-0)

2 crs.
Focuses on the development of conversation skills for high intermediate English as a Second Language students. Concentrates on areas necessary for successful communication in a variety of American settings. Carries no transfer credit.
Prerequisite: ESL 050 or ESL 059 with a grade of $C$ or better. OR required placement test scores.

## ESL 076 ESL: Grammar IV (4-0)

4 crs.
Focuses on grammatical structures and patterns of English for high- intermediate English as a Second Language students. Includes practice of patterns introduced previously. Emphasizes the recognition and production of grammatical structures and how they affect meaning in both spoken and written English. Carries no transfer credit.
Prerequisite: ESL 056 with a grade of C or better, OR required placement test scores.

## ESL 077 ESL: Advanced Vocabulary I (2-0)

2 crs.
Focuses on the vocabulary of formal American English speech and writing for advanced English as a Second Language students. Emphasizes words and expressions associated with academic style and register. Carries no transfer credit.
Prerequisite: ESL 053, ESL 056, ESL 060 or ESL 063 with a grade of $C$ or better, OR required placement test scores.

ESL 078 ESL: American Culture II (2-0)
2 crs. Explores contemporary American culture for advanced English as a Second Language students. Focuses on areas necessary for successful communication in American society including basic American values and the roles of government and the family. Emphasizes and enhances listening comprehension and speaking skills. Carries no transfer credit.
Prerequisite: ESL 053, ESL 056, ESL 060 or ESL 063 with a grade of $C$ or better, OR required placement test scores.

ESL 079 Self-Study for the TOEFL (0-2) 1 cr .
Focuses on developing skills in vocabulary recognition, listening, speaking, reading and writing in English for non-native speakers who plan to study in colleges and universities where English is the language of instruction. Familiarizes students with the test-taking skills necessary to be successful on the IBT TOEFL (Internetbased Test of English as a Foreign Language). Carries no transfer credit.
Prerequisite: ESL 053, ESL 056 or ESL 063 with a grade of C or better, OR required placement test scores.

ESL 085 ESL: Pronunication Skills (2-0)
2 crs.
Focuses on improvement of pronunciation skills. Designed for advanced English as a Second Language students. Emphasizes connected speech, including such features as sounds, stress, intonation, and timing. Carries no transfer credit.
Prerequisite: ESL 053, ESL 056, ESL 060 or ESL 063 with a grade of C or better, OR required placement test scores.

ESL 086 ESL: Editing Skills (2-0)
2 crs.
Provides intensive writing practice with a focus on editing skills for advanced English as a Second Language students. Reviews essay development, mechanics and the features of American English grammatical structure that are most difficult for ESL students. Carries no transfer credit.
Prerequisite: ESL 053 with a grade of C or better and required ESL Writing test score; or ESL 067 with a grade of $C$ or better and required ESL Reading Compass score; or ESL 067 with a grade of C or better and required standard Reading Compass score; or ESL 053 and ESL 067 with grades of C or better; or ESL 057 and ESL 067 with grades of C or better; or required ESL placement test scores.

ESL 087 ESL: Advanced Vocabulary II (2-0)
2 crs.
Focuses on the vocabulary of informal American English speech and writing for advanced English as a Second Language students. Emphasizes the high-frequency idiomatic expressions that are most troublesome for advanced ESL students. Carries no transfer credit.
Prerequisite: ESL 053, ESL 056, ESL 060 or ESL 063 with a grade of $C$ or better, OR required placement test scores.

ESL 089 Preparation for the TOEFL (2-0) 2 crs. Develops advanced skills in vocabualry recognition, listening, speaking, reading and writing in English for non-native speakers who plan to study in colleges and universities where English is the language of instruction. Familiarizes students with the test-taking skills necessary to be successful on the IBT TOEFL (internetbased Test of English as a Foreign Language). Carries no transfer credit.
Prerequisite: ESL 056 and either ESL 057 or ESL 067 with grades of $C$ or better, OR required placement test scores.

ESL 096 ESL: Grammar V (4-0) 4 crs.
Focuses on grammatical structures and patterns of English for advanced English as a Second Language students. Includes practice of patterns introduced previously. Emphasizes sentence patterns of formal written English. Carries no transfer credit. Prerequisite: ESL 076 with a grade of C or better, OR required placement test scores.

ESL 098 ESL: Listening and Speaking VIII (2-0) 2 crs. Focuses on listening and speaking skills specific to the American college classroom for advanced English as a Second Language students. Includes note taking skills, class discussion practice and formal speaking. Carries no transfer credit.
Prerequisite: ESL 060, ESL 076 or ESL 085 with a grade of C or better, OR required placement test scores.

ESL 099 ESL: Writing--research Paper (2-0) 2 crs. Focuses on research skills and preparation of the American research paper for advanced English as a Second Language students. Reviews essay development. Carries no transfer credit. Prerequisite: ESL 067 with a grade of C or better and required ESL Reading Compass score, or ESL 053 and ESL 067 with grades of C or better, or required placement test scores.

## ESP English for Special Purposes

ESP 061 ESL: Skills for the Health Care Field (4-0) 4 crs. Focuses on the exploration of various health care fields, English language skills, and aspects of American culture specific to the field for English as a Second Language (ESL) students at the high intermediate level. Includes reading skills, idiomatic expressions, and vocabulary related to healthcare careers in both written and verbal English. Carries no transfer credit.
Prerequisite: ESL 053 and ESL 063 with grades of C or better, OR required placement test scores.

ESP 071 ESL: Business Communication Skills (4-0) 4 crs. Focuses on business English skills for English as a Second Language (ESL) students at the high intermediate level. Includes phone skills, writing e-mail and business letters, and using business phrases, idioms, and vocabulary in both written and verbal English. Carries no transfer credit.
Prerequisite: ESL 053 and ESL 063 with grades of C or better, OR required placement test scores.

## FAS Fashion Design

## FAS 100 Industrial Sewing Methods (1-4) <br> 3 crs.

Introduces students to the use and care of industrial sewing equipment, notion and supplies. Presents instruction in basic sewing techniques and their application to garment construction. (NOTE: This course is intended for students with little or no sewing experience.)

FAS 101 Flat Pattern Design and Draping I (1-4) 3 crs. Introduces basic industrial techniques of pattern making and draping. Variety of slopers (bodices, skirts, sleeves, etc.) developed. Accuracy and professional standards stressed. Pattern tested in muslin for fit.
Prerequisite: FAS 113 with a grade of C or better, or mastery of basic sewing as demonstrated through Fashion Department testing. Contact program coordinator for additional information.

FAS 102 Flat Pattern Design and Draping II (1-4) 3 crs. Continues development of basic sloper set. Manipulates basic sloper set to create original design. Patterns tested in muslin for fit. Garment is constructed from corrected patterns.
Prerequisite: FAS 101 and FAS 103 with a grade of $C$ or better.
FAS 103 Apparel Design and Construction I (1-4) 3 crs.
Introduces principles of using the basic sloper set to develop patterns for original designs. Professional design room techniques.
Corequisite: FAS 101 or consent of instructor.
FAS 104 Apparel Design and Construction II (1-4) 3 crs. Develops patterns from basic sloper set. Actual construction of finished garments. Emphasis on styling, fit and professional finishing.
Prerequisite: FAS 103 with a grade of C or better.
Corequisite: FAS 102

FAS 105 Fashion Design Illustration I (1-4) 3 crs. Introduces basic fashion sketching (front, back and side views, and original design). Studies the relationship of figure and garment. Emphasizes development of individual style, basic layout and presentation.

FAS 107 Textiles I (1-4)
3 crs.
Studies basic design and color principles in development of creative fabrics. General analysis and identification of fabrics and employment of various methods such as weaving, printing and dyeing.

FAS 108 Textiles II (1-4)
3 crs.
Continues FAS 107. Techniques in fabric construction and surface design are studied.
Prerequisite: FAS 107 with a grade of C or better.
FAS 109 Fashion Arts and Design (1-4)
3 crs.
Focuses on theory and principles of design for fashion, and familiarizes the student with major fabric names and constructions. Studies the use of unusual materials in design and applies those materials to individual projects. Studies the influence of present-day cultural trends in the field of design. Prerequisite: FAS 104 with a grade of C or better.

FAS 110 Costume History (2-2)
3 crs.
Introduces the elements of design and color in historical perspective. Surveys historical periods of time focusing on costumes. Examines the influences of social, political and economic forces on fashion in these periods.

FAS 111 Twentieth Century Costume and Trends (3-0) 3 crs. Presents an overview of fashion history and current trends in the 20th century. Includes fashion design, merchandising and factors which influence fashion from the merchandiser's point of view such as arts, technology and socioeconomic aspects.
Prerequisite: FAS 110 with a grade of C or better
FAS 112 Fashion Basics (3-0)
Presents fashion merchandise through evaluation of fashion products. Develops awareness of construction, as well as workmanship and design elements, such as fabric, color, silhouette and taste.

FAS 113 Advanced Industrial Sewing Methods (1-4) 3 crs. Focuses on application and mastery of basic sewing skills in pattern and fabric recognition and problem solving related to individual creative design. Emphasis on technology, technical accuracy and appropriate use of selected materials and supplies. (NOTE: This course is intended for students with basic sewing skill and machine proficiency.)
Prerequisite: FAS 100 with a grade of C or better or placement as demonstrated through Fashion Design Department testing. Contact program coordinator for additional information.

## FAS 116 Fashion Industries Career Practicum and Seminar (1-10) <br> 3 crs.

Studies an overview of career and employment possibilities in the fashion businesses and industries. Places emphasis on individual career path selections through interest testing and career counseling. (NOTE: Concurrent employment of ten hours or more in a fashion related field is required. Contact program coordinator for additional information.)

FAS 117 Textiles Studio I (0-4) 2 crs.
Introduces students to methods of fabric construction and surface design techniques, such as weaving, knitting, felting, beading, embroidery, appliqué, and fabric printing.
Corequisite: FAS107
FAS 118 Textiles Studio II (0-4)
Continues the study of fabric construction and surface design techniques, such as weaving, knitting, felting, beading, embroidery, appliqué, and fabric printing.
Prerequisite: FAS117 with a grade of C or better.

FAS 125 Product Development I (1-4) 3 crs. Introduces students to the first two stages of the product development process: planning the line and creating the design concept. Projects are individualized and may include apparel, millinery, handbags, accessories or knitwear.
Prerequisite: FAS107 with a grade of C or better.
FAS 135 Product Development II (1-4) 3 crs. Continues the stages of product development in design and planning production. Samples are made and used to determine cost of production. Projects are individualized and may include apparel, millinery, handbags, accessories, or knitwear.
Prerequisite: FAS 125 with a grade of C or better.
FAS 201 Flat Pattern Design and Draping III (1-4) 3 crs. Continues advanced development of basic sloper set, including coat and suit slopers, basics of grading (sizing). Patterns tested in muslin for fit and accuracy.
Prerequisite: FAS 102 and FAS 104 with a grades of C or better. Corequisite: FAS 203.

FAS 203 Advanced Diversified Apparel Design I (1-4) 3 crs. Develops patterns for the translation of original designs into completed garments. Includes visits to manufacturers and speakers from industry.
Prerequisite: FAS 103 and FAS 104 with grades of C or better. Corequisite: FAS 201.
FAS 204 Advanced Diversified Apparel Design II (2-4) 4 crs. Continues FAS 203. Works on collection of individual design and actual construction of coordinated garments. Course requirement includes garment entry and participation in annual fashion show. Prerequisite: FAS 201 and 203 with grades of C or better.

FAS 208 Computer-Aided Patternmaking (2-3) 3 crs. Introduces student to the PAD Pattern CAD/CAM Design System. Students learn the general technical terminology and CAD tools to create and modify patterns.
Prerequisite: FAS104 with a grade of C or better.
FAS 210 Fashion Design Illustration II (1-4) 3 crs.
Emphasizes work on a professional studio level. Focuses on work sketches as well as finished art. Studies illustration for advertising, publicity, promotion and display. Preparation of professional portfolio.
Prerequisite: FAS 105 with a grade of $C$ or better.
FAS 212 Visual Fashion Merchandising (2-3) 3 crs.
Studies the communication of design and methods of interpreting consumer needs and motivations. Explores the techniques of educating the consumer and promoting good design through visual display methods.
Prerequisite: FAS 112 with a grade of $C$ or better.
FAS 229 Promotion of Fashion (3-0) 3 crs. Introduces various techniques and methods to sell fashion. Emphasizes advertising and use of social network. Includes sales promotion in window displays, interior displays, special events, fashion shows and publicity. Analyzes practical creative assignments.
Prerequisite: FAS 212 and FAS 230 with grades of C or better. Corequisite: MKT 245.

FAS 230 Fashion Forecasting (3-0)
3 crs.
Focuses on the social, economic, political and psychological forces that influence fashion. Introduces methods of forecasting fashion trends. Contemporary consumer lifestyles will be analyzed.

FAS 240 Fashion Projects (3-0)
3 crs.
Studies the use of oral and written communication in a fashion career with special emphasis on preparing for and staging fashion shows and special events. The effects of personal appearance on communication are analyzed.

FAS 245 Topics in Fashion Design (1-0 to 3-0) 1-3 crs.
Studies selected problems or topics in fashion design. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that course is offered. Different topics may be selected and the course repeated to a maximum of three credit hours.
Prerequisite: FAS 107 with a grade of $C$ or better, or consent of instructor.

FAS 250 Professional Studio Practices I (1-4) 3 crs. Continues the stages of product development through manufacturing. Students will develop a studio plan and complete the development of a small product line. Individualized projects may include apparel, millinery, handbags, accessories or knitwear.
Prerequisite: FAS 125 with a grade of $C$ or better.
FAS 260 Professional Studio Practices II (1-4) 3 crs. Continues development and application of production processes and marketing strategies. Projects are individualized and may include garments, millinery, handbags, accessories or knitwear. Prerequisite: FAS250 with a grade of C or better.

FAS 265 Creative Enterprise (2-4)
4 crs.
Continues studio methods of production and develops goals, objectives, strategies, and tactics for realizing desired outcomes. Prerequisite: FAS 260 with a grade of C or better.

## FIN Financial Management

FIN 101 Financial Institution Operations (3-0)
Presents an overview of the evolution of the U.S. banking system; the fundamentals of money and banking; operations of banks; the role of governmental regulatory agencies such as the Federal Reserve and the FDIC; consumer and business products and services; and international banking. Provides an examination of the functioning of our economic system emphasizing contemporary and regulatory issues that impact the future of the banking industry.

FIN 200 Investment Management (3-0)
Introduces the student to the fundamentals of equity and fixed income investing. Explores other investment management subjects such as mutual funds, international investing and retirement planning as well as tax-advantaged investments. Basic derivatives such as futures and options will also be discussed. (Credit will be given for either FIN 200 or MGT 170, but not both.)

## FIN 215 Financial Statements Interpretation and Analysis

 (3-0)3 crs.
Explores the characteristics of financial statements and financial statements analysis. Emphasis is on the income statement, balance sheet, and sources and uses of funds statement. Effects of reserves, inventory valuations, depreciation, depletion, amortization, subsidiaries and affiliates are studied. Addresses cash flow, reported earnings, taxable earnings and interpretation of the financial data by means of ratio analysis.
Prerequisite: ACC 101 with a grade of C or better.
FIN 225 International Finance (3-0)
3 crs.
Emphasizes international trade financing. Presents mechanics of importing and exporting, credit and political considerations. Focuses on credit considerations, market product profiles, letters of credit, collection, credit information outside the United States and entry into these markets.

## FIS Fire Science

FIS 100 Fundamentals of Fire Protection (3-0)
Provides an overview of fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; fire protection systems; introduction to fire strategy and tactics.
FIS 102 Fire Service Management/Administration I (3-0) 3 crs. Introduces the student to the role of the company officer. Provides an introduction to basic management theories, practices and functions with an emphasis on fire service leadership from the perspective of the company officer. Provides an introduction to the organization and management of a fire department and the relationship of government agencies to the fire service.
Prerequisite: FIS 100 and FIS 121 with grades of C or better.
FIS 103 Firefighting Strategies and Tactics I (3-0) 3 crs. Introduces basic principles and methods associated with fireground strategies and tactics as required of the company officer. Emphasizes the incident management system, fire behavior, basic firefighting size-up, pre-fire planning, engine company and truck company operations.
Prerequisite: FIS 100 and FIS 121 with grades of C or better.
FIS 104 Building Construction for Fire Protection (3-0) 3 crs. Studies the components of building construction that relate to fire and life safety. Focuses on firefighter safety and the elements of construction and structure design as key factors when inspecting buildings, preplanning fire operations and operating at emergencies.
Prerequisite: FIS 100 with a grade of $C$ or better.
FIS 106 Fire Service Career Explor Practicum (0.5-2) 1 cr. Studies fire science career and employment possibilities in the fire service. Includes observation practices at various fire departments and attendance at a seminar to discuss related experiences. Students will gain an accurate perception of how their personal and professional goals match with the fire service, as well as learn about ways to reach their goals. Specifically, the course challenges students to look at their values, interests, and skills as they relate to a career in the fire service.

## FIS 109 Basic Firefighter Certification (9-6)

12 crs.
Provides a member of a regularly constituted fire department within the State of Illinois with instruction and certification as a state recognized Basic Operations Firefighter (Firefighter II). Satisfies the didactic and manipulative requirements for the Illinois Office of State Fire Marshall Basic Operations Firefighter (Firefighter II) certification course, meeting or exceeding the level identified in NFPA 1001. NOTE: Student must be a member of an ILLINOIS fire department that has entered into a training agreement with Harper College.
Prerequisite: FIS 103, FIS 104, FIS 122, and FIS 260 with grades of $C$ or better and consent of program coordinator.

## FIS 121 Fire Behavior and Combustion (3-0) <br> 3 crs.

Explores the theories and principles of how and why fires start, spread, and are brought under control. Students will be able to relate the principles by which fires spread with the appropriate methods of control.

FIS 122 Introduction to Fire Prevention Principles (3-0) 3 crs. Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with the built-in fire protection systems, fire investigation, and fire and lifesafety education.

FIS 123 Advanced Fire Prevention Principles (3-0) 3 crs. Provides the theories of fundamental fire prevention principles including the various techniques that can be utilized to prevent the occurrence of or reduce the impact from a fire. Emphasis will be placed on plan reviews, code interpretation, and built-in fire protection systems.
Prerequisite: FIS 122 with a grade of C or better.
FIS 132 Hazardous Materials I (3-0) 3 crs.
Reviews basic chemistry, storage, handling, laws, standards and fire fighting practices pertaining to hazardous materials. Emphasis on identification, labeling, handling, firefighting, and mitigation of hazardous materials emergencies. Students who wish to satisfy the Illinois Office of the State Fire Marshall Certificate Requirements must successfully complete this course as well as the required practical skills evaluation prior to taking the state examination by the Authority Having Jurisdiction (A.H.J.).

FIS 133 Hazardous Materials II (3-0) 3 crs.
Continues FIS 132. Provides those personnel who are, or will be, operating at the technician level of a hazardous materials response team with the advanced skills needed to evaluate and mitigate an incident involving direct release of hazardous materials. Students who wish to satisfy the Illinois Office of the State Fire Marshal Certificate Requirements must successfully complete this course as well as the required practical skills evaluation prior to taking the state examination by the Authority Having Jurisdiction (A.H.J.).
Prerequisite: FIS 132 with a grade of C or better.
FIS 145 Fire and Emergency Services Instructor I (3-0) 3 crs. Provides instruction to individuals in the fire and emergency services. Provides basic fundamentals in human relations in the teacher-student learning environment, methods of instruction and proper methods of writing lesson plans.
FIS 200 Fire Service Internship (1-10) 3 crs.
Applies and expands fire science skills and knowledge in the workplace environment. Conducted under joint partnership agreements between Harper College and a host fire department. Regularly conducted review sessions will be conducted to assess the student's progress, problem areas, and to review appropriateness of work involvement. Actual permissible duties and activities will be determined based upon the student's qualifications and host department restrictions. Student must complete a minimum of 100 contact hours to earn 3 hours of credit. Appropriate skills to the fire science technology field.
Prerequisite: FIS 100, FIS 103, FIS 121 and FIS 122 with grades of $C$ or better.

FIS 202 Fire Service Management/Administration II (3-0) 3 crs. Examines and discusses supervisory and various forms of communications that occur in the work setting. Examines work group dynamics and assists the fire officer to understand and function within the work group. Introduces health and safety within the work setting.
Prerequisite: FIS 102 with a grade of C or better.
FIS 203 Fire Strategies and Tactics II (3-0)
3 crs.
Examines the tactical deployment of manpower and equipment for extra alarm fires, high-rise fires and extraordinary incidents. Studies manpower and equipment necessary for large-scale fireground operations.
Prerequisite: FIS 103 with a grade of C or better.
FIS 210 Basic Fire-Arson Investigation (3-0)
3 crs.
Provides the identification of the nature and behavior of fire, combustion properties, sources of ignition, the techniques and procedures for the identification of the cause and origin of fires, the detection of arson, the role of the fire investigator, the role of the crime laboratory, arson law, and fire report writing.
Prerequisite: FIS 100 and FIS 121 with grades of C or better.

FIS 211 Advanced Fire-Arson Investigation (3-0) 3 crs. Provides students with a systematic approach for reconstructing complex fire scenes, applying the principles of fire protection engineering and burn patterns along with forensic and behavioral science. Uses historical fires, technical insight into the ignition, growth, development and outcomes of those fires with an increased awareness of the fire-arson investigation process.
Prerequisite: FIS 210 with a grade of C or better.
FIS 212 Fire Protection Systems (3-0) 3 crs.
Provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers.
Prerequisite: FIS 100 with a grade of C or better.
FIS 220 Fire and Emergency Services Instructor II (3-0) 3 crs. Provides advanced instruction to individuals in the fire and emergency services. This course introduces advanced instructional skills necessary to teach fire and emergency services personnel. It will familiarize the student with behavioral objectives, cognitive, psychomotor skills, different teaching methods and applications in training sessions. This course will also familiarize the student with training records, reports, and in the development and administration of evaluation instruments.
Prerequisite: FIS 145 with a grade of C or better.
FIS 230 Fire and Emergency Services Law (3-0) 3 crs. Enables the student to acquire a basic knowledge of the law in specified subject areas that directly or indirectly affect fire and emergency services by providing basic knowledge of the methodology through which to locate, read and comprehend various statues, regulations, and cases that are the framework of the law.

## FIS 240 Fire Apparatus Engineer (2-2)

3 crs.
Provides students with a foundation of theoretical knowledge and psychomotor skills in order to understand principles of the use of water in fire protection and to apply hydraulic principles to analyze and solve water supply problems. Also provides students with the psychomotor requirements to satisfy the Illinois Office of State Fire Marshal Fire Apparatus Engineer Course. Evaluates students' ability to perform the manipulative functions required to properly operate a National Fire Protection Association compliant fire apparatus in simulated fireground settings.
Prerequisite: MTH 080 with a grade of C or better.
FIS 250 Industrial Fire Protection (3-0)
Studies the recommended practices for protection of industrial properties and processes from fire, explosion and damage specific to certain types of public and private industry; including fire and accident prevention programs, identification of special hazards, fire protection equipment and systems, handling of emergencies, the development of policy, rules, and regulations, the inspection and investigation of accidents, and standardized record keeping.

FIS 260 Emergency Services Safety (3-0) $\mathbf{3}$ crs.
Provides a foundation of knowledge and understanding of safety as applied to emergency services. Examines the need for safety in the everyday performance of all aspects of their jobs and gain an understanding of the essential elements needed to reduce accidents and injuries.

FIS 270 Fire Service Technical Rescue (3-0) 3 crs. Provides students with a primary focus on the operations-level situations to which fire service rescue squads are called. Focuses on various complex rescue scenarios that firefighters are exposed to on a regular and on-going basis. Conforms and meets NFPA Standard 1670 on Operations and Training for Technical Search and Rescue incidents.
Prerequisite: FIS 100 with a grade of C or better.

## FRN French

FRN 101 Elementary French I (4-0)
4 crs.
Introduces the language skills of listening, understanding, speaking, reading, and writing in their logical sequence. Designed for students with no previous experience in French.

FRN 102 Elementary French II (4-0)
4 crs.
Continues FRN 101. Situational conversations in French; reading and writing stressed. One year of high school French is recommended.
Prerequisite: FRN 101 with a grade of C or better, or consent of instructor.

FRN 201 Intermediate French (4-0)
4 crs.
Continues FRN 102. Conversation with emphasis on pronunciation, intonation, stress and rhythm. Introduction to composition, reading of short stories and grammar review.
Prerequisite: FRN 102 with a grade of C or better, two years of high school French or consent of instructor.

FRN 202 Intermediate French (4-0)
4 crs.
Continues FRN 201. Further develops knowledge of the language and provides an overview of the culture of French-speaking peoples. Emphasizes the development of advanced reading, writing, speaking and listening comprehension skills. While review the grammar structures previously covered, this course uses an integrated skills approach to extend the growth of communicative proficiency in French and to develop the understanding of French culture. Throughout the semester, students will be engaged in a variety of writing and speaking interactive class activities. Through guided reading, students will also be introduced to more complex grammer structures. Course content is theme-based and encourages students to expand linguistic and cultural knowledge through reading and communicative activities. NOTE: Three years of high school French are recommended. IAI H1 900
Prerequisite: FRN 201 with a grade of C or better, or consent of instructor.

FRN 205 French Intensive Oral Practice (3-0) 3 crs. Conversational practice to develop oral facility; specially designed exercises in pronunciation, stress and rhythm. Individual readings of modern French works discussed in class. Written and oral compositions based on readings. Designed to help students bridge the gap between the intermediate and advanced levels. Prerequisite: FRN 202 with a grade of C or better or equivalent or consent of instructor.

FRN 210 Introduction to Modern French Literature (3-0) 3 crs. Reading of selected 20th century masterpieces. Introduces poetry and "analyze de texte." Oral readings stressing pronunciation and diction. Speaking based on discussion of works read. Writing based on readings and class discussion. Designed to help students bridge the gap between the intermediate and advanced levels. IAI H3 917
Prerequisite: FRN 202 or equivalent with a grade of C or better, or consent of instructor.

## FSM Hospitality Management

FSM 107 Basic Quantity Bread and Pastry Arts (2-5) 4 crs. Introduces basic quantity baking of breads and pastries. Students will learn the fundamentals of baking science, terminology, ingredients, weights and measures, formula conversion, and storage. Sanitation and hygienic work habits conforming to health regulations are emphasized.

FSM 108 Advanced Quantity Bread and Pastry Arts (2-5) 4 crs. Continues instruction in the finer arts of breads and pastry preparation, including emphasis on pastry arts work, pastries and breads as used in exclusive establishments, and ornamental skills for culinary exhibits.
Prerequisite: FSM 107 with a grade of C or better.

FSM 109 Introduction to Food Prep/Production (2-5) 4 crs. Introduces basic cooking skills that can be developed to produce quality food products. Students will learn fundamentals of cooking and baking through daily assignments and production. All aspects of the industry will be covered including proper handling and storage, heating and holding, weights and measures, safety, sanitation, and personal hygiene.

FSM 110 Advanced Quantity Culinary Arts (2-5) 4 crs. Continues FSM 109 with special emphasis in the dining experiences. Students will prepare meals for the College dining room, banquets, catered functions, and special culinary arts events. Students will discuss theory as well as procedures in the "back of the house."
Prerequisite: FSM 109 with a grade of C or better.
FSM 111 Introduction to the Hospitality Industry (3-0) 3 crs. Orients students to the hospitality industry, its organizational structure and integration of the modern industry components. Operational considerations are discussed. Career opportunities are explored.

FSM 113 Dining Room Operations (1-5)
3 crs.
Introduces theory and practice of quantity food serving including practical experience in dining rooms and catering services. Involves set-up, tableside preparation and presentation of food and beverage. Examines various roles of dining room personnel.

## FSM 114 Food Standards and Sanitation (2-0)

2 crs. Introduces safe food handling practices and discusses the standardized procedures involved in the procurement, storage, preparation, holding, and service of safe food. Prepares students for the State of Illinois-approved Food Service Sanitation Manager's Certification test.

FSM 115 Menu Planning (3-0)
3 crs.
Studies menu planning theory and principles for various types of food service operations. Examines the relationship of menu planning to the functional areas within food facilities. Menu planning and its importance as a determination of food cost, selling price, and profitability is also emphasized.

FSM 120 Front Office Operations (3-0) 3 crs. Establishes a systematic approach to front office operations detailing the flow of business through the hotel from reservations to checkout. Front office management is placed within the context of the overall operation of the hotel. Methods of handling guest folios, reservations systems, property management systems, and cash controls are discussed.

FSM 162 Classical Cuisine (2-5)
4 crs.
Introduces comprehensive integration of previous culinary production course work or work experience and provides food production for the department's special events, culinary competitions, and the College dining room. Demonstrations, food labs, and lectures are used to present the material.
Prerequisite: FSM 109 and FSM 110 with grades of C or better.
FSM 163 Garde Manger (1-3)
2 crs.
Provides students with skills and knowledge in the preparation of cold hors d'oeuvres, sandwiches, salads, garnishes, pates, terrines, mousses, vegetable carving, chaud froid sauce, tallow, and ice carving.
Prerequisite: FSM 109 with a grade of C or better.
FSM 172 Classical Baking (1-3)
Concentrates on methods and procedures for producing high quality specialty tortes and buffet items for bakeries and fine dining clubs, hotels, and restaurants. Pulled sugar, pastillage, nougat, marzipan, chocolate, ice cream, candies, and desserts are included. Emphasis is on individual skill development through practice.
Prerequisite: FSM 108 with a grade of C or better.

FSM 173 Cake Decoration (1-3)
2 crs.
Presents methods and procedures for producing high quality wedding and specialty cakes for bakeries and fine dining clubs, hotels, and restaurants. Emphasis is on individual skill development through practice.
FSM 210 Hospitality Facility Maintenance (3-0)
3 crs.
Focuses on the organization, duties, and administration of a restaurant and lodging facility maintenance department. Discusses purchasing, furniture, carpeting, linens, and supplies. Identifies and evaluates care and maintenance techniques of the areas serviced by a facility maintenance department.

FSM 211 Purchasing and Storage (3-0)
Standards and identification of quality meats, dairy products, produce, groceries, frozen foods and supplies. Methods of purchasing, purveyor relations, and proper storage techniques and purchase standards for convenience foods.

FSM 212 Hospitality Supervision (3-0) 3 crs. Studies the theory and techniques of supervision as related to the hospitality industry.

FSM 213 Seminar and Internship (1-15)
3 crs.
Furnishes participation in a supervised cooperative work experience program in a College-approved hospitality operation. Enrollment is restricted to sophomores in the Hospitality Management program.
Prerequisite: FSM 212 with a grade of C or better.
FSM 214 Hospitality Operations Analysis (3-0) 3 crs. Provides practical application of operational analysis used by food, lodging and travel-related fields. Use of ledgers, automated information systems and basic financial statements are discussed.

FSM 215 Restaurant Layout and Equipment (3-0) 3 crs. Maximizing employee productivity through various types of food equipment and proper equipment arrangement. Effects of use of convenience foods on equipment planning.

## FSM 216 Introduction to Wine, Spirits and Beverage

 Management (3-0)3 crs.
Studies alcoholic beverage classifications, alcoholic beverage laws, wine regions, purchasing and control, promotion and service. Beverage management principles and theories are presented which support and reinforce the practical aspects. Prerequisite: Minimum age of 21.

FSM 220 Hospitality Promotions (3-0) 3 crs.
Provides Hospitality Management majors with a solid background in hospitality promotions. Focuses on promoting highly perishable, people-intensive intangibles in a highly competitive environment.

FSM 230 Hospitality Law and Risk Management (3-0) 3 crs. Surveys our legal system as applied to the hospitality industry. Examines contracts, torts and various labor laws pertinent to the industry. Analyzes insurance costs, including fire, accident, worker's compensation and employee liability and their effect on various types of facilities.

## FSM 299 Topics in Hospitality Management (0.5-0 to

3-0) 0.5-3 crs
Studies selected issues or topics in hospitality management. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated two times to a maximum of three credit hours.

## FYE First Year Experience

FYE 101 First Year Experience (1-0 to 2-0)
1-2 crs.
Focuses on strategies that assist students in making a successful transition to college life. Students will identify personal strengths to increase self-efficacy as it relates to persistence in college. Students will interact with other students in a supportive environment. Using techniques designed to foster student engagement, students will learn to assume responsibility for their academic decision-making as it relates to success in college and in life.

## GEG Geography

## GEG 100 Cultural Geography (3-0)

3 crs.
Surveys the contemporary topics of human geography; population, migration, language, religion, ethnicity, and political, economic and urban geography. Teaches the methods and tools geographers use in their science and practice. IAI S4 900N

## GEG 101 World/Regional Geography (3-0) <br> 3 crs.

Surveys the major world regions emphasizing their physical, cultural, economic and historical geographies; provides a geographic interpretation of major current events. IAI S4 900N
GEG 103 The Developing World (3-0) 3 crs.
Surveys the technologically less developed regions of the World, including East Asia, South Asia, Middle and South America, Southwest Asia and North Africa, and Sub-Saharan Africa. Emphasis is placed on the spatial arrangement of resources, population, human institutions, economic activities, political patterns, religion, and cultural and physical landscapes. Each cultural realm is analyzed in respect to the larger international community with special attention to current events and issues. IAI S4 902N

GEG 104 The Developed World (3-0) 3 crs. Surveys the technologically more developed regions of the world, including Europe, the United States and Canada, the former Soviet Union, Japan, Australia and New Zealand. Emphasis is placed on the spatial arrangement of resources, population, human institutions, economic activities, political patterns, religion, and cultural and physical landscapes. Each cultural realm is analyzed in respect to the larger international community with special attention given to current events and issues. IAI S4 901

## GEG 111 Physical Geography (3-0)

Examines the spatial distribution of elements of Earth's four physical spheres: the atmosphere, the hydrosphere, the lithosphere, and the biosphere including landforms, climates, weather, vegetation, and soils. Consideration is given to the causes of these distributions and to their effects on human populations. IAI P1 909

GEG 112 Physical Geography Laboratory (0-2) 1 cr.
Applies the scientific method of observation, hypothesis formation, and experimentation to Earth's four physical spheres: the atmosphere, the hydrosphere, the lithosphere, and the biosphere. IAI P1 909L
Prerequisite: Prior or concurrent enrollment in GEG 111.
GEG 151 Geographic Information Systems I (2-2) 3 crs. Introduces the theory and problem solving capabilities of Geographic Information Systems (GIS). Examines underlying fundamental concepts of cartography, including the concepts of map projection, the Cartesian coordinate system, spatial data collection, and data generalization. Students will acquire spatial data in the field and from published sources, and will learn the basic functions of GIS software and creating GIS databases and maps.

GEG 152 Geographic Information Systems II (2-2) 3 crs. Continues GEG 151. Emphasizes the practical application of Geographic Information Systems (GIS) technology to solve problems and answer questions. Increases level of proficiency using GIS and performing spatial analysis of data. Introduces GIS operational and management issues.
Prerequisite: GEG 151 with a grade of C or better.
GEG 210 Economic Geography (3-0)
3 crs.
Studies the spatial distribution and interaction of economic activities. Emphasis is on land use patterns, population movement, the principles governing the location of agricultural, manufacturing, and commercial centers and the impact of economic activity on the environment. IAI S4 903N

## GEO Geology

GEO 101 Physical Geology (3-2)
4 crs.
Provides an introduction to the earth's minerals, rocks and natural resources and the processes which have shaped the Earth's surface such as sedimentation, mountain building, and action of water, wind, ice and downslope movements. Covers Earth's fundamental structure and the behavior of Earth materials. Focuses on the roles of volcanism, earthquakes, sea-floor spreading and paleomagnetism in explaining plate tectonic theory. IAI P1 907L

GEO 102 Dinosaurs, Fossils and Planet Earth (3-2) 4 crs. Provides a comprehensive examination and exploration on how the face of the Earth has changed over the history of the solar system. The journey will focus on the geologic story of North America by examining the diverse geological processes that have shaped the continent over time. These will include: a review of rocks and minerals; sedimentation, weathering, erosion and depositional environments: fossilization processes; origin and evolution of life; defining and measuring geologic time; and the role that plate tectonics has played in shaping the Earth through time. Examples will be drawn from the diverse National Parks System, and an examination of the role dinosaurs and other extinct animals play in our understanding of our changing planet. One-day field trip to Starved Rock State Park is required. For science and non-science majors.
GEO 103 Environmental Geology (3-2) 4 crs.
Examines the relationships between humans and the geological environment. Includes the study of use and abuse of natural resources such as water, minerals, and energy; an overview of natural hazards; an examination of urban geology and land management issues, and the relationship between community status and land use; an analysis of pollution and waste disposal; and an introduction to climate change and global warming. Emphasis is on issues and practices in the Chicagoland area. Knowledge of high school algebra is assumed. IAI P1 908L
GEO 201 Rocks and Minerals (3-2)
4 crs.
Physical description of minerals and rocks. Introduction to crystallography, economic minerals, natural resources. Field trip required.
Prerequisite: GEO 101 and CHM 121 with grades of C or better, or consent of instructor.

GEO 202 Paleontology (3-2) 4 crs.
Fossil record of life, principles of evolution and ecology. One-day field trip required.
Prerequisite: BIO 101, BIO 140 and GEO 102 with grades of C or better, or consent of instructor.

## GER German

GER 101 Elementary German I (4-0)
4 crs.
Introduces the language skills of listening, understanding, speaking, reading and writing in their logical sequence. Designed for students with no previous experience in German.

GER 102 Elementary German II (4-0)
4 crs.
Continues GER 101. Situational conversation in German; reading and writing stressed. One year of high school German is recommended.
Prerequisite: GER 101 with a grade of C or better, or consent of instructor.

## GER 201 Intermediate German (4-0)

4 crs.
Continues GER 102. Conversation with emphasis on pronunciation, intonation, stress and rhythm. Introduction to composition, reading of short stories and grammar review. Two years of high school German are recommended.
Prerequisite: GER 102 with a grade of C or better, or consent of instructor.

GER 202 Intermediate German (4-0)
4 crs.
Continues GER 201. Provides a crucial bridge between the basic grammar and language structure that is taught in the first three semesters and the more in-depth study of history, geography, literature and culture that is taught in the advanced German courses. Integrates students' basic German language skills and applies them to everyday living situations. Begins the study of German literature, focusing on the modern history and culture of the German-speaking peoples. Three years of high school German are recommended. IAI H1 900
Prerequisite: GER 201 with a grade of C or better, or consent of instructor.

GER 205 German Intensive Oral Practice (3-0) 3 crs. Conversational practice to develop oral facility; specially designed exercises in pronunciation, stress and rhythm. Individual readings of modern German works discussed in class. Written and oral compositions based on readings. Designed to help students to bridge the gap between the intermediate and advanced levels. Prerequisite: GER 202 with a grade of $C$ or better, or equivalent or consent of instructor.

GER 210 Introduction to Modern German Literature (3-0) 3 crs. Readings of selected 20th century masterpieces. Introduction to poetry. Oral readings stressing pronunciation and diction. Speaking based on discussion of works read. Writing based on readings and class discussions. Designed to help students bridge the gap between the intermediate and advanced levels. IAI H3 917
Prerequisite: GER 202 with a grade of $C$ or better, or equivalent or consent of instructor.

## GER 230 German Civilization and Culture (3-0)

3 crs. Introduces students to multiple aspects of German culture and civilization from the 20th century to today. Familiarizes students with history, political institutions, economic development, literature, art and culture of Germany. Gives students an overview of the German-speaking regions of Austria, Switzerland and Liechtenstein. This course is taught in English.

## GRA Graphic Arts

GRA 101 Introduction to Graphic Arts Technology (2-2) 3 crs. Gives students an overview of the graphic arts industry. Covers various occupations including basic information for making career and education choices. Builds the foundation for continuing education in the graphic arts program. Includes historical, current and potential developments in the printing industry. Provides a comprehensive understanding of desktop publishing software and the steps related to producing printed materials.

GRA 102 Graphic Arts Desktop Publishing (2-2) 3 crs.
Presents a clear understanding of graphic desktop software and their many functions in the printing industry. Provides handson training using the most current desktop publishing software. Focuses on project work, page layouts and output functions. Prerequisite: Prior or concurrent enrollment in GRA 101.

GRA 103 Digital Imaging I (2-2)
3 crs.
Covers fundamentals of professional digital image-editing software (Adobe Photoshop). Emphasizes skills to manipulate photos using current software tools and special effects filters. Explores program tools, color correction, channels, layers and masks. Computer skills are required for success in this course.

GRA 105 Color Management (2-2) 3 crs.
Examines the fundamentals of color theory and color management, throughout the entire graphic arts process. Students will explore all color management techniques of input and output devices as well as tools and concepts for successful color control.
Prerequisite: GRA 101 or GRA 103 with a grade of C or better.
GRA 111 Press Operations (2-2)
Covers fundamentals of offset printing as well as new technologies in the digital print arena. Provides knowledge of press maintenance and safety, feeder systems, registration requirements, ink systems and color management tools and techniques in the print industry.
Prerequisite: GRA 101 with a grade of C or better.
GRA 112 Digital Illustration I (2-2)
3 crs.
Presents vector graphics software and its applications to the graphic arts industry. Explores tools and functions within the current software. Focuses on creating illustrations, working with type, color, and all tools needed to create multi-colored illustration and separation. Emphasizes techniques to create illustration files for use in digital print production. Computer skills are required for success in this course.

GRA 113 Digital Imaging II (2-2)
3 crs.
Covers advanced functions of digital image-editing software. Emphasizes advanced software functionality, color correction and color management needs as well as commercial imaging practices in a prepress environment. Focuses on different types of image capture and file manipulation.
Prerequisite: GRA 103 with a grade of C or better.
GRA 120 Graphic Design I (2-2)
3 crs.
Focuses on beginning fundamentals of graphic design utilizing all design principles and involves an overview of design and layout rendering techniques. Focuses on typography, images and graphics, utilizing design processes and current graphic software for print. Projects are critiqued for aesthetics and production for print.
Prerequisite: GRA 102 with a grade of C or better.
GRA 130 Introduction to Photography (2-0) 2 crs Explores beginning fundamentals of photography, its history, and the development of photography in both commercial and creative usage. Presents a past and present use of photography focusing on techniques and applications in a conventional camera-based environment emphasizing the digital photographic arena.

GRA 131 Digital Photography I (2-2)
3 crs.
Explores the techniques and applications of digital image capture, manipulating images in Photoshop and outputting digital images. Focuses on the technical aspect of digital photography, lighting needs, application use and color management basics. Project based instruction utilizing basic photographic concepts, commercially and creatively. A DSLR camera is required for this course.
Prerequisite: GRA 130 with a grade of C or better.
GRA 202 Advanced Color Management (2-2)
3 crs.
Analyzes real world color management in the digital and conventional print industry. Focuses on advanced under-the-hood technology in color management systems building closed loop systems. Covers color fidelity, models and the understanding of how devices interpret and deliver. Profile building and editing for input and output devices.
Prerequisite: GRA 105 with a grade of C or better.

## GRA 211 Project Management, Scheduling and Estimating (3-0)

Provides essential information needed to estimate, schedule, and project manage a print job. Analyzes cost calculations of various functions within the graphic arts industry. Covers workflow, scheduling, and quantity estimation to produce a quality document. Explores CSR (Customer Service Representative) roles in graphic arts workflow.
Prerequisite: GRA 101 with a grade of C or better.
GRA 213 Packaging, Finishing and Distribution (3-0) 3 crs. Provides instruction on manufacturing processes and techniques for various types of print graphics with an emphasis on 3D packaging. Studes production practices, material usage, flexography process, finishing and distribution processes and environmental/sustainability trends. Covers the interaction between products and the many roles that packaging plays in the supply chain. Presents methods of postal requirements, barcoding, how products get to market, costs, manufacturing needs and delivery of said product.
Prerequisite: GRA 111 or GRA 222 with a grade of C or better, or consent of program coordinator.

## GRA 214 Digital IIlustration II (2-2)

3 crs.
Explores advanced vector illustration graphic software in the graphic arts industry. Focuses on prepress techniques and print production uses. Includes an understanding of four-color print production requirements and advanced menus/tools.
Prerequisite: GRA 112 with a grade of C or better.

## GRA 220 Graphic Design II (2-2)

3 crs.
Teaches advanced graphic design that is project- and processfocused to refine creative and technical skills. Projects will follow the design process from initial research and sketches to refined computer layouts and final production-ready art files. Assignments will utilize graphic design principles and current graphic software. Projects are critiqued for design process, aesthetics, presentation and file production accuracy. Projects may become part of a professional portfolio.
Prerequisite: GRA 120 with a grade of C or better.
GRA 221 Graphic Portfolio Design (1-2)
2 crs.
Covers preparation of portfolio book and digital portfolio presentation. Focus is on the understanding of the professional portfolio needs and its presentation in the graphic design job market. Existing projects are critiqued for aesthetics, arrangement and presentation. Graphic resume preparation.
Prerequisite: GRA 120 with a grade of C or better.
GRA 222 Package Design (2-2)
3 crs.
Provides instruction on marketing and branding strategies and the design of packaging products. Studies packaging structural implications and substrates as well as design and production for 3D packaging such as folding cartons, flexible bags, labels and shrink sleeves. Covers barcoding and postal preparation and standards; works with supplied CAD structures. Emphasizes the creative visual design of 3D packaging and prototype creation; focuses on the file production through manufacturing requirements of the packaging industry.
Prerequisite: GRA 112 and GRA 120 with grades of $C$ or better.

## GRA 229 Page Layout (2-2)

3 crs.
Explores advanced desktop publishing focusing on page assembly in QuarkXpress, transitioning to InDesign. Projects focus on creating documents that follow industry standards and best practice for page layout and print production. Emphasis is placed on projects for print and preflighting techniques.
Prerequisite: GRA 102 with a grade of C or better.

GRA 230 Prepress Production (2-2) 3 crs.
Covers prepress procedures, including preflight, the understanding of manufacturing specs and press layouts. Emphasis on postscripting, ripping in a high end workflow, press imposition of ripped files, trapping needs of files, proofing and film/plate output. Proof and plate assessment and quality control. Color management instruction for inputs and outputs as well as PDF requirements for file exchange.
Prerequisite: GRA 102 with a grade of C or better.
GRA 231 Variable Data Technologies (2-2)
3 crs.
Covers selected topics utilizing digital print technologies. Studies variable data applications, data management and cross media web-to-print solutions for the graphic arts industry. Includes aspects of personalized and customized data and marketing through text and images for print, web, email and phone delivery. Covers application training and utilization through output and trends, VDP procedures and languages, postal specifications and bindery needs.
Prerequisite: GRA 229 with a grade of C or better, or consent of program coordinator.
GRA 232 Digital Photography II (2-2)
3 crs.
Explores advanced techniques and applications of digital image capture, concentrating on application uses and output. Focuses on different types of digital photography in the graphic arts arena, from product shots, food, fashion and location techniques. Investigates different equipment and color management in a commercial studio environment. A DSLR camera is required for this course.
Prerequisite: GRA 105 and GRA 131 with grades of C or better.

## HED Health Education

## HED 200 Health (3-0)

3 crs.
Provides an in-depth look at the physical, psychological, emotional, social, spiritual and environmental factors which contribute to the overall quality of a person's life. An investigation of how our lifestyle compares with other people in the world and the role and impact of the World Health Organization is emphasized. Mental health, nutrition, fitness, communicable and non-communicable diseases, killer diseases, drugs, human sexuality, family living (marriage, divorce, parenting), middle and old age issues and death and dying are some of the topics covered. Physical and psychological assessments are included in this class. (formerly PED 203)

HED 201 Drugs in Our Culture (3-0)
3 crs.
Presents materials that examine the physiological, psychological and sociological aspects of drug use and abuse. Provides a potpourri of the facts, attitudes and opinions necessary to understand what drugs do, how they do it, who uses them and why. Discusses treatment modalities as well as legal and ethical issues in drug abuse. (formerly PED 205)

HED 202 Human Sexuality (3-0)
3 crs.
Introduces students to the familial, sociological, biological and emotional implications of human sexuality. Emphasis is on exploring attitudes regarding sexual issues, clarifications of personal beliefs and development of healthy sexual behavior. (formerly PED 207)
HED 203 Community Health (2-0)
2 crs.
Presents basic principles of community living and examines scientific methods applied to environmental health in urban and rural communities. Focuses on the functions of community health organizations and the way they relate to individual health needs. (formerly PED 270)

HED 204 Women's Health (3-0)
Focuses on health issues as they pertain to women and the barriers unique to women in gaining a higher status. Includes physical, mental and spiritual aspects of health; women's anatomy and physiology; pregnancy, childbirth and infertility; violence against women; body image and eating disorders; and societal, historical and political influences of the global woman. Discusses the detection, treatment and prevention of illnesses in women. (formerly PED 271)

HED 250 Topics in Health Education (1-0 to 3-0) 1-3 crs. Provides students with an opportunity to examine different topics that fall under the health education field. Content will change from semester to semester. A course outline will be available for the topic prior to registration. This course may be taken twice up to a maximum of 6 credit hours.

## HIT Health Information Technology

## HIT 196 Current Procedural Terminology (CPT) Coding

 (2-2)Introduces the student to the Current Procedural Terminology (CPT) coding system used in ambulatory care and services rendered by physicians. Emphasizes the six sections of the CPT Coding Manual. Uses the CPT Coding Manual to assign individual code numbers for the procedures and services performed by physicians.
Prerequisite: BIO 135, BIO 136 and HSC 112 with grades of C or better, and prior or concurrent enrollment in HIT 197 with a grade of $C$ or better.

## HIT 197 International Classification of Diseases (ICD) Coding

 (2-2)3 crs.
Introduces the student to the current International Classification of Diseases (ICD). ICD coding is designed for the classification of patient morbidity (sickness) and mortality (death) information for statistical purposes and for the indexing of hospital records by disease and operation for data storage and retrieval. Includes elements of coding techniques and guidelines, structured learning exercises and computer applications.
Prerequisite: BIO 135, BIO 136 and HSC 112 with grades of C or better.

## HIT 200 Introduction to Health Information Systems

 (3-0)3 crs.
Familiarizes students with health care information systems used to support health care clinical and administrative functions. Emphasizes the understanding of sources of health care information, assessment of data quality, and current and emerging clinical information systems. Includes system implementation and support as well as security requirements for health information systems
Prerequisite: BIO 135 and HSC 112 with grades of C or better, and prior or concurrent enrollment in BIO 136 with a grade of C or better.

HIT 215 Health Care Reimbursement (3-0)
3 crs.
Introduces students to the complex processes involved in reimbursement of health care services. Provides a basic understanding of the history and function of health insurance and public funding programs, managed care contracts, and how services are paid throughout the health care industry. Emphasizes the importance of revenue cycle management on the financial viability of health care organizations.
Prerequisite: HIT 200 with a grade of C or better.
HIT 220 Health Care Information Management (3-0) 3 crs. Familiarizes students with health care information systems including an introduction to the organizational structure, function and issues related to the health care environment. Emphasizes the structure and use of health information, health record data collection tools, data sources, storage and retrieval.
Prerequisite: HIT 200 with a grade of C or better.

HIT 225 Electronic Health Records (3-1)
3 crs.
Provides the student with a thorough knowledge of the terminology involved with Electronic Health Record systems, and their practical use in medical settings. Introduces the student to different types of software used in electronic medical records and how information flows through the health record. Describes code sets, privacy and security, and how EHRs improve patient care Prerequisite: HSC 112 with a grade of C or better, and prior or concurrent enrollment in HIT 220 with a grade of C or better.

HIT 230 Health Care Information Analysis (3-0)
3 crs.
Introduces students to the analysis of data and information generated by health services and public health organizations that document health events and epidemiological phenomena. Analytical applications will be introduced to improve health services delivery, enhance productivity, support planning efforts, evaluate health outcomes, and to monitor public health surveillance programs. Emphasizes data selection, interpretation, and presentation so students will be able to compile data associated with neoplasms, vital events, morbidity, clinical diagnoses, medical procedures, and other health measures maintained in selected indices, databases and registries.
Prerequisite: MTH 101, MTH 103 or higher with a grade of C or better, and prior or concurrent enrollment in HIT 200 with a grade of C or better.

## HIT 240 Health Information Technology Externship

 (1-10)3 crs.
Provides supervised experience in an inpatient or outpatient health care office/facility to enhance the student's familiarity with health information technology applications. Includes weekly onehour meetings throughout the semester to discuss and process the externship experience. NOTE: All required HIT coursework for the AAS degree must be completed or enrolled in prior to registering for an externship.
Prerequisite: HIT 220 with a grade of C or better.
HIT 250 Law for Health Information (3-0)
3 crs.
Introduces the student to the legal and ethical issues involved in protecting the privacy, confidentiality and security of health information. Introduces the terminology used in the US legal system, and laws that pertain specifically to health information. Emphasizes the importance of protecting health information in all forms, electronic and paper.
Prerequisite: HIT 200 with a grade of C or better.

## HMS Human Services

HMS 101 Introduction to Human Services (3-0) 3 crs.
Covers history and philosophy of human services; function and orientation of human services agencies and institutions; career opportunities and qualifications at various entry levels of human services employment. Includes opportunities for volunteer and/ or shadowing experiences to help students better understand the human services arena.

HMS 102 Helping Skills in Human Services (3-0) 3 crs. Studies practical aspects of helping strategies and interpersonal skills. Focuses on the use of techniques to improve communication, better evaluate relationships and resolve conflicts. Designed for persons in helping roles, professional and paraprofessional, or volunteers in human services.
Prerequisite: HMS 101 with a grade of C or better, or concurrent enrollment.

HMS 112 Group Work in Human Services (3-0) 3 crs. Investigates group work theories, different types of groups, group dynamics, stages of group process, group facilitation, participant role/influences, and group counseling techniques. Cooperative learning and role playing are incorporated into the learning experience.
Prerequisite: HMS 101 with a grade of C or better.

HMS 121 Multiculturalism in Human Services (3-0) 3 crs. Explores a variety of issues related to multicultural competency in human services practice. Concepts of race, ethnicity, culture, class, religion, gender, sexual orientation, ethnocentrism, oppression, and power will be explored. Practical application of acquired awareness, knowledge and skills will be stressed.
Prerequisite: HMS 102 with a grade of C or better.
HMS 211 Crisis Intervention (3-0)
3 crs.
Introduces techniques for beginning crisis counseling, including recognition of crisis, assessment of crises, and referral to the appropriate crisis agency. Special attention will be given to the process of intervention and to the recording of information regarding problems with alcohol and other drugs. Participants will implement a variety of crisis skills through an experiential format. Prerequisite: HMS 102 with a grade of C or better.

HMS 221 Introduction to Gerontology (3-0)
3 crs.
Introduces the field of social gerontology, utilizing a multidisciplinary approach to examine the basic biological, psychological and social theories of aging. Emphasizes the special needs and problems impacting the aged population. Examines historical, social, and cross-cultural issues in aging. Prerequisite: HMS 102 and prior or concurrent enrollment in PSY 228 with grades of C or better.

HMS 232 Law and Ethics in Human Services (3-0) 3 crs. Studies interpretation and practice of legal/ethical responsibilities and liabilities encountered in providing and utilizing human services with special focus on privileged relationships, counseling, and confidentiality.
Prerequisite: HMS 102 and HMS 121 with grades of $C$ or better.
HMS 241 Disabilities and Human Service (3-0)
3 crs.
Introduces students to developmental, physical, and mental disabilities by exploring behavioral management programs, record maintenance, and facility and/or home maintenance techniques. Covers treatment history and present methods. Introduces students to working with an interdisciplinary team to provide care to a varied population.
Prerequisite: HMS 102 with a grade of C or better.
HMS 251 Family Issues and Interventions (3-0) 3 crs. Studies family dynamics with an emphasis on family preservation. Introduces various family theories, approaches and intervention strategies. Explores concepts related to intergenerational patterns of behavior and family traits. Introduces signs and symptoms of behaviors associated with abuse, domestic violence and neglect. Introduces basic family legal issues, ethics and reporting policies and procedure. Introduces the system and services of the local Department of Children and Family Services. Develops human service skills to service families. Explores range of services and resources available to families. Students will develop assessment skills with emphasis on relationships, parenting, abuse and/or neglect.
Prerequisite: HMS 102 and prior or concurrent enrollment in PSY 228 with grades of C or better.
HMS 290 Field Experience and Seminar (1-10) 4 crs. Offers observation and participation in the operations of human services agencies. Students will document 125 hours of supervised field study per semester and will attend a one-hour lecture per week.
Prerequisite: HMS 211 with a grade of C or better.

## HSC Health Science Core

## HSC 104 Health Care Technology and Informatics (0-0 to 1-2) <br> 0-2 crs.

Introduces student to informatics and the use of technology in health care delivery systems. This includes a review of hardware and software, and an in-depth look at hospital/health care-based user interfaces, data bases, telecommunications and networks, and healthcare-based information systems. Also includes research methods and patient education via computers.

HSC 105 Introduction to Health Care Today (0-0 to 2-0) 0-2 crs. Familiarizes student to the health care delivery system including an introduction to the organization, structure, function and issues related to the health care environment. Emphasis placed on the importance of effective communication skills for health care professionals, team building, professionalism and diversity in the health care center

## HSC 106 Health Occupations Career Observation (0-0 to 0.5-2) 0-1.5 crs.

 Provides students an opportunity to observe selected occupations within a health care setting. The student will attend 13 two-hour sessions under the supervision of the instructor and departmental specific mentors.Prerequisite: Prior or concurrent enrollment in HSC 105 with a grade of C or better.

HSC 107 Basic Health Care Skills (0-0 to 0.5-1) 0-1 cr. Provides the knowledge and techniques required to perform basic clinical skills including asepsis, health history, vital signs, positioning and transfer, and oxygen therapy. Emphasizes clinical skills needed by health care workers to effectively work in a variety of health care settings. Upon completion of the course, the student will demonstrate safe and effective basic clinical skills.

HSC 112 Medical Terminology (0-0 to 1-2)
$0-2 \mathrm{crs}$.
Emphasizes the origin and the basic structure of medical words, including prefixes, suffixes, word roots, combining forms and plurals. Offers pronunciation, spelling, and definition of medical terms based on the body systems approach. Emphasis on rendering a professional vocabulary required for work in the health care field.

HSC 165 Basic Pharmacology (0-0 to 1-0) 0-1 cr. Examines the mechanism of action of the major medication groups as they relate to the physiology and pathology of disease. Identifies examples in each major pharmacological category in order to understand pharmacological activity within each group. Addresses areas of drug action, clinical application, and adverse events for each medication discussed. Intended for students in allied health majors.
Prerequisite: Prior or concurrent enrollment in BIO 135, BIO 160 or HSC 112 with a grade of C or better.
HSC 201 Advanced Pharmacology (0-0 to 2-0) 0-2 crs. Builds on pharmacology content begun in previous coursework (either NUR 111 or HSC 165). Discusses pharmacokinetics and pharmacodynamics of the major classifications of medications at an advanced level in order to understand the pharmacological activity within each classification. Incorporates the principles of safe drug administration. NOTE: This course is designed for nursing students.
Prerequisite: BIO 135 and HSC 165, or BIO 160 and NUR 111, or HSC 112 and HSC 165 with grades of $C$ or better.

## HSC 213 Legal and Ethical Issues in Health Care (0-0 to 2-0) <br> $0-2$ crs

Introduces the legal and ethical issues that pertain to various health care delivery settings. Discusses how these issues impact the health care practitioner in a diverse culture. Practices and standards are discussed as they relate to professional behavior and ethical decision-making.

## HST History

HST 105 Great Ideas of World Civilizations (3-0)
3 crs.
Introduces students to a selection of formative historical and contemporary texts in a variety of disciplines, including philosophy, the social sciences, literature, gender/multicultural studies, and the history of science. (Also listed as HUM 105. Credit will be given for either HST 105 or HUM 105, but not both.) IAI H9 900

HST 111 The American Experience to 1877 (3-0) 3 crs. Survey of the American experience through the pre-revolutionary period, the expansion westward and the Civil War. Special stress is placed upon the social, economic, cultural, political and constitutional development of the United States. IAI S2 900

HST 112 The American Experience Since 1877 (3-0) 3 crs. Surveys the end of Reconstruction to the present, with primary stress on political and economic development. Also includes social, intellectual, and cultural phases, expanded role of government in national affairs and the participation of the United States in international relations. IAI S2 901

HST 121 History of Latin America (3-0)
3 crs. Surveys the political and constitutional history of the principal Latin American nations. The course will cover movements leading to independence and social and economic events which are pertinent to relationships with the United States. IAI S2 910N

HST 141 History of Western Civilization to 1650 (4-0) 4 crs. Stresses political, social, cultural, economic, and technological developments from prehistoric times and concludes with the last manifestation of essentially medieval ideology,i.e., the Protestant Reformation. IAI S2 902

HST 142 History of Western Civilization Since 1650 (4-0) 4 crs. Continues HST 141. Commences with the emergence of modern times, i.e., the development of royal absolutism and the beginnings of the modern nation state and concludes with the 20th century and the modern world. IAI S2 903

## HST 151 History of England Norman Conquest to 1600

 (3-0)3 crs.
Surveys the social, cultural, economic, political, and religious history of England from the Norman Conquest through the age of Elizabeth I.

HST 152 History of England 1600 to Present (3-0) 3 crs.
Surveys the social, cultural, imperial, economic, and political history of England from the Stuart Dynasty through the present era.

HST 153 British Culture and Society (3-0) 3 crs.
Surveys the culture and society of England from the Norman conquest to the present.

HST 202 Topics in History (1-0 to 3-0)
1-3 crs.
Examines selected eras or topics in the various fields of history. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A syllabus and/or course outline containing additional information will be available with other pre-registration materials each time the course is offered. Experience or interest in history is recommended, but not required. This course may be taken from one to three credit hours, to a maximum of nine credit hours.

HST 210 Women--the American Experience (3-0) 3 crs. Studies history of the status, roles, and contributions of women in America, and a survey of the attitudes and movements that have affected the lives of women in America.

HST 212 Recent American History,1945-present (3-0) 3 crs. Provides students with a comprehensive analysis of the critical period 1945 to the present in American history. Incorporates politics and culture of the Cold War, the revival of liberalism, the Civil Rights movement, the rise of the New Left in the 60s, the Vietnam War, the counterculture, Watergate, the personalization of political activism in the 70s, the women's movement, the resurgence of conservatism, the Reagan presidency, the Bush era, the Clinton years, return of the Republicans, 9/11, war in the Middle East, the economic downturn, Obama 2008, and the 2012 election. Emphasizes social history and cultural trends as well as political and economic history.

## HST 214 African-American History (3-0) 3 crs.

Studies African-Americans from African slave trade through slavery, reconstruction, years of neglect and civil rights revolution in the United States and their contributions to American culture.

HST 219 Illinois and Local History (3-0)
3 crs.
Focuses upon Illinois from its prehistory to the present with special attention to the local setting. Explores the impact of the state's geography upon its history and investigates the contributions of different groups--African, American, European, Native American, male and female--in the economic, social, political, and literary development of Illinois. Considers the ways in which the history of this state illustrates, amplifies and explains the larger history of the United States.

HST 231 History of the Middle East to 1453 (3-0) 3 crs. Surveys the Ancient Near East and Middle East from its origins in Ancient Summer up to 1453 . Emphasis will be placed on social, political, economic, religious and military institutions. The process of change and broad continuities will be examined in relationship to the historical evolution and growth of the region. IAI S2 918N

## HST 232 History of the Middle East 1453 to the Present

 (3-0)3 crs.
Surveys the history of the Middle East from 1453 to the present. Emphasis is placed on social, political, economic, religious, and military institutions that shape the region. The establishment of colonial rule is highlighted along with the struggle for independence, modernization and development. IAI S2 919N

## HST 241 History of China: Earliest Time Through Ming Dynasty (3-0) <br> 3 crs.

Surveys the history of China from prehistory to the end of the Ming Dynasty. Major emphasis is placed on the evolution and growth of the Imperial system and forces that shaped its continuation and growth. IAI S2 914N

## HST 242 History of China: From the Ching Dynasty to the

 Present (3-0)3 crs.
Surveys the history of China from 1644, the Ching Dynasty, to the present. The content will stress the evolution of China from a period of strength and unity to one of disunity and change during the revolutionary times of 1911-1949. Special emphasis will be placed on the establishment of the Communist government in 1949 to the present. Economic modernization, role of foreigners and cultural advancements will also be highlighted. IAI S2 915N

HST 243 The Far East in the Modern World (3-0) 3 crs. Studies history of East Asia since 1800. The traditional cultures of China and Japan, the Western impact and the Asian response will be covered. IAI S2 909N

HST 245 The World Since 1945 (3-0) 3 crs.
Surveys the history of the world from 1945 to the present with major emphasis on historical issues and events that have global impact. IAI S2 913N

HST 261 American Civil War 1848-1865 (3-0)
3 crs.
Focuses on the causes, events and immediate outcomes of the American Civil War during the period of 1848-1865. Political, military and social history is presented so that students receive a comprehensive understanding of this seminal event in American history.

## HST 270 History of Rome (3-0)

3 crs.
Surveys Roman history from the time of the Roman monarchy through the reign of Constantine. Emphasizes the origins and history of the great Roman Legions. Includes references to works of Latin literature including, Tacitus, Suetonius, Sallust, Catullus, Ovid, Virgil and Horace. Covers Roman pre-history, the Roman Republic, the end of the Republic and the early and late Roman empire. Discusses prominent Roman citizens such as Marcus, Sulla, Pompey, Gracchi, Caesar and Augustus.

## HST 281 World War I (3-0)

3 crs.
Examines the causes, impact, outcomes and legacy of the Great War, the first modern war since the Industrial Revolution. Emphasizes current and past interpretations of this conflict. Highlights the experiences of the people, societies and countries/ nation-states that participated in this first "total" war. Considers how this conflict changed the 20th century.
HST 282 World War II (3-0)
3 crs.
Surveys the history of World War II, the most destructive conflict of the 20th century. Covers major military operations (strategy and tactics) with an emphasis on diplomacy, doctrine and conflicts over resources. Examines the origins of the war in Europe and the Pacific and details the time period, 1919-1939, Pearl Harbor, the homefront, American participation in Europe and the Pacific, new technologies, the Holocaust, the Atomic bomb, the end of the war, and the outcomes and impact of the war on the U.S. and the world beyond 1945.

## HUM Humanities

## HUM 101 Ancient Through the Medieval West (0-0 to

 3-0) 0-3 crs. Explores architecture, art, history, literature, music, philosophy and the theatre of the Western tradition from Prehistory through the Medieval era. May include a special focus; consult the course schedule for specific topics. NOTE: HUM 101 and HUM 102 need not be taken in sequence. IAI HF 902HUM 102 Renaissance Through the Modern West (3-0) 3 crs. Explores architecture, art, history, literature, music, philosophy, and the theatre of the Western world from the Renaissance to the present. May include a special focus; consult the course schedule. IAI HF 903

## HUM 104 Introduction to Middle Eastern Civilizations

 (3-0)Examines the cultural structures and the literary, visual, and performing arts of the various societies of the Middle East. Examines and compares the great contributions these cultures have made in the various arts as living artifacts to both the present day Middle East and to other cultures including those of the West. IAI HF 904N

HUM 105 Great Ideas of World Civilizations (0-0 to 3-0) 0-3 crs. Introduces students to a selection of formative historical and contemporary texts in a variety of disciplines, including philosophy, the social sciences, literature, gender/multicultural studies and the history of science.(Also listed as HST 105. Credit will be given for either HUM 105 or HST 105, but not both.) IAI H9 900

HUM 106 The Cultures of Asia (3-0)
3 crs.
Examines the arts of Asian cultures from ancient times to the present. Studies examples of the visual arts, music, dance, literature, world views, and religious traditions from selected civilizations in Asia, south of Russia, excluding the countries of the Middle East.

HUM 107 The Cultures of Africa (3-0)
3 crs.
Examines the arts of African cultures from ancient times to the present. Studies examples of the visual arts, music, dance, literature, world views, and religious traditions from selected civilizations in North Africa, the Sahel, South Africa, Central and East Africa, and West Africa, excluding countries associated with the Middle East. IAI H9 900

HUM 110 Women and Creativity (3-0)
3 crs.
Explores the nature of female creativeness, focusing on women in the traditionally male arenas of art and literature and on areas in which the female creative impulse manifests itself under other names such as the shaping of social attitudes, domestic arts and religious experiences. IAI HF 907D

HUM 115 International \& Regional Studies in Humanities (1-0 to 4-0) $1-4$ crs. Students travel with faculty to international or regional locations which may vary from year to year to study the humanities. May emphasize the literature, language, philosophy, or humane arts of the locale visited. Presentation by onsite individualized study, lectures, field trips. Classes held on campus prior to and following the off-campus learning experience. Travel expenses are paid for by the student. One Credit: Students must attend all classes and field trips, submit a daily log covering one week of travel and write a personal essay of at least five typewritten pages. Two Credits: Students must attend all classes and field trips, submit a log covering one-two weeks of travel and write a research paper of at least eight typewritten pages, plus bibliography and footnotes. Three Credits: Students must attend all clases and field trips, submit a log covering three weeks of travel and write a research paper of at least 10 typewritten pages, plus bibliography and footnotes. Four Credits: Students must attend all classes and field trips, submit a log covering four weeks of travel and write a ressearch paper of at least 12 typewritten pages, plus bibliography and footnotes.

HUM 120 Classical Mythology (3-0) 3 crs.
Studies the myths of Greece and Rome. Focuses on the stories of gods and heroes in classical literature and art. Considers the influence of classical mythology on later Western culture. IAI H9 901

HUM 125 World Mythology (0-0 to 3-0)
$0-3 \mathrm{crs}$.
Studies world mythic themes and patterns, excluding those of Greece and Rome. Focuses on archetypal figures/situations, symbolism, and figurative language found in creation stories, heroic legends and/or other traditional narratives. May include a special focus; consult the schedule. IAI H9 901

## IDS Independent Study

IDS 290 Independent Study (0-0 to 1-4) 1-4 crs.
Designed to permit the student to pursue a course of study not typically available under traditional course structure. The student will contract with the appropriate faculty member for the objectives to be accomplished in the course. May be repeated up to a maximum of four credit hours.
Prerequisite: Sophomore standing, C average or consent of instructor.

## IND Interior Design

IND 100 Theory and Fundamentals of Design (1-2) 2 crs. Introduces students to theoretical principles and nomenclature of design. Studies theories pertaining to elements and principles of design, color theory, psychology and color phenomenology as it relates to interior design. Studies human environment, proxemics and spatial behaviors. Examines universal design, designing for specific cultures and genders as well as other topical subjects. Covers the interior design profession, professional organizations and career employment.
Recommended Corequisite: IND 101.
IND 101 Interior Design Studio I (2-2) 3 crs.
Studies interior design room arrangement and furniture selection. Investigates the elements and principles of design as they relate to interiors. Studies aesthetic aspects of interior design. Develops interior projects using space planning, furniture selection, the development of furniture elevations, and presentation techniques. (NOTE: Students will need to purchase drafting board and kit in addition to textbooks. Expense estimate may exceed \$300.) Prerequisite: Prior or concurrent enrollment in IND 100.

## IND 102 Interior Design Studio II (2-2) <br> 3 crs.

Continues the study of interior space planning and furniture selection as it relates to a functional and aesthetic interior.
Investigates the use of fabric, finishes, color, and texture to complement the interior. Explores aesthetic application of color in interior design.
Prerequisite: IND 101 and IND 106 with grades of C or better. Recommended Corequisite: IND 103.

## IND 103 History of Furniture and Interior Architecture

 (3-0)3 crs.
Surveys furniture, design motifs and structures from antiquity to the present. Studies authentic designs and their relationship to contemporary applications. Examines the basis for determining the taste level and quality of reproductions and adaptations to the market today.
IND 106 Materials and Sources (3-0) 3 cr Studies the construction and finishing of materials other than those of a structural nature, including limitations, quality control, application, uses, installation methods, and quantity calculations. Examines sources available to the designer.
IND 107 Interior Perspective and Rendering (2-2) 3 crs. Studies drawing and sketching methods of furniture and interior spaces. Develops drawing techniques for interior perspective views of buildings. Explores the use of axonometric drawing and the use of various medias to present the three-dimensional delineation of interior design. Examines balance and proportions of interior items within a three-dimensional space. Uses drawing techniques and color to define light and shadow, textures, material characteristics.
Prerequisite: ART 121, IND 100 and IND 101 with grades of $C$ or better.

## IND 110 Problem Solving and Design Communication

(1-2)
Introduces the process of visual communication for interior designers. Identifies interior and architectural challenges and examines the design process of problem-solving through space analysis and planning. Utilizes collaborative methods to develop appropriate design strategies and solutions. Applies research and the use of elements and principles of design to skillfully manipulate interior spaces. Utilizes conceptual sketching and oral presentation to communicate design solutions.
Recommended Corequisite: IND 100 and IND 101.

IND 114 Codes for Interior Designers (1-2)
2 crs.
Examines how interior building codes, governmental standards and federal regulations affect and are applied to interior design. References BOCA, CABO and various accessibility requirements including the Americans with Disabilities Act.
Prerequisite: IND 101 with a grade of C or better.
IND 116 Interior Detail and Construction Drawing (2-2) 3 crs. Studies the methods and materials of interior construction and the graphic methods of communicating this information. Practices fundamental drafting conventions and develops drawing skills necessary for the production of working drawings such as floor plans, elevations, sections, finish schedules, reflected ceiling plans, and details. Discusses methods of electrical, plumbing, and HVAC distribution.
Prerequisite: IND 100 and IND 101 with grades of $C$ or better.
IND 203 3-D Design Studio (2-2)
3 crs.
Studies advanced problems in three-dimensional interior design which concentrate on the development of relationships of interior furnishings, walls, floors and ceilings into a unified design.
Applies principles and elements of design theory within a threedimensional volume of space.
Prerequisite: IND 102, IND 107, IND 114 and IND 116 with grades of C or better.

IND 205 Historic Styles Studio (2-2)
3 crs.
Reviews furniture history. Recreates historic interior designs.
Explores creation of interior design through the mixing and stylizing of furniture and finishes.
Prerequisite: IND 102, IND 103 and IND 106 with grades of $C$ or better.

IND 206 Architectural Lighting (3-1)
3 crs.
Examines artificial and natural lighting in interior design.
Considers environmental comfort, effects on colors and
information required for selection of lamps and fixtures. Acquaints students with the basic calculation methods as they relate to the lighting design process.
Prerequisite: IND 101 with a grade of C or better.
IND 207 Interior Design Internship (1-10) 3 crs.
Provides an opportunity for selected students who meet the prerequisite requirements to work with professionals in approved residential and contract design firms, retail stores, wholesale stores and showrooms specializing in interior design and related products. Students are exposed to various aspects of the interior design field and must present a report about their experience. Recommended preparation: ENG 101 or ESL coursework, or testing equivalency.
Prerequisite: IND 203, IND 205, IND 206 and IND 230 with grades of $C$ or better.
IND 209 Contract Design Studio (2-2)
3 crs.
Applies interior design skills and disabled access to contract interior projects, including floor plans, elevations or perspectives, cabinet drawings, lighting plans, selection of contract furnishings and finishes. Projects may include office spaces, restaurants, and other public buildings.
Prerequisite: ARC 116, IND 116, IND 203, IND 205, IND 206, and IND 230 with grades of $C$ or better.

IND 211 Professional Practices for Interior Design (3-0) 3 crs. Examines the business principles required for a successful interior design practice, including establishing an interior design practice, design project business issues, billing, writing client contracts, interviewing and job opportunities.
Prerequisite: IND 101 with a grade of $C$ or better.

IND 215 Topics in Interior Design (0.5-0 to 3-0) 0.5-3 crs. Studies selected problems or topics in interior design. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated two times to a maximum of three credit hours.

## IND 217 Advanced Sketching and Perspective Drawing

 (1-2)2 crs.
Reviews the development of two-point, mechanical perspective drawing. Studies freehand drawing and sketching methods of interior and exterior spaces. Develops drawing techniques for interior perspective views of buildings. Explores the use of various media to define light, shadows, textures and material characteristics.
Prerequisite: ART 121 and IND 107 with grades of $C$ or better
IND 220 CAD Studio (2-2) 3 crs.
Covers advanced CAD techniques for two-dimensional space planning and interior elevations. Introduces 3-dimensional CAD and 3-D sketching to develop perspectives and walk-throughs of interior spaces. Emphasizes development of computer graphics to augment and represent interior spaces.
Prerequisite: ARC 116 with a grade of C or better.
IND 221 3D CAD Studio for Interior Designers (2-2) 3 crs. Explores the use of tools and techniques of 3D CAD through the development of conceptual and schematic designs for an interior design project. Promotes the importance of 3D and BIM (Building Information Management) through the use of such applications such as Revit, SketchUp, AutoCAD Architectural and other programs to draw 3D models. Investigates how these programs interact and how to utilize them to create effective design solutions. Includes creating cameras; applying materials to objects; setting up a rendering and animation; using REVIT advanced 3D object types such as mass elements, wall, doors, and windows; extracting important information from BIM; drawing for conceptual design and visual presentation.
Prerequisite: IND 220 with a grade of C or better.
IND 222 3D Design Studio Presentation (2-2)
3 crs.
Develops the skills and techniques for creating photo-realistic renderings suitable for client presentations. This is an advanced level computer-aided design (CAD) course covering all the basics of the AutoDesk 3D Studio Max/Viz program which produces realistic renderings of still images and animations of interior space.
Prerequisite: IND 221 with a grade of C or better.

## IND 230 Kitchen Design Studio (2-2)

3 crs.
Examines the technical aspects and accessibility issues of designing kitchens. Practices fundamental drafting conventions including lettering, line work, dimensioning and symbol usage. Develops drawing for the kitchen including floor plans, electrical and lighting plans, elevations, and cabinet sections using NKBA guidelines and graphic presentation standards.
Prerequisite: IND 102, IND 114 and IND 116 with grades of $C$ or better.

IND 232 Kitchen and Bath CAD Studio (2-2) 3 crs.
Covers an introduction to kitchen and bath industry software techniques for two-dimensional space planning and interior elevations. Introduces 3-dimensional CAD to develop perspectives and walk-through of interior spaces. Emphasis is on the development of computer graphics to augment and represent kitchens, baths and other interior space.

IND 233 Bathroom Design Studio (1-2)
2 crs.
Examines the technical aspects and accessibility issues of designing bathrooms. Practices fundamental drafting conventions including lettering, line work, dimensioning and symbol usage. Develops drawing for the bathroom including floor plans, electrical and lighting plans, elevations and cabinet sections using NKBA guidelines and graphic presentation standards.
Prerequisite: IND 102, IND 114 and IND 116 with grades of $C$ or better.

IND 250 Portfolio Review (1-1)
Prepares students to enter the job market when completing this capstone course. Develops a professional presentation portfolio utilizing printed and multimedia applications. Explores, examines and executes various presentation options. Discusses writing and designing a resume, cover letter and interviewing techniques. Emphasizes organizing a strong body of work focused on a specific area of expertise dictated by the students' individual career goals.
Prerequisite: ARC 116, IND 203, IND 205 and IND 230 with grades of C or better OR ARC 116 AND ARC 110 or ARC 213 with grades of $C$ or better, or consent of program coordinator.

IND 281 Environmental Design Studio (2-2) 3 crs.
Explores building systems and their impact on the environment. Indoor air quality, thermal control, lighting, acoustic and water systems will be studied including solar power, wind power and other sustainable design energy alternatives. Applies these systems to various sustainable design projects and practices. Investigates LEED certification and other leislative issues. Studies the physical and psychological implications of environmental stress, crowding and institutional living and applies them to projects.
Prerequisite: IND 101 with a grade of C or better.
IND 283 Introduction to Green Design (3-0)
3 crs.
Introduces the main concepts of green design through this introductory course focused on making residential homes environmentally "safe." Explores areas of green design including vocabulary; toxic materials and indoor air quality; recycling; green products and greenwashing; lighting and daylighting; water conservation; energy and land conservation; and building rating systems. Researches resources tools utilized in sustainable design.
Prerequisite: IND 101 with a grade of $C$ or better.
$\begin{array}{ll} & 385 \text { crs. }\end{array}$ Examines lighting design for both interior and exterior applications based on lighting source sustainability. Includes residential, commercial, retail and exterior lighting. Reviews current sustainable initiatives including energy codes, ASHRAE 90.1, LEED, IGCC, and Energy Star. Also reviews daylighting and controls. Integrates these systems together in the lighting design process for an end result of effective high quality and low energyuse designs.
Prerequisite: IND 101 with a grade of C or better.

## ITP Sign Language Interpreting

ITP 101 Introduction to Interpreting (3-0) 3 crs.
Provides an overview of the field of interpreting and highlights key historical developments within the profession. Introduces terminology, service models, and cognitive processes necessary for interpreting. Examines the communication process and select variables across cultures. Compares and contrasts values and ethics, and introduces the Registry of Interpreters for the Deaf Code of Professional Conduct. Addresses role and responsibilities of an interpreter, and presents demand-control theory with an emphasis on environmental demands.
Prerequisite: SGN 202 with a grade of C or better, or consent of program coordinator.

## ITP 105 Vocabulary Development for Interpreters: English

 (1-0)Focuses on increasing vocabulary and developing English language skills. Emphasizes one or more of the following: subjectspecific terminology; idioms, metaphors and figures of speech; vocabulary pertaining to current local, national and world events. Students will also analyze meaning of lexical items in order to produce equivalents based on meaning versus form. This course is designed for interpreting students. May be repeated for a total of two credit hours.
Prerequisite: ITP 101 and SGN 205 with grades of B or better, or consent of program coordinator.

## ITP 106 Vocabulary Development for Interpreters: American Sign Language (1-0) <br> 1 cr .

Focuses on increasing vocabulary and improving language skills in American Sign Language. Emphasizes one or more of the following: subject-specific terminology; idioms, metaphors and figures of speech; vocabulary pertaining to current local, national and world events. This course is designed for interpreting students. May be repeated up to a maximum of two credit hours. Prerequisite: ITP 101 and SGN 205 with grades of B or better, or consent of program coordinator.

ITP 110 Consecutive Interpreting: English to ASL (3-0) 3 crs. Begins with analyzing English texts, translating them from English into American Sign Language, and culminates with interpreting consecutively. Introduces note-taking skills and completion of linguistic patterns. Emphasizes component skills necessary for interpreting including: listening, remembering, chunking and identifying main ideas. Identifies settings where consecutive interpreting may be used.
Prerequisite: ITP 101 and SGN 205 with grades of B or better, or consent of program coordinator.

ITP 111 Consecutive Interpreting: ASL to English (3-0) 3 crs. Begins with analyzing texts in American Sign Language, translating them into English, and culminates with interpreting consecutively. Emphasizes comprehension and composition skills. Highlights component skills necessary for interpreting including: remembering, visualizing, paraphrasing and completing linguistic patterns. Introduces select cognitive process models. Reviews demand-control theory and examines paralinguistic challenges encountered while interpreting from ASL to English.
Prerequisite: ITP 101 and SGN 205 with grades of B or better, or consent of program coordinator.

ITP 120 Simultaneous Intepreting: English to ASL I (3-0) 3 crs. Moves from consecutive interpreting and introduces simultaneous interpreting from English to American Sign Language with less time between receiving the source message and delivering the target. Further develops skills addressed and practiced in ITP 110, including message reformulation and comparison of target message to source for equivalence. Introduces expansion techniques and focuses on vocabulary development. Further analyzes cognitive process models.
Prerequisite: ITP 110 with a grade of $C$ or better, or consent of program coordinator.

## ITP 121 Simultaneous Interpreting: ASL to English I

 (3-0)3 crs.
Moves from consecutive interpreting and introduces simultaneous interpreting from American Sign Language to English with less time between receiving the source message and rendering the target. Further develops and refines skills introduced in ITP 111. Emphasizes register variation. Integrates error analysis and selfcorrection techniques. Introduces the teaming process and select partnering techniques. Provides an overview of select interpreting settings.
Prerequisite: ITP 111 with a grade of C or better, or consent of program coordinator.

ITP 200 Transliterating and the Educational Setting (3-0) 3 crs.
Focuses on the development of transliterating skills with monologic and dialogic texts. Students render rehearsed and spontaneous target messages, from spoken to signed English and from signed to spoken English. Emphasizes role and responsibilities of the practitioner in educational settings. Highlights soft skills necessary for this setting and further develops assignment preparation skills. Addresses demandcontrol theory and highlights demands encountered within the educational setting and possible controls.
Prerequisite: ITP 110 and ITP 111 with grades of $C$ or better, or consent of program coordinator.

## ITP 201 Topics in Interpreting (1-0 to 4-0) 1-4 crs.

Presents selected topics in interpreting. The exact content and instructional methodology will vary from semester to semester depending upon the material and topics to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated two times to a maximum of four credit hours.
Prerequisite: Consent of program coordinator.

## ITP 211 Simultaneous Interpreting: ASL to English II

 (3-0)3 crs.
Further develops and refines skills presented in ITP 121. Focuses on interpreting increasingly complex source texts. Emphasizes process management skills and analysis of target message accuracy and acceptability. Addresses cross-cultural equivalency and reviews demand-control theory and highlights paralinguistic challenges encountered while interpreting from American Sign Language to English. Examines select process models.
Prerequisite: ITP 121 with a grade of C or better, or consent of program coordinator.

ITP 215 Interpreting: Dialogic Discourse (4-0) 4 crs.
Provides instruction and practice in the development of dialogic interpreting and transliterating skills in live, unrehearsed situations. Examines turn-taking, cross-cultural behaviors and discourse management skills. Students apply professional ethics and standards of behavior to real-life situations. Students analyze work to determine success of message equivalency. Introduces setting-specific vocabulary, protocol and logistics. Further addresses demand-control theory and examines interpersonal demands and various controls.
Prerequisite: ITP 211 and ITP 216 with grades of C or better, or consent of program coordinator.

## ITP 216 Simultaneous Interpreting: English to ASL II

 (3-0)3 crs.
Reinforces and refines skills addressed in ITP 120, emphasizes developing English to American Sign Language interpreting skills in increasingly complex texts. Allows for practice and analysis of interpreting live presentations. Introduces assignment preparation strategies, public speaking skills, and addresses composure and demeanor. Emphasizes working with a partner and peer feedback. Further examines demand-control theory highlighting paralinguistic demands encountered while interpreting from English to ASL. Provides an overview of select interpreting settings.
Prerequisite: ITP 120 with a grade of C or better, or consent of program coordinator.

ITP 220 Interpreting Practicum (3-10)
Provides opportunities for students to apply their knowledge and skills in a variety of interpreting settings which may include business, education, performing arts, religious and community service. Classroom sessions allow for discussion of ethical issues and business practices. Students will also begin their preparation for state and national credentialing examinations.
Prerequisite: ITP 215 with a grade C or better, and consent of program coordinator.

## JPN Japanese

## JPN 101 Elementary Japanese I (4-0)

Introduces the language skills of pronunciation and useful expressions, listening, speech patterns, syllabary reading and writing, basic vocabulary and grammar. Cultural and sociolinguistic orientation.

## JPN 102 Elementary Japanese II (4-0)

Continues JPN 101. Skill developments in simple, everyday conversation and contemporary and idiomatic expressions; continued mastery of beginning grammar, reading and writing, and more vocabulary. Orientation in verbal and non-verbal skills and simple composition.
Prerequisite: JPN 101 with a grade of C or better, or consent of instructor.

## JPN 201 Intermediate Japanese I (4-0)

Continues JPN 102. Emphasis on more complex conversation and advanced grammatical components; continued reading and writing. Emphasis on advanced composition.
Prerequisite: JPN 102 with a grade of C or better, or consent of instructor.

JPN 202 Intermediate Japanese II (4-0)
4 crs.
Continues JPN 201. Accuracy and ease in more complex conversation; advanced study of reading and writing. Study of more complex syntax and composition. IAI H1 900
Prerequisite: JPN 201 with a grade of C or better, or consent of instructor.

JPN 205 Japenese Intensive Oral Practice (3-0) 3 crs.
Develops oral facility with the Japanese language using specially designed exercises in pronunciation, stress, and rhythm. Discusses individual readings of modern Japanese works in class. Assigns written and oral compositions based on readings. Helps students to bridge the gap between the intermediate and advanced levels. Develops the ability to use the Japanese language with fluency and accuracy of expression that is achieved by extensive oral conversation in class.
Prerequisite: JPN 202 with a grade of C or better, or consent of instructor.

## KIN Kinesiology

## KIN 100 Physical Fitness I (0-2)

Provides a structured aerobic and strength training program designed for individuals free of heart, pulmonary and metabolic disorders. The course offers the student computer assisted fitness evaluations, guidance in developing an individualized exercise prescription and professional supervision. Prior to beginning the program, a physician supervised exercise stress test is required for men over 45 years or older and women over 55 years or older, and all individuals regardless of age who have multiple cardiovascular risk factors. The stress test will be waived, provided a written physician clearance can be obtained. (formerly PED 195)

## KIN 101 Physical Fitness II (0-2)

1 cr.
Continues KIN 100. Introduces other wellness components as well, such as nutrition and stress management. This course may be taken twice for credit. (formerly PED 196)
Prerequisite: KIN 100 with a grade of C or better.
KIN 102 Cardio Kickboxing (0-1) 0.5 crs.
Emphasizes physical conditioning that is set to music that uses movements from boxing, kickboxing and martial arts. This course may be repeated twice for credit.

KIN 103 Exercise Cycling (0-1)
0.5 crs.

Uses stationary bicycles to improve cardiorespiratory endurance, muscle strength and endurance for physical conditioning. Music is used to motivate and establish the pace and rhythm of the workout. This course may be repeated twice for credit.

## KIN 104 Pilo Boxing (0-2)

1 cr.
Teaches physical conditioning by combining techniques and movements used in cardio boxing and Pilates set to music. This course may be repeated twice for credit.

## KIN 105 Aquacise (0-1)

Provides an in-water exercise program which emphasizes the development of cardiopulmonary endurance, flexibility, muscle strength, muscle endurance and general movement efficiency. Music is used to help motivate the students. The fitness guidelines followed in this course are designed for the apparently healthy individual and are not designed for individuals with known cardiovascular, pulmonary or metabolic diseases. Students are encouraged to see a physician before embarking on any exercise program. Students need not be able to swim to participate. This course may be taken twice for credit. (formerly PED 139)

KIN 106 Pilates (0-2)
1 cr.
Employs a system of movements to increase range of motion, balance, strength and awareness of the mind/body connection. This course may be repeated twice for credit.
KIN 107 Yoga I (0-2)
1 cr.
Provides students with the opportunity to develop a strong healthy body and an increased level of mental and physical relaxation through the use of yoga postures and breathing techniques. Students will learn to recognize the presence of tension and be able to consciously relieve it. (formerly PED 122)

KIN 108 Yoga II (0-2)
Provides students with the opportunity to build on the skills they have gained in KIN 107 (formerly PED 122). Special emphasis will be on learning and practicing more advanced yoga postures and breathing. This course is not designed for students who are pregnant or with known heart, pulmonary, metabolic disease or orthopedic problems. Students are encouraged to see a physician before embarking on any exercise program. This course may be taken twice for credit. (formerly PED 128)
Prerequisite: KIN 107 with a grade of C or better, or consent of instructor.

KIN 109 Power Yoga (0-2)
Provides students with an introductory course emphasizing the development, maintenance and improvement of concentration, strength and flexibility through yoga postures and breathing techniques. This course is for students who already have muscular strength and cardiovascular endurance. The fitness guidelines followed in this course are designed for apparently healthy individuals and not designed for individuals with known hearing, pulmonary, or metabolic disease. Students with known orthopedic problems such as back or knee pain should see a physician and receive medical clearance. This course may be taken twice for credit. (formerly PED 123)

KIN 110 Hips, Abs and Thighs (0-1)
0.5 crs.

Uses exercises set to music directed at the body's core to improve muscle strength and endurance. Participants are encouraged to exercise at their own pace in this physical conditioning course. This course may be repeated twice for credit.

KIN 111 Basic Weight Training (0-2) 1 cr. Provides the basic knowledge of the proper use of weight training equipment. Students will learn about the specific muscle groups used during weight training and the different methods of developing muscular strength and endurance. Students will also be able to apply the principles that they have learned and ultimately develop their own individualized program. (formerly PED 104)

KIN 112 Intermediate Weight Training (0-2)
Provides the advanced student with a more challenging strength training program. Students will review the muscles used in a personal strength training program, the safety issues regarding appropriate lifts and use of the equipment, contraindicated movements, stretching and spotting techniques, warm-up and cool down techniques. In addition, students will also learn about the use and misuse of ergogenic aids, steroids and nutritional supplements. Students will have the opportunity to develop and participate in their own individualized muscle strength and endurance training program. (formerly PED 110)
KIN 113 Advanced Weight Training (0-2) 1 cr.
Provides weight training instruction with an emphasis on Olympic and power lifts. Students will have the opportunity to develop advanced weight training skills as well as practice Olympic and power techniques. This course may be taken twice for credit. (formerly PED 106)

KIN 114 Sport Performance Fitness (0-2)
1 cr.
Provides physical conditioning theories and drills for improvement in speed, agility, quickness, strength and power (SAQSP). Applies sport-specific plyometric and high intensity fitness activity. This course may be taken twice for credit. (formerly PED 149)
KIN 115 Boot Camp (0-1) 0.5 crs.
Offers an intense, highly regimented, military style of physical conditioning. Disciplined forms of exercise include use of body weight, simple apparatus and calisthenics to develop all components of fitness. This course may be repeated twice for credit.

KIN 116 Zumba ( $0-1$ ) 0.5 crs.
Provides students with an aerobic workout that uses Latin and International music and dance moves. This is a dynamic and effective workout that combines interval training to maximize cardiovascular fitness. This course may be repeated twice for credit.

KIN 120 Nutrition and Exercise (1-2)
2 crs.
Provides an individual assessment of physical fitness level and dietary habits of each student. Exercise programming and diet recommendations are outlined and encouraged through topical lectures and active participation in exercise. (formerly PED 100)

KIN 139 Physical Activity Topics (0-1 to 0-2) $\mathbf{0 . 5 - 1} \mathbf{c r}$. Provides students with a variety of mind/body modalities to improve physical fitness. Fundamental skills, terminology, proper equipment and safety are emphasized. This course may be repeated twice for credit.

KIN 140 Modern Dance (0-2)
1 cr.
Explores movement potential, increase technical proficiency and broaden rhythm background; skills in technique and composition stressed. This course may be taken twice for credit. (formerly PED 160)

KIN 141 TAP Dance (0-2)
1 cr.
Provides instruction in basic techniques of tap dance. Emphasizes the development of tap dance routines. This course may be taken twice for credit.

KIN 142 Introduction to Ballet (0-2)
1 cr.
Provides instruction for students with little or no previous training in ballet. This course may be taken twice for credit. (formerly PED 162)

KIN 143 Jazz Dance (0-2) 1 cr.
Provides students with the elements of ballet, modern dance and Afro-Haitian to combine them into a dance form that can be idiomatic, syncopated and fast paced. This course may be taken twice for credit. (formerly PED 167)

KIN 144 Hip Hop Dance (0-2)
1 cr .
Provides students with the fundamentals of hip hop dance which includes basic and complex movemenets, musicality, rhythms and spatial awareness. Teaches students general patterns and basics for choreographing routines. This course may be taken twice for credit. (formerly PED 191)

KIN 160 Hap Ki Do (0-2)
1 cr .
Provides a basic understanding, training and practical application of Hap Ki Do self-defense techniques. Includes proper training methods, physical conditioning, and techniques. This course may be taken twice for credit. (formerly PED 144)

KIN 161 Tae Kwon Do (0-2) 1 cr.
Provides a basic understanding, training and practical application of Tae Kwon Do techniques. Includes proper training methods, physical conditioning, techniques, and rules and regulations for contests. This course may be taken twice for credit. (formerly PED 145)

KIN 162 Judo and Self-Defense/Beginning (0-2) 1 cr
Provides a basic understanding and practical application of judo and self-defense techniques. Includes proper training methods, physical conditioning, techniques and rules and regulations for contests. (formerly PED 178)

KIN 163 Judo and Self-Defense/Advanced (0-2) 1 cr
Orientation and instruction in all aspects of judo and self-defense. Provides greater emphasis on Randori and preparation for competition. This course may be taken twice for credit. (formerly PED 179)
Prerequisite: KIN 162 with a grade of C or better, or consent of instructor.

KIN 164 Ju-Jutsu I (0-2)
1 cr.
Introduces Ju-jutsu (Miyama Ryu), the art of the Japanese Samurai from which judo, aikido and karate were derived. Based on mechanical principles, ju-jutsu is designed for self-defense. This non-competitive art is suited for women and men regardless of size and physical condition, stressing technique and attitude. Benefits are improved fitness, coordination, awareness, and defense skills training. (formerly PED 181)

KIN 165 Ju-Jutsu II (0-2)
1 cr.
Continues KIN 164. Building upon the skills obtained in KIN 164, a broader range of more advanced techniques and applications are covered. This course may be taken twice for credit. (formerly PED 183)

Prerequisite: KIN 164 with a grade of C or better, or consent of instructor.

KIN 170 Basketball (0-2)
1 cr.
Provides instruction in the basic skills, rules, scoring and terminology for the sport of basketball. Students will have the opportunity to practice their skills in game situations. This course may be taken twice for credit. (formerly PED 105)

KIN 171 Volleyball (0-1)
0.5 crs.

Provides instruction in the basic skills, rules, scoring and terminology. This course may be taken twice for credit. (formerly PED 109)

KIN 172 Tennis (0-1)
0.5 crs .

Provides instruction of the basic skills, rules and scoring. Students will have the opportunity to practice their skills in both singles and doubles game situations. This course may be taken twice for credit. (formerly PED 158)

KIN 173 Competitive Tennis (0-1)
0.5 crs .

Provides rules, scoring, theory and practice of the skills of competitive tennis. Emphasizes game strategy in singles and doubles play. This course may be taken twice for credit. (formerly PED 159)

KIN 174 Golf (0-1) 0.5 crs .

Introduces students to the fundamentals of golf which include the grip, stance and swing using irons and woods. Terminology, etiquette, scoring and safety standards are also emphasized. This course may be taken twice for credit. (formerly PED 152)

## KIN 175 Swimming: Beginning (0-2)

1 cr.
Provides students with an entry-level swimming class with emphasis on learning the basic skills of swimming and aquatic safety. (formerly PED 153)
KIN 176 Swimming Intermediate and Advanced (0-2) 1 cr. Provides instruction in intermediate and advanced swimming skills with emphasis on learning all the swimming strokes, springboard diving skills, competitive swimming techniques, safety techniques and aquatic fitness. May be repeated up to a maximum of two credit hours. You must be able to swim 50 yards. This course may be taken twice for credit. (formerly PED 154)

KIN 177 Lifeguard Training (0-2)
1 cr.
Provides lifeguard candidates with the skills and knowledge needed to prevent and respond to aquatic emergencies. The course material and activities adhere to the American Red Cross program requirements. Students receive CPR/FPR (Cardio Pulmonary Rescue for the Professional Rescuer), First Aid and Lifeguard Training Certification upon successful completion of this course. (NOTE: Students must be at least I5 years of age to qualify for American Red Cross Lifeguard Training Certification.) This course may be taken twice for credit. (formerly PED 131)

## KIN 178 Bowling (0-2)

1 cr.
Provides students with a progressive sequence in learning both basic and advanced skills. History, techniques, scoring and etiquette will also be covered. This course may be taken twice for credit. (formerly PED 150)

## KIN 179 Wrestling (0-2)

Provides instruction in basic collegiate wrestling techniques. Emphasis is on offensive and defensive moves, strategy and physical conditioning. Students will have the opportunity to practice the skills that they have learned in a competitive situation. This course may be taken twice for credit. (formerly PED 136)

## KIN 180 Fencing (0-2)

1 cr .
Provides students with the beginning fundamentals of fencing with an emphasis in epee. Explains and demonstrates footwork and handwork specific to epee, followed by practice drills in pairs by students with the supervision of the instructor. The fitness guidelines followed in this course are designed for the apparently healthy individual and are not designed for individuals with known cardiovascular, pulmonary or metabolic diseases. Students are encouraged to see a physician before embarking on any exercise program. This course may be taken twice for credit.

## KIN 181 Boxing (0-2)

1 cr.
Provides students with skills and techniques of boxing.
Emphasizes proper stance, technique, footwork, offensive and defensive skills. This course may be repeated twice for credit.

## KIN 182 Racquetball (0-1)

0.5 crs.

Offers the theory and practice of the game of racquetball. Students will learn rules, terminology, etiquette and game strategies. Emphasis will be on developing basic and advanced racquetball skills. This course may be taken twice for credit. (formerly PED 168)

KIN 200 Introduction to the Field of Kinesiology (2-0) 2 crs. Provides orientation and history of the field of kinesiology in the United States. Explores specializations within the Kinesiology major. (formerly PED 200)

KIN 201 Physical Education in Elementary School (3-0) 3 crs. Provides instruction on the growth and development of elementary school children and the planning and organization of elementary physical education programs. (formerly PED 211)

KIN 202 Standard First Aid (3-0)
3 crs.
Provides a comprehensive first aid course which is taught under the guidelines of the American Red Cross. This course includes the American Red Cross Responding to Emergencies component, which covers adult, child and infant Cardiopulmonary Resuscitation (CPR) and the use of the Automated External Defibrillator (AED). This course is designed to prepare students to respond to emergency situations with confidence in their ability to perform the necessary skills. Two certificates are issued-Community CPR and Responding to Emergencies certification-after successful completion of the skills and written tests. (formerly PED 201)

KIN 203 Wellness for Life (2-2)
3 crs.
Provides students with the knowledge of how to become fit and well and the information and tools which will assist them in formulating a personal fitness/wellness program. The course will cover physical fitness, nutrition, weight management, addictive behaviors, diseases which are lifestyle related and stress management. Students are actively involved in their learning process through the use of computers and lab sessions and will be required to attend weekly workout sessions in the fitness center. (formerly PED 213)

KIN 204 Teaching Methods: Track and Field (1-2) 2 crs. Provides an opportunity for students to learn the fundamental skills of Track and Field. Covers rules, training and conditioning, use of technology, coaching techniques, meet administration and the responsibilities of officials with basic officiating. Students are able to apply their knowledge by planning, participating, coaching and officiating their own track and field meet. (formerly PED 220)

KIN 205 Teaching Methods: Soccer (1-2)
Provides the fundamental skills and organizational techniques of the game of soccer. Strategy, rules, terminology, practice drills, conditioning, safety standards, officiating techniques and technology applications are emphasized in the areas of instruction and coaching. Students will have the opportunity to use these skills and techniques in game, teaching and coaching situations. (formerly PED 221)

KIN 206 Teaching Methods: Football (1-2)
2 crs.
Provides the fundamental skills and organizational techniques of the game of football. Strategy, rules, terminology, practice drills, conditioning, safety standards, officiating techniques, and technology applications are emphasized in areas of instruction and coaching. Students will have the opportunity to use these skills and techniques in game, teaching and coaching situations. (formerly PED 222)

KIN 207 Teaching Methods: Volleyball (1-2) 2 crs. Provides the fundamental skills and organizational techniques of the game of volleyball. Strategy, rules, terminology, practice drills, conditioning, safety standards, officiating techniques, and technology applications are emphasized in the areas of instruction and coaching. Students will have the opportunity to use these skills and techniques in game, teaching and coaching situations. (formerly PED 223)

KIN 208 Teaching Methods: Basketball (1-2) 2 crs. Provides the fundamental skills and organizational techniques of the game of basketball. Offensive and defensive playing techniques, game strategy, safety standards, technology applications, officiating techniques coaching, and applications of the basic rules are covered. Students will have the opportunity to use these skills and techniques in game, teaching and coaching situations. (formerly PED 224)

KIN 209 Teaching Methods: Tennis (1-2)
2 crs.
Provides the fundamental skills and organizational techniques of the game of tennis. Strategy, rules, terminology, practice drills, conditioning, safety standards, officiating techniques, and technology applications are emphasized for both singles and doubles play. Students will have the opportunity to use these skills and techniques in game, teaching and coaching situations. (formerly PED 225)

## KIN 210 Teaching Methods: Baseball (1-2) 2 cr

Provides the fundamental skills and organizational techniques of the game of baseball. Strategy, rules, terminology, practice drills, conditioning, safety standards, officiating techniques, and technology applications are emphasized in the areas of instruction and coaching. Students will have the opportunity to use these skills and techniques in game, teaching and coaching situations. (formerly PED 226)

KIN 211 Teaching Methods: Aquatics (1-2)
2 crs.
Provides students with instruction in the planning, development, organization and management of aquatic programs. Students will learn how to utilize technology to improve components of an aquatic program. This course discusses the history of aquatics and covers fundamental skills and techniques. Students will have the opportunity to practice their swimming and water safety skills and techniques. You must be able to swim 50 yards. (formerly PED 228)

## KIN 212 Water Safety Instructor (1-2)

2 crs.
Provides instruction in both the American Red Cross
Fundamentals of Instructor Training (FIT) and Water Safety Instruction (WSI). The following qualifications apply: • Students must be 16 years of age or older on the last day of class. Student must perform rescue techniques and demonstrate water safety skills. Student must swim 50 yards of the following strokes with American Red Cross Level 4 skill accuracy: front crawl, back crawl, elementary backstroke, sidestroke and breaststroke.

- Student must swim 15 yards of the butterfly stroke. • Student must maintain position on back for one minute in deep water while floating or sculling. Student must tread water for one minute. (formerly PED 230)


## KIN 220 Introduction to Coaching (3-0)

3 crs.
Provides students with the knowledge of the critical components involved in the profession of coaching. Helps students develop their coaching philosophy, learn methods of motivating athletes, learn to teach sort techniques and tactics, develop training/fitness conditioning programs, plan season workouts, understand team management, and understand coaching ethics, law and liability. Upon completion of this course, students will be able to take the American Sport Education Program (ASEP) Coaching Principles Certification exam. (NOTE: Passing the certification exam is part of the requirement for obtaining the Bronze Level ASEP Coaching Certification.) (formerly PED 218)

KIN 221 Care and Prevention of Athletic Injuries (2-2) 3 crs. Provides students with the basic principles in the prevention and care of injuries related to sport activities. This course teaches students who plan to coach how to make the correct decisions during athletic play and provides them with the latest first aid protocols. The course meets the requirements for the American Sport Education Program (ASEP) Sport First Aid course. Students have the opportunity to take the ASEP test upon successful completion of the course. The course includes sports first aid, taping and padding techniques, the fitting of protective equipment and the role of coaches, parents, administrators, health care workers, fitness specialists and athletes in injury prevention and care. An introduction to the athletic training profession will also be covered. (formerly PED 219)

KIN 222 Sports Officiating (2-0)
2 crs.
Provides comprehensive instruction on rules and officiating techniques in interscholastic sports. Students will also have the necessary preparation for the Illinois High School Athletic Association certification exam as well as other certifying agencies. Officiating opportunities are provided in college intramural and intercollegiate athletic programs. Some sports covered--but not limited to--are basketball, baseball and volleyball. (formerly PED 210)

KIN 223 Sports Psychology (3-0)
3 crs.
Provides an overview of sport and exercise psychology by focusing on human behavior in certain types of situations in sport and exercise settings. Examines what motivates people, how they regulate their thoughts, feelings and emotions and how their behaviors can become more effective. Also teaches students how to apply these psychological concepts. (formerly PED 272)

KIN 224 Sociology of Sport (3-0)
3 crs.
Provides students with a global and issue-oriented approach to the study of how sport has evolved and influenced us in our society. Examines topics which include--but are not limited to--the effects of sport involvement on socialization; sports and children; violence in sports; gender and sports; race, religion and ethnicity and sports; and sports and the media. (formerly PED 273)

KIN 230 Personal Training I/Exercise Science (2-2) 3 crs
Provides an analysis of basic human movement skills as they relate to exercise and physical fitness. Emphasizes human anatomy and exercise physiology as well as cardiorespiratory development, muscular strength and endurance. Guidelines for training and physical fitness are provided through laboratory experiences. Especially designed for students who plan on becoming a personal trainer, physical education teacher or for those who are entering the fitness field. (formerly PED 208)

KIN 231 Personal Training II/Fitness Assessment Procedures (1-2)

2 crs.
Provides students with a study of the basic scientific components of physical fitness. Includes the measurement of different indices of physical fitness common to corporate, clinical and lab settings. Especially designed for students who plan on becoming a personal trainer, physical education teacher or those who are entering the fitness field. (formerly PED 212)
Prerequisite: Prior or concurrent enrollment in KIN 230 with a grade of $C$ or better, or consent of instructor.

## KIN 232 Personal Training III/Functional Exercise Instruction (1-2) <br> 2 crs.

Provides the academic and practical experience that will enable students who are interested in becoming certified exercise instructors or personal trainers to design and deliver safe and effective physical training programs. (formerly PED 209)
Prerequisite: KIN 230 with a grade of C or better, or consent of instructor.

KIN 234 Personal Training Internship (0-5)
Provides students who plan on becoming a personal trainer, physical education teacher or for those entering the fitness field the opportunity to utilize the knowledge and skills provided in KIN 230 and KIN 231. Students will be assigned to lab settings (fitness centers, clubs) in order to practice their skills and will be under the supervision of both the Harper College physical education instructor and the supervisor of the assigned setting. (formerly PED 214)
Prerequisite: KIN 230 and KIN 231 with grades of C or better, or consent of instructor.

KIN 250 Topics in Kinesiology (1- to 3-0) 1-3 crs
Provides students with an opportunity to examine different topics that fall under the kinesiology field. Content will change from semester to semester. This course may be taken twice up to a maximum of 6 credit hours.

## LEJ Law Enforcement and Justice Administration

LEJ 101 Introduction to Criminal Justice (3-0)<br>3 crs.

Studies the history, role, development, and constitutional aspects of law enforcement and public safety. Review of agencies and functions involved in processes of administration of criminal justice. IAI CRJ 901
LEJ 104 Corrections (3-0)
3 crs.
Provides the student with an integrated knowledge about the system through which the criminal offender is processed. Emphasis will be placed upon the philosophical bases of punishment and treatment techniques in institutional and community-based programs plus parole programs. IAI CRJ 911

## LEJ 107 Vice and Drug Control (3-0) <br> 3 crs.

Studies historical and sociological development of problems in drug addiction and vice control; fundamental understanding of narcotic addiction and effects of hypnotic drugs; the operation of lotteries, bookmaking and other types of gambling and prostitution as these factors are involved in the daily routine of police work.

LEJ 111 Traffic Enforcement and Investigation (3-0) 3 crs. Applies principles of enforcement of traffic laws and the proper way to investigate traffic accidents. This course will address the Illinois Vehicle Code(laws), traffic law enforcement, crash investigations, officer safety issues and Field Sobriety Testing. Methods of documenting evidence are also examined along with hands-on classroom and field projects that increase student knowledge.
Prerequisite: LEJ 101 with a grade of C or better.

## LEJ 116 Forensics I (3-0) <br> 3 crs.

Introduces student to the use of scientific disciplines in crime investigation. Identifies the variety of sources of evidence and the means by which comparative analysis can be made. Introduces student to probability theory. Develops skills in crime scene technology, fingerprinting, photography and recording.

LEJ 135 Patrol Procedures (3-2) 4 crs. Introduces techniques and procedures used by police in jobrelated activities. Includes discussion and practice in areas such as vehicle stops, initiating investigations, responding to calls, building checks, emergency situations, crowd control and report preparation.
Prerequisite: LEJ 101 with a grade of C or better.
LEJ 138 Defensive Techniques (2-2)
3 crs.
Introduces principles of self-defense and weaponless control for police and security personnel. Includes psychology, physical and mental preparation, practice in defense and control techniques. Prerequisite: Signed waiver of liability required.

LEJ 200 Leadership and Ethics for Law Enforcement (3-0)

3 crs.
Prepares students to successfully resolve critical ethical and leadership issues they will encounter in their law enforcement careers. Includes developing and maintaining professional integrity, the proper exercise of discretion and authority, morale and motivation, and responsibility for ethical conduct.
Prerequisite: LEJ 101 and LEJ 210 with grades of C or better.
LEJ 201 Criminal Law (3-0)
Examines local, state and federal criminal law. Topics include a definition of the crimes, their elements, and attendant circumstances and related defenses. IAI CRJ 913
Prerequisite: LEJ 101 with a grade of $C$ or better.
LEJ 202 Criminal Procedures (3-0) 3 crs.
Examines and analyzes federal and state law relating to arrest, search and seizure, First Amendment activities, interrogation, civil liability of police, and trial procedures.
Prerequisite: LEJ 101 with a grade of C or better.

LEJ 205 Juvenile Justice (3-0)
Examines organization, jurisdiction and functions of juvenile agencies. Juvenile court movement, juvenile detention, processing and treatment. Statutes and court procedures for juveniles. Problems of juvenile delinquency, theories of causation and prevention programs. Police responsibilities and contacts, current community, state and federal prevention programs. IAI CRJ 914
Prerequisite: LEJ 101 with a grade of C or better.
LEJ 210 Criminology (3-0)
3 crs.
Examines the nature and extent of crime in American society, theories of crime causation and control of criminal behavior. IAI CRJ 912

LEJ 214 Community Policing (3-0)
Examines issues in community policing with emphasis on the concept of public and community relations as well as police involvement in community problems. Stresses the role of the police in maintaining public order and safety as a member of the community and in partnership with other community constituencies.
Prerequisite: LEJ 101 with a grade of C or better.
LEJ 216 Investigative Process (3-0) 3 crs.
Studies the art of investigation to reconstruct facts and circumstances of any event. Prepares students to plan and execute investigations commonly performed in civil and criminal work with concentration on obtaining direct evidence through interviewing, interrogation, observation and the use of documents and records.
Prerequisite: LEJ 101 with a grade of $C$ or better.
LEJ 217 Forensics II (3-2)
4 crs.
Provides an expanded understanding of the procedures for collection and analysis of physical evidence, concentrating on the evidentiary significance of items commonly found at crime scenes. Includes detailed methods of processing a crime scene; documentation, location and proper collection of evidence; proper handling of evidence; and analytical techniques of interpreting evidence.
Prerequisite: LEJ 116 with a grade of $C$ or better.
LEJ 218 Forensics III (2-4)
4 crs.
Focuses on specialized evidence and reconstruction of crime scenes with the use of hands-on training in advanced techniques of identifying, collecting and preserving physical evidence with the use of luminal, biological presumptive tests, trace evidence, arson and explosive evidence.
Prerequisite: LEJ 217 with a grade of $C$ or better.
LEJ 230 Organized Crime (3-0)
Studies the phenomenon of Organized Crime in America and throughout the world. Focuses on the changing nature of Organized Crime from its traditional underpinnings of the Tammany Hall politics of the east coast to the new wave of Organized Crime concerns in street gangs and newly-arrived ethnic gangs from Eastern Europe, South America and Asia.

## LEJ 281 Topics in Law Enforcement and Justice

 Administration (1-0 to 6-0)1-6 crs.
Examines selected problems or topics in Law Enforcement and Justice Administration. The specific course content and instructional methodology will vary from semester to semester depending on the material presented. A syllabus containing specific topics will be available with pre-registration materials each time the course is offered. This course may be repeated to a maximum of 6 credit hours.
Prerequisite: LEJ 101 with a grade of C or better.

## LEJ 295 Forensics IV (1-4)

3 crs.
Provides a unique course in crime scene investigation incorporating a combination of lecture and hands-on training utilizing advanced techniques of crime scene analysis and reconstruction. Students will process a crime scene from its initial discovery to the testimony in court.
Prerequisite: LEJ 218 with a grade of C or better.
LEJ 299 Law Enforcement Internship (1-10) 3 crs.
Provides student with a broad educational experience through appropriate observation and directed experience in operating segments of law enforcement. Conducted under joint partnership agreements between Harper College and host law enforcement agencies. Students will be assigned to the agency in addition to participation in regularly conducted review sessions to assess the student's progress, problem areas and the work environment to which they are assigned. (Students in last semester will receive priority in assignments.) Permissible duties and activities will be determined based upon the student's qualifications and the agencies needs and restrictions. The students must complete 8 hours of service a week for 14 weeks during the semester to earn 3 semester hours credit.
Prerequisite: Sophomore standing and consent of program coordinator.

## LIT Literature

LIT 105 Poetry (3-0)
3 crs.
Facilitates the understanding, appreciation and enjoyment of poetry. Presents poetry of American, European and other literary philosophies and movements. Challenges students to develop skills in responding personally to poetry and in developing literary analyses. Reveals the link between the whole poem and particular literary qualities such as imagery, figurative language, allusion, connotation, and the music of poetry--sound and rhythm. Offers a forum for exchanging ideas about poetry in guided conversation and writing. IAI H3 903

LIT 110 Drama (3-0) 3 crs. Presents a survey of drama from various countries and eras. The course will include representative selections from such modes as tragedy, comedy, melodrama, romance, satire and social commentary as well as absurdist drama. The selections could include such authors as Ibsen, Miller, Moliere and Shakespeare, among others.(See SPE 111 [Introduction to the Theatre] for theatrical study of drama.) IAI H3 902

## LIT 112 Literature and Film (3-0)

3 crs.
Introduces methods of reading, interpreting and analyzing literary works as well as examining methods used in translating those works to the medium of film. Presents the short story, novel and the drama in conjunction with their cinematic counterparts. Relates the development of film to such schools as German expressionism, film verity, etc. Focuses on analysis of each form both on its own and in relation to the others through reading, viewing and writing. IAI HF 908

## LIT 115 Fiction (3-0)

Presents short stories and novels of high interest level. The selections typify authors and styles representative of major American and European literary movements and philosophies. Challenges the student to develop skills in literary analysis. Students will study characterization, narration, dialogue, plot and various other techniques of fiction. Individual sections may concentrate on particular periods, authors or topics. IAI H3 901
LIT 206 World Literature to 1800 (3-0)
3 crs.
Presents selected works of universal significance contributed by people and civilizations from ancient times to 1800. IAI H3 906

LIT 207 World Literature Since 1800 (3-0)
3 crs.
Continues LIT 206. Selected works of universal significance contributed by people and civilizations from 1800 to the present. IAI H3 907

LIT 208 Non-Western Literature (3-0) 3 crs
Studies selected works from non-western civilizations, such as Africa, China, India, Japan and the Middle East. Fiction, poetry and drama will be included. IAI H3 908N

LIT 210 Introduction to Shakespeare (3-0) 3 crs.
Introduces Shakespeare's acting company, theater and audience. Discusses his techniques in building scenes, developing characters, handling dialogue. Readings and interpretations will consist of representative comedies, tragedies, histories, and problem plays. IAI H3 905

LIT 215 Eastern European Prose Since 1800 (3-0) 3 crs.
Presents a survey of prose, predominantly fiction, starting with the creative outpouring in the early nineteenth century (Lermontov, Gogol) and moving through Soviet and postSoviet writing from socialist realism to glasnost and beyond (Sholokhov, Solzhenitsyn, Klima, Kundera, Pavic). Other writers may include Tolstoy, Dostoevsky, Turgenev, Chekhov, Babel, Bely, Bulgakov, Mandelstam, Nabokov and Pasternak. Not limited to Russian literature, this course encompasses a wide range of Eastern European writers that may include Albanians, Bosnians, Bulgarians, Croats, Czechs, Hungarians, Poles, Serbs, Slovenes, Ukrainians, Roma, and others. Political, cultural, and historical background will help to illuminate crucial differences between these groups as reflected through literature. All texts taught in English translation.

LIT 216 Science Fiction (3-0) 3 crs. Surveys science fiction short stories and novels. Considers science fiction as popular literature and assesses its unique contribution to the history of ideas.

## LIT 217 Crime Literature (3-0) <br> 3 crs.

Examines various subgenres of crime literature of various length, either thematically or historically. Analyzes the literary predecessors of these works and crime literature's influence upon other genres of literature.

LIT 219 Children's Literature (3-0)
3 crs.
Introduces the various types of children's literature. Includes the history of children's literature, as well as the classic and current authors and illustrators. Covers such areas as picture and concept books, myths, poetry, fantasy and realism.

LIT 220 Japanese Literature in Translation (3-0) 3 crs. Surveys English-language translations of Japanese poetry, fiction, and nonfiction. Reviews Noh and Kabuki drama and selections from Japanese cinema. Works will be studied in the context of Japanese history, but each work will be studied also as the product of its author's creative self-expression. No speaking or reading knowledge of Japanese is required; no background knowledge of Japan is required. IAI H3 909

## LIT 221 American Literature-Colonial Days to Civil War (3-0) <br> 3 crs.

Presents American literature as an expression of American life through early social and political documents, novels, short stories and poems. IAI H3 914

LIT 222 American Literature--the Civil War to Present (3-0)

3 crs.
Explores American prose, drama, and poetry, Civil War
to present, including minority literature, regional literature literary journalism, criticism, and social and historical novels in their historical, social and cultural context to reflect current controversies and social changes. IAI H3 915

LIT 223 Minority Literature in America (3-0) 3 crs. Investigates what it means to be a minority in the United States. Examines the ways in which minority writers, through fiction, nonfiction, poetry, and drama, question the quality of American life and the authenticity of American democracy, thus helping students appreciate more fully the range of American cultures and subcultures. May include such writers as Olaudah Equiano, Frederick Douglass, Amiri Baraka, Rudolfo Anaya, Leslie Marmon Silko, Toni Morrison, Rita Dove, Leslea Newman, Li-Young Lee, Vassar Miller, Vivienne Finch. IAI H3 910D

## LIT 224 Women in Literature (3-0)

3 crs.
Examines the evolving portrayal of women--the many images, impressions and stereotypes in literature. Includes literature written about women and by women. Selections reflect a diversity of cultures, eras, authors and genres. The student will read selections from such authors as Bronte, Chekhov, Chopin, Hardy, Morrison and Woolf. IAI H3 911D

LIT 231 English Literature to 1800 (3-0)
3 crs.
Surveys English writers from beginning English literature to 1800.
Reading and interpretation of writers such as Boswell, Chaucer,
Congreve, Donne, Dryden, Johnson, Jonson, Malory, Milton,
Pope and Swift. IAI H3 912
LIT 232 English Literature 1800-1914 (3-0)
3 crs.
Survey of English writers from Romantic Period to World War I. Reading and interpretation of writers such as Austen, Browning, Byron, Conrad, Dickens, Hardy, Keats, Shaw, Tennyson and Wordsworth. IAI H3 913

## LIT 241 20th Century British and American Literature (3-0) <br> 3 crs. <br> Surveys important writers and writings of British and American

 literature since World War I.LIT 250 Topics in Literature (1- to 3-) 1-3 crs.
Examines selected eras or topics in the various fields of literature and literary theory. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A topic-specific syllabus containing additional information will be available in the Liberal Arts Division Office with other pre-registration materials each time the course is offered. This course may be repeated to a maximum of 12 credit hours.

## LNG Linguistics

LNG 105 Introduction to Language and Linguistics (3-0) 3 crs. Explores language--its origins, properties, use, structure, and meaning. Studies sound systems, word-information systems, syntactic systems, and derivation of meaning from spoken and written forms. Includes first and second language acquisition and properties of visual languages.

LNG 205 Language and Culture (3-0)
3 crs.
Explores the relationship between language and culture. Includes the language socialization of children, gender differences in language, standard varieties and dialects of language, and the effect of language on thought. Examines the nature of language in power relationships.

## LNG 220 Methods of Teaching English as a Second Language

 (3-0)3 crs.
Introduces the teaching of English to speakers of other languages.
Intended for those who contemplate a career working with nonnative speakers of English. Through a program of lectures, readings, discussions, observations and practical teaching exercises, students will explore the educational contexts in which English is taught and learned. In addition, the course will offer practical techniques for teaching and assessing the skill areas of listening and speaking, reading, writing, and grammar. The foundation of the methods explored will be based on theories in applied linguistics.

## MCM Mass Communication

MCM 120 Introduction to Mass Communication (3-0) 3 crs.
Examines the history, technical development and cultural impact of the media, including books, newspapers, magazines, radio, sound recording, movies, television, and the Internet; as well as the related areas of public relations and advertising. Focuses on media convergence, trends and issues. Analyzes the impact and effects of the media on our consumer culture and democratic system. Encourages critical evaluation of the media. IAI MC 911

MCM 126 Introduction to Broadcasting (3-0) 3 crs.
Introduces the basic history, technology and terminology of the radio and television broadcasting and cable industries. Explores commercial and non-commercial station operation, the roles of advertising and ratings, programming trends and career opportunities. Examines the effects of mega mergers and media convergence and the cultural impact of broadcasting over the years. Recognizes the importance of regulation, legislation and community standards in broadcasting. IAI MC 914

MCM 130 Introduction to Journalism (3-0)
Introduces basics of writing for the media and Associated Press (AP)style, focusing on print journalism. Explores the history, legal and ethical concerns, and culture of journalism. Develops fundamental skills in writing, interviewing, and conducting research using traditional and Internet sources. Emphasizes accuracy, conciseness, grammar and spelling skills. Explores career opportunities in journalism. Some beginning reporting and writing in computer lab. IAI MC 919
MCM 131 News Reporting and Writing (3-0) 3 crs.
Presents theory and techniques for gathering and writing news in political, police, social and civic coverage. Develops advanced reportorial and writing skills. Uses industry standard computer hardware and software. IAI MC 919
Prerequisite: MCM 130 with a grade of C or better.
MCM 133 Feature Writing (3-0)
3 crs.
Focuses on writing and selling non-fiction articles. Develops the techniques to analyze markets, develop story ideas, prepare the query and submit the article. Stresses the importance of interviewing and researching, descriptive language and writing with clarity. Uses Macintosh computers with current word processing programs.
MCM 136 Broadcast Writing (3-0)
3 crs.
Develops skills needed to write for the broadcast media including television, radio and film. Focuses on the oral style. Emphasizes gathering of information, interviewing, writing and editing scripts and writing continuity for video or film. Examines the legal, ethical and social implications of broadcast writing and programming. IAI MC 917

MCM 137 Media Writing (3-0)
3 crs.
Provides an overview of the various formats and structures used in writing for the media. Includes writing for newspapers, radio and television stations, advertising and public relations agencies, business and industrial communications and new media technology. Focuses on information gathering, the elements of good writing, and matching message and audience.

## MCM 140 Writing, Editing, and Design for the Internet

 (2-2)3 crs.
Introduces the writing styles, design principles and techniques to develop and manage web sites for journalism outlets such as newspapers, magazines and broadcast stations. Demonstrates the design process through storyboarding. Illustrates considerations in planning navigation, linking and site maps. Includes transferring photos, audio and video images using web design software. Discusses legal and ethical issues that apply to new media. Upon completion of this course, students are strongly encouraged to select WEB 150 to further their knowledge of Internet technology and Web-authoring tools. IAI MC 922 Prerequisite: MCM 130 and WEB 101 with grades of $C$ or better.

## MCM 141 Basic News Editing (2-2)

3 crs.
Introduces the principles and techniques of copy editing for newspapers. Demonstrates the process of editing and rewriting while maintaining story's original focus. Students will learn to write appropriate headlines and cutlines, and to select and edit wire service copy. Builds on Associated Press (AP) style knowledge. Teaches layout and design basics including typography and incorporating photos and other visual elements. Emphasizes legal and ethical concerns editors face in decision making on deadline schedule. IAI MC 920
Prerequisite: MCM 130 and MCM 131 with grades of C or better.
MCM 230 Graphic Design Communication (3-0) 3 crs. Introduces students to contemporary design, photo manipulation, Web page design, animation, audio techniques and page layout necessary for producing a variety of journalistic publications.

MCM 233 Introduction to Public Relations (3-0)
3 crs.
Explores the history, theory, practice and role of public relations in government, corporate, non-profit, and private organizations. Introduces students to the business and creative aspects of public relations, as well as the complexities of issue management. Students will prepare original public relations campaigns for print, broadcast and electronic media. Familiarizes the student with computer software for desktop publishing. Recommended preparation: MCM 230 with a grade of C or better, or computer design experience. IAI MC 913

MCM 235 Magazine Editing and Design (3-0) 3 crs. Introduces advanced writing, rewriting, and editing practices. Teaches students how to produce various publications using computer applications. Focuses on preparation and production of magazines, flyers, brochures, newsletters, and annual reports. Incorporates writing, copy editing, photography and illustrations, typography, page design, and printing. Students produce a publication as a class project. Recommended preparation: MCM 230 with a grade of $C$ or better, or computer design experience.

MCM 240 Topics in Mass Communications (1-0 to 6-0) 1-6 crs. Studies selected problems or topics in mass communication. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information with preregistration materials will be available each time the course is offered. This course may be repeated up to a maximum of six credit hours.

MCM 241 Online Magazine Publishing (2-2) 3 crs. Explores online magazine publishing for new media writers and designers. Focuses on the preparation and publication of an online magazine through writing, page design, and Web site usage.
Prerequisite: MCM 140 with a grade of C or better.

## MCM 242 Using the Internet as a Communications Tool

(2-0) 2 crs.
Explores the theory and practice of using the world wide web for communication. Introduces students to the journalistic and creative aspects of using the Web for training, advertising, marketing, and research.
Prerequisite: WEB 101 with a grade of C or better, or consent of instructor.

MCM 243 Communication Web Site Applications (2-2) 3 crs. Applies writing and design skills to create a communications Web site for businesses from start to finish, including background information and links to related sites.
Prerequisite: MCM 241 with a grade of C or better.
MCM 250 Public Relations Writing and Production (3-0) 3 crs. Focuses on the development of speed, clarity, brevity and style in writing for a range of audiences. Stresses the role of the public relations specialist as a bridge between the interests of the client organization and its stakeholders. Teaches how to write professionally in formats most frequently used by the public relations practitioners including new releases, feature articles, brochures, newsletters and public service announcements. Prerequisite: ENG 101 and MCM 233 with grades of C or better.

MCM 251 Media Interviewing (3-0) 3 crs.
Explores the critical art of interviewing. Teaches skills from both sides of the interview process including basic psychology and techniques of cultivating contacts, dealing with difficult sources, retrieving sensitive information, and tracking down elusive people. Focuses on preparation for the conducting of a strong interview to aid in the production of materials for print, broadcast or electronic media. Also explores confidentiality and interview ethics.
Prerequisite: MCM 131 or MCM 137 with grades of C or better.
MCM 252 Special Events and Promotions (3-0) 3 crs. Introduces students to one of the key tools of the public relations practitioner, the special event. Focuses on the role special events and promotions play in organizational communication including understanding the function, implementation and evaluation of the event. Identifies the various kinds of events and their particular uses. Covers the special event planning process, creative brainstorming, budgeting, overcoming obstacles, attracting sponsorships, soliciting volunteers and event evaluations. Prerequisite: MCM 233 with a grade of C or better.
MCM 260 Campaign Communication and Message Design (3-0)

3 crs.
Explores the development and execution of comprehensive public relations campaigns within real-world circumstances. Examines what an organization's expectations of a public relations practitioner are and how to use this function to support other departments of the organization. Focuses on contemporary cases and the public relations tools necessary for effective strategic campaigns. This course is a capstone experience for public relations students and takes a hands-on approach to creating a public relations campaign for a client.
Prerequisite: MCM 250 with a grade of C or better.

## MFT Manufacturing Technology

MFT 102 Introduction to Manufacturing and Safety (3-2) 4 crs. Provides the student with an introduction to the manufacturing world and provides specific instruction to facilitate safe work practices in industrial environments. Introduces manufacturing specializations such as mechatronics, precision machining and welding. Covers fire safety, pressurized gases, electrical hazards, and safe machine usage. Students will also become acquainted with OSHA policy. Students will have the opportunity to earn the Safety Certification through Manufacturing Skill Standards Council (MSSC).

MFT 104 Quality and Measurement (1-2)
2 crs.
Provides an introduction to controlling and improving quality in a manufacturing setting. Explores ways that manufacturers use data and analysis to improve quality. Students will have the opportunity to earn the Quality and Measurement Certifications through the Manufacturing Skills Standards Council (MSSC).
Prerequisite: Prior or concurrent enrollment in MFT 102.
MFT 105 Machining Processes I (2-4)
4 crs.
Covers fundamentals of machine shop theory and safe practice. Provides familiarization with tools, equipment, and practices of tool, die, and precision metal working industries. Includes introduction to mills, drill press, lathes, and surface grinders. Students are provided classroom and laboratory learning experiences while making a working tool. Students may earn NIMS credentials in Lath, Drill Press, Benchwork and Layout.

MFT 108 Manufacturing Processes (2-2)
3 crs.
Provides the basics of how manufacturing transforms materials into products. Students will learn about the varying types of production and will learn about the materials that are used in production and the types of processes used in manufacturing including machining, casting and assembly.
Prerequisite: MFT 102 with a grade of C or better.
MFT 109 Introduction to Manufacturing Maintenance $\quad 2$ crs.
(1-2)
Provides a basic understanding of tools and equipment used in manufacturing and knowledge of how to improve productivity through predictive and preventive maintenance.
Prerequisite: MFT 102 with a grade of C or better.
MFT 119 Manufacturing Internship (1-10)
2 crs.
Applies and expands manufacturing skills and knowledge in the workplace environment. Students will have an on-site supervisor who will assign duties in the workplace. Regularly scheduled face-to-face on-campus sessions will be conducted to assess the student's progress, problem areas and to review appropriateness of work involvement. Actual permissible duties and activities will be determined based upon the student's knowledge and skills. The student must complete a minimum of 100 hours at the work site. NOTE: Student must also have NCRC Exam Level Silver and four MSSC Certificates prior to enrolling in this course.
Prerequisite: MFT 102, MFT 104, MFT 108 and MFT 109 with grades of $C$ or better.

## MFT 120 Machining Processes II (1-4)

3 crs.
Covers advanced machine shop theory with emphasis on safe practices and applications. Includes lathes, grinders (I.D., O.D. and surface), milling machines and tool grinders. Studies production machining, feed and speed applications and quality control techniques applied to precision machining. Introduces gage blocks, height gages, magnetic sine plate and modern indexable tooling. Students may earn NIMS credentials Mill 2, Lath 2, and Grinding 1.
Prerequisite: MFT 105 and (MTH 097, MTH 101, MTH 103 or higher) with grades of $C$ or better.

MFT 123 Introduction to CNC Machining (3-2) 3 crs. Introduces setup and operation of CNC machining and turning centers. Teaches CNC machine tool controls through laboratory experiences and the manufacture of pre-programmed parts including part holding techniques, alignment, process planning, tooling for CNC machine tools, and inspection of machined products. Students may earn NIMS Level 1 CNC Operator credential.
Prerequisite: Prior or concurrent enrollment in MFT 120 with a grade of $C$ or better.

MFT 125 CNC Lathe Operation and Programming (1-4) 3 crs. Covers the principles and operation of CNC (Computer Numerical Control) machine tools with an emphasis on the set up and operation of lathes. Includes safety, turning, grooving, drilling, boring, threading, cutting tools, and introduction to CNC programming on common industry controls including Haas, Fanuc and Siemens. Students may earn NIMS Level I CNC Lathe Programming Set Up and Operator credential.
Prerequisite: MFT 123 with a grade of C or better.
MFT 128 CNC Mill Operation and Programming (1-4) 3 crs. Covers the principles and operation of CNC (Computer Numerical Control) machine tools with an emphasis on the set up and operation of vertical and horizontal mills. Includes safety, turning, drilling, boring, threading, cutting tools, to CNC mill programming, practices and setups on common industry controls including Haas, Fanuc and Siemens. Students may earn NIMS Level I CNC Mill Programming Setup Operator credential.
Prerequisite: MFT 123 with a grade of C or better.
MFT 130 Machining Blueprints (1-1)
1 cr.
Provides students in the machine trades to develop the basic skills required for visualizing and interpreting industrial prints, geometric dimensioning and the impact of computer drafting as related to the machine trades.
Prerequisite: MFT 105 and MNT 111 with grades of C or better.
MFT 201 Advanced CNC (2-6)
Studies CNC (Computer Numerically Controlled) lathe and mill processes, advanced programming on Haas, Fanuc, and Siemens controls, with an emphasis on additional thread form turning, turning eccentrics, precision boring, ring grooving, and form tool cutting. Also includes an introduction to CAD-CAM programming. Students may earn NIMS Level II Lathe and Mill Setup, Operator and Programmer Credential.
Prerequisite: MFT 125 and MFT 128 with grades of C or better.

## MFT 265 Properties of Materials (1-2) 2 crs.

 Introduces the basic concepts of materials including composition, properties and usage in manufacturing processes. Provides an overview of the properties of materials as modified by heat treatment, welding and machining processes with an emphasis on metals.Prerequisite: MFT 105 or WLD 110 with a grade of $C$ or better.

## MGT Management

MGT 111 Introduction to Business Organization (3-0)
Introduces the nature of business and the environment in which it operates. Forms of business ownership, introduction to operative and facilitating facets of business operation, management, marketing, accounting, statistics, business law, finance, investments, insurance and labor-management relations.

MGT 115 Introduction to International Business (3-0) 3 crs. Provides introductory concepts, principles and practices of the international business environment. The issues include the nature of international business; international organizations and monetary systems; the various foreign forces such as labor, legal, political, and cultural; and the impact on the U.S. economy and business.

MGT 150 Business Math (3-0)
3 crs.
Introduces arithmetic as a tool of business. Topics include fractions, decimals and percentages, computations of interest, bank discounts, depreciation, commissions, compound interest, payrolls and taxes and graph and chart design. Students must score satisfactorily on a mathematics placement test prior to registering for this course.
Prerequisite: MTH 054 or MTH 055 with a grade of C or better, or placement test.

MGT 154 Small Business Management (3-0) 3 crs.
Organization and operation of the small-scale retail, trading, service or manufacturing business. Location, financing, marketing, labor, accounting, and in the case of manufacturing, production plus related problems of stock control, taxes and insurance.

MGT 160 Principles of Supervision (3-0)
3 crs.
Introduces the responsibilities of the first or second echelon supervisor in either the industrial or administrative environment. Leadership qualities, human relations skills, motivation, communications, training techniques and problems of the work group are discussed.
MGT 165 International Management (3-0) 3 crs.
Analyzes the problems and practices in international business management activities. The issues include American management techniques in foreign settings, comparative management among different countries and the complexity introduced by the management of international companies. The course focuses on international organizational functioning to help the student gain a diversity of views.
Prerequisite: MGT 111.
MGT 168 OSHA Standards and Compliance Procedures (3-0)

3 crs.
Develops skills and competencies needed in instituting proper occupational safety and health environment in commercial and manufacturing business establishments for compliance with federal OSHA standards.

## MGT 170 Principles of Individual Financial Planning

 (3-0)Introduces the student to the fundamentals of equity and fixed Introduces the student to the fundamentals of equity and fixed
income investing. The course will also explore other investment management subjects such as mutual funds, international investing and retirement planning as well as tax-advantaged investments. Basic derivatives such as futures and options will also be discussed. (Credit will be given for either BFC 200 or MGT 170, but not both.)

MGT 204 Training and Development (3-0
3 crs.
Introduces the student to the principles of training practices with emphasis on the concerns of human learning: acquisition, retention and transfer of skills. Includes supervisory and management skills, designing performance goals, MBO (Management by Objectives), forming lesson plans, mechanics of training, experiential instruction, role playing, case studies and technologies available.

MGT 205 Leadership Foundations (1-0)
Introduces the concept of leadership and the impact a leader has on an organization. Emphasis is on the values of leadership traits, motives of recognized leaders and their styles and ethical behavior.

## MGT 206 Leadership Skills (1-0) 1 cr.

Explores skill areas necessary for the successful leader in any organization. Emphasis is on problem-solving, motivation, conflict and negotiations, organizational vision and cultural diversity.

MGT 207 Leadership Trends (1-0)
Examines the impact of the future on leadership development today. Connects the need to understand one's self with internal and external influences on an organization in order to better prepare the leader for the 21st century.

MGT 211 Internship in Small Business (1-15) 3 crs. Provides cooperative work experience working in a small business. Credit is given for participation in a supervised work experience. The work must take place in a College-approved workstation.
Prerequisite: MGT 154 and 3 credit hours in MGT or MKT course work,or consent of program coordinator.

MGT 218 Introduction to Finance (3-0)
3 crs.
Methods of financing business enterprises and their relationships to personal and company investment policies.
Prerequisite: ACC 101 and MGT 111.
MGT 225 Applied General Statistics (4-0)
4 crs.
Introduces both descriptive and inductive statistics. Collection of data; frequency distributions and measures of data; frequency distributions and measures of location (mean, median, mode); measures of variation; probability, theoretical distributions including sampling distributions, estimation, tests of hypotheses; correlation, regression analysis, and index numbers; and time series. Computer applications using Microsoft Excel are included. (Credit will be given for either MGT 225 or MTH 165 or MTH 162, but not all.) IAI M1 902, IAI BUS 901
Prerequisite: MTH 070 (or equivalent) with a grade of C or better or Geometry placement test AND MTH 080 with a grade of C or better or placement test. An ACT Math score of 23 or more will satisfy all the previous prerequisites mentioned for this course.

MGT 230 Topics in Business (0.5-0 to 3-0)
0.5-3 crs.

Studies selected problems or topics in business. The exact contents and instructional method will vary from semester to semester. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated two times to a maximum of three credit hours.

MGT 254 Small Business Formation (3-0) 3 crs.
Examines the problems in starting, expanding, and diversifying a small business. Includes forms of ownership; evaluation of risk in various types of businesses; performance measurement and market research; site location and layout; growth and trend analysis. It is recommended that MGT 154 be taken prior to enrollment.

MGT 265 Human Resources Management (3-0) 3 crs Addresses personnel problems and labor relations. Employment techniques, wages and hours, job evaluation, training, rating, collective bargaining, pensions, and fringe benefits will be examined.
Prerequisite: MGT 111.
MGT 266 Wage Analysis and Administration (3-0) 3 crs. Studies the compensation and process: wage, salaries, wage theory and legal considerations. Examines various fringe benefits, profit sharing, job analysis, and its evaluations.
Prerequisite: MGT 265.
MGT 270 Principles of Management (3-0)
Presents the theory and major functions of management and describes the role of the manager. Major concepts in organization are developed along with an understanding of the decisionmaking process and consideration of the human factor in management.
Prerequisite: MGT 111.
MGT 274 Operations Management (3-0)
3 crs.
Introduces the student to operations management stressing operational problems. The characteristics of industrial enterprise, the problems of materials procurement, plant organization and layout, labor relations and personnel policies, efficiency techniques, automation and production development are considered. Related problems of inventory control, quality control, production control and budgetary control are included.
Prerequisite: MGT 111.
MGT 275 Labor-Management Relations (3-0)
Deals with the processes and the framework that influences the relationship between management and labor. The history of the labor movement, collective bargaining process, labor contract dispute resolution, labor and employment law, and the characteristics of both the public and private sector are discussed.

MGT 276 Collective Bargaining (3-0)
3 crs.
Studies the collective bargaining method preparations and patterns; strategies and tactics of negotiations; and the use of mediators and arbitrators.

## Prerequisite: MGT 265.

MGT 280 Organizational Behavior (3-0) 3 crs.
Emphasizes a managerial and interpersonal relations process approach to problem solving, communication and group dynamics. Specific treatment is given to managing change, appraisal and reward, solving communication problems, status needs of the work force, understanding individuals, group dynamics and reducing conflict.
Prerequisite: MGT 111.

## MGT 291 Problems in Management and Supervision

 (3-0)3 crs.
Provides the student with a logical integration of management principles with representative supervisory problems found in business firms. Emphasizes decision-making throught the use of case problems, simulation and directed reading.
Prerequisite: MGT 111, MGT 270 and 3 credit hours in MGT or MKT course work, or consent of program coordinator.

## MKT Marketing

MKT 105 Sports Marketing (3-0)
3 crs.
Focuses on the strategic marketing process as it is applied to the sports industry. Topics to be investigated include sponsorships, understanding spectators as consumers, and the application of the marketing mix in a sports environment.

MKT 106 Retail Merchandising (3-0)
Focuses upon the merchandising activities related to hardlines, apparel, and other softline merchandise. Examines the role and qualifications of the buyer and the influence of consumer preference. Includes budgeting by dollars and assortment, pricing strategy, managing assortments, the selection and promotion of merchandise, and the coordinator of merchandising functions and processes.

MKT 110 Retail Store Layout and Imaging (2-0) 2 crs. Examines the importance and relationship of store layout, image projection, interior merchandise presentation and site location to store success. This course is designed to allow the learner to understand the relationship of image and product positioning to sales and profit. Emphasis is placed on layout, space allocation, interior merchandise presentation and store operations.

## MKT 120 Customer Service (1-0)

1 cr.
Studies the importance of customer service satisfaction and the functions of various customer relation systems. This course is designed to promote an understanding of customer service in general and how it specifically contributes to the success of the marketplace and individual businesses. Emphasis is placed on the importance of striving for excellence in service to win and hold customers and to gain a competitive advantage.

MKT 140 Principles of Professional Selling (3-0) 3 crs. Focuses upon the principal factors of successful selling of goods or ideas. Examines buying motives, sales psychology, customer approach and sales techniques.

## MKT 141 Sales Management (3-0)

3 crs.
Focuses on the responsibilities of the sales executive in planning and evaluating sales activities as well as supervision of a sales force. Attention is given to the administrative activities of sales managers at all levels with emphasis directed to the management of sales forces of manufacturers, service marketers and wholesaling middlemen.
Prerequisite: MKT 140 or consent of program coordinator.

MKT 190 Export Documentation (3-0)
3 crs.
Provides an understanding of the procedures and necessary documentation for exporting both goods and services. Course content will covers shipping documentation as well as insurance, banking and finance and governmental forms required for export marketing.
Prerequisite: MKT 260 or consent of program coordinator.
MKT 191 Business in the European Union (3-0) 3 crs.
Presents a general overview of cultural, political and economic infrastructure characteristics in the European Union with an emphasis on how these affect businesses in the United States. Focuses on unique and similar characteristics of member countries, and trade relationships and opportunities.

MKT 193 Business in Asia (3-0)
Studies of global business applications in Asia. Researches economic, social, political, technological and competitive factors. Explores relationships among countries and geographic pacts (including ASEAN and APEC).

MKT 196 Business in Latin America (3-0)
Presents a general overview of cultural, political and economic conditions in Latin America (including the Caribbean, Central America, Mexico and South America) with an emphasis on how these affect businesses in the United States. Studies regional trade pacts such as NAFTA, FTA and MERCOSUR.

MKT 202 Marketing for Non-Profit Organizations (3-0)
3 crs.
Provides practical applications in marketing for non-profit organizations. Encompasses the entire marketing process including positioning, targeting, and effective research methods.
MKT 217 Advertising (3-0)
3 crs.
Purposes of advertising, how advertisements are prepared and delivered in media, and how effectiveness of advertising is measured and evaluated in relation to the selling and marketing process. IAI MC 912
Prerequisite: MKT 245 or consent of instructor.
MKT 240 Advanced Sales Strategies (3-0)
3 crs.
Develops and refines sales techniques established in previous course work and/or on-the-job sales experience. Opportunities will be available to apply specific selling skills to various sales situations and product categories through presentations and term projects.
Prerequisite: MKT 140 or consent of instructor.
MKT 245 Principles of Marketing (3-0)
3 crs.
Focuses on marketing activities that will cover product planning, pricing strategies and promotional efforts including advertising, selling and sales promotions and distribution channel effectiveness.

MKT 246 Business to Business Marketing (3-0) 3 crs. Provides a comprehensive understanding of industrial marketing by analyzing concepts and techniques in each of the major functional areas of industrial marketing. Topics to be investigated would include market development, product planning, price competition, promotional strategies, customer relations and marketing logistics.
Prerequisite: MKT 245 or consent of coordinator.
MKT 247 Consumer Buying Behavior (3-0) 3 crs.
Reviews and analyzes areas of consumer and organizational buying behavior that guide marketing management decisions. The focus of the course will be directed toward the application of concepts on buying behavior to specific functional areas of marketing management in both the industrial and consumer markets.

MKT 248 Direct Marketing (3-0)
Explores the principles involved in the introduction of goods and services directly to the customer through various media sources without the use of a retail facility. Emphasis is placed on determining the correct target market, creating a measurable database, measuring the rate of response, selection and planning of media, and strategic implementation of a planned campaign. Development of direct mail pieces, telemarketing tools and broadcast and print media will be covered.
Prerequisite: MKT 245 or consent of program coordinator.

## MKT 250 Retailing (3-0)

3 crs.
Surveys types of retail institutions, including consideration of store location and organizational procedures, buying and merchandising practices, promotional and personnel policies.

## MKT 251 Retail Merchandise Management (3-0)

Emphasizes the nature and importance of retail merchandise management in relation to the success of the retail firm. The student will demonstrate knowledge and decision making skills of retail management by using case study and problem solving activities to interpret and analyze information faced by merchandise department managers, buyers and independent retailers. The focus will be on strategic merchandise planning; advanced purchasing and pricing strategies; inventory valuation and analysis of profit and productivity performance.
Prerequisite: MKT 106 or MKT 250.

## MKT 252 Internet Marketing (3-0) <br> 3 crs.

Presents techniques on how to design, maintain, and market effective digital storefronts. Focuses on communicating, selling, and providing content to Web-based stores and other Internet businesses.

## MKT 255 Marketing Research (3-0)

3 crs.
Provides students with a basic overview of marketing research. Includes an understanding of how and why marketing research is conducted and how it interacts with marketing decision making. Prerequisite: MKT 245 or consent of program coordinator.

MKT 260 International Marketing (3-0)
3 crs.
Allows students to gain a broad understanding of the field of international marketing. It also provides insight into how international marketing is conducted, the requisites for effective performance and knowledge of the special problems involved in language, finance and customs. Most importantly, it assists students in understanding international marketing problems and how marketing procedures apply to international business.
MKT 280 Marketing Problems (3-0)
3 crs.
Focuses on the application of marketing skills and knowledge to marketing problems, case studies, projects or decision-making simulation.
Prerequisite: MKT 245 and 3 credit hours in MGT or MKT course work, or consent of program coordinator.

MKT 281 Internship in Marketing (1-15)
3 crs.
Provides work experience in a marketing-related field. Credit is given for participation in a supervised work experience wherein an organized training plan will be followed at a College-approved training station. One lecture hour per week for a seminar devoted to issues dealing with preparation for success in a marketing career.
Prerequisite: MKT 245 and 3 credit hours in MGT or MKT course work, or consent of program coordinator.
MKT 285 Topics in Marketing (0.5-0 to 3-0) 0.5-3 crs. Studies selected problems or topics in marketing. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated two times to a maximum of three credit hours.

MKT 290 Global Trade (3-0)
3 crs.
Provides a conceptual overview of the world marketing environment with emphasis on both global exporting and importing. Introduces students to marketing strategies and procedures to capitalize on domestic and overseas world trade potential.
Prerequisite: MKT 260 and 3 credit hours in MGT or MKT course work, or consent of program coordinator.

## MNT Maintenance

MNT 111 Prints and Schematics (1-2)
2 crs.
Develops understanding and skills necessary to read and interpret building blueprints including engineering site drawings. Emphasizes plan, elevation and section projection techniques.
Provides experience using commercial product sketches, schematics and electrical ladder diagrams.

MNT 115 Basic Carpentry (1-2) 2 crs.
Covers basic knowledge of wood materials, products for construction, framing and safety. Techniques for using measuring, layout and hand tools are covered. Principles of stationary and portable power tools including pneumatic nailers will be demonstrated.

MNT 125 Basic Plumbing (1-2) 2 crs.
Covers working knowledge and basic plumbing skills for installations and maintenance. Provides experience in pipe material selection, assembly, and tools commonly used by plumbers in their daily work.

MNT 215 Commercial Carpentry (1-2) 2 crs.
Covers advanced framing with floor and roof trusses, structural steel beams and columns, $\mathrm{BCl}-$ Joists and GlueLam girders. Metal stud framing techniques for commercial codes are developed for both field cut and shop fabrication of building walls and roofs. Prerequisite: MNT 115 with a grade of " C " or better.

MNT 225 Commercial Plumbing (1-2) 2 crs. Covers methods for removing, installing, supporting safely, reconnecting and testing drain, vent and waste systems. Provides techniques for controlling supply. Includes valve, faucet and fixture removal, repair and replacement in commercial properties. Prerequisite: MNT 125 with a grade of C or better.

MNT 228 Small Equipment Maintenance (1-2)
2 crs.
Trains students in small engine and equipment repair. Students will demonstrate the ability to repair small engines such as those found in lawn, garden, and construction equipment. Emphasis is placed on overhaul, repair, adjustment, and troubleshooting.

MNT 235 Maintenance Troubleshooting Skills (2-2) 3 crs.
Covers methods of system analysis using schematics, circuit diagrams and installation drawings. Develops troubleshooting diagnostics for control, electrical and mechanical systems based on problem reduction through fault tree analysis.
Prerequisite: MNT 111 with a grade of C or better.
MNT 255 Belts/Bearings and Mechanical Drives (1-2) 2 crs. Covers a practical knowledge of machine elements and power transmission with emphasis on belts, bearings and mechanical drive systems. Provides knowledge in system maintenance, lubrication and power efficiencies.
Prerequisite: MNT 235 with a grade of " C " or better.

## MNT 281 Topics in Maintenance Technology (1-0 to 6-3)

1-6 crs.
Examines selected problems or topics in Maintenance Technology. The specific course content and instructional methodology will vary each semester offered depending on the material presented. A syllabus containing specific topic information will be available in the division office with preregistration materials each time the course is offered. This course may be repeated up to a maximum of 6 credit hours.
Prerequisite: Consent of instructor.

## MOA Medical Office Administration

MOA 145 Health Care Records Management (1-2) 2 crs. Introduces types of patient-care records prepared and maintained by health care personnel. Includes elements of records, record keeping, medical records ethics and confidentiality, correction techniques and use of health care references, with transcription and computer applications. Electronic Medical Records (EMR) is introduced. Beginning transcription techniques including grammar, punctuation and proof-reading skills are emphasized. Basic keyboarding skills and knowledge of Microsoft Word are necessary for this course.
Prerequisite: ENG 101, HSC 104 and HSC 112 with grades of C or better.

MOA 150 Math Applications in Health Care (1-0)
1 cr.
Develops skill necessary to calculate medication dosages and solutions using the metric system. A basic math ability, including decimals, fractions and percentages, is necessary to be successful in this course.

MOA 195 Principles of Health Insurance Billing (2-2) 3 crs. Explores and compares major types of health insurance contracts and describes benefits and limitations. Provides practice in processing insurance claim forms (CMS-1500). Current Procedural Terminology (CPT) and International Classification of Disease (ICD) coding techniques are introduced. Emphasis is on insurance rules and regulations including Medicare and Medicaid, claim submission, reimbursement and collections.
Prerequisite: HSC 112 with a grade of C or better and prior or current enrollment in either BIO 135 or BIO 136 with a grade of C or better.

MOA 196 Current Procedural Terminology (CPT) Coding (2-2)

3 crs.
Introduces the student to the Current Procedural Terminology
(CPT) coding system for procedures used in ambulatory care and services rendered by physicians. Emphasis is on the six sections of the CPT Coding Manual, elements of coding techniques and guidelines. The CPT Coding Manual is used to code the procedures and services performed by physicians. Individual code numbers are assigned to identify all procedures and services. (Credit will be given for either HIT 196 or MOA 196, but not both.) Prerequisite: BIO 135, BIO 136 and HSC 112 with grades of $C$ or better. Prior or concurrent enrollment in MOA 195.

MOA 197 International Classification of Disease (ICD) Coding (2-2) 3 crs.
Introduces the student to the current International Classification of Diseases (ICD). ICD coding is designed for the classification of patient morbidity (sickness) and mortality (death) information for statistical purposes and for the indexing of hospital records by disease and operation for data storage and retrieval. Includes elements of coding techniques and guidelines, structured learning exercises and compute applications. (Credit will be given for either HIT 197 or MOA 197, but not both.)
Prerequisite: BIO 135, BIO 136 and HSC 112 with grades of C or better. Prior or concurrent enrollment in MOA 195.

MOA 198 Principles of ICD-10-cm Coding (2-2)
3 crs.
Prepares the student who is currently enrolled in the Health Insurance Billing Specialist Certificate or for the student who has already completed the certificate before ICD-9-CM was changed to ICD-10-CM. Incorporates the changes that have necessitated the move from ICD-9-CM to ICD-10-CM. Teaches how more precise documentation and an increased number of codes will help ensure more accuracy when reporting CPT services and procedures.
Prerequisite: BIO 135, BIO 136 and HSC 112 with grades of $C$ or better and prior or concurrent enrollment in MOA 195.
MOA 215 Clinical Procedures (4-8)
8 crs.
Offers basic and advanced clinical techniques in the physician's office or clinic. Includes diagnostic and laboratory testing techniques, principles of medications, and assisting the physician in specialty examinations and minor surgical procedures. Demonstration of clinical skills in outpatient care is emphasized, with maintenance of proper patient and technician protection guidelines. Includes a clinical rotation in a health care facility. NOTE: The program's health requirements and American Heart Association Cardiopulmonary Resuscitation (CPR) certificate must be completed prior to placement in clinical rotation.
Prerequisite: HSC 105, HSC 107, HSC 165, MOA 145 and MOA 150 with grades of $C$ or better.
MOA 235 Health Care Office Procedures (2-2) 3 crs.
Offers development of skills in medical front office procedures used in a health care facility. Emphasizes patient relations in health care by using office simulations including computer programs with introduction to electronic medical records. Strong emphasis on cultural diversity issues and application in the health care field.
Prerequisite: HSC 112 and MOA 145 with grades of C or better.
MOA 240 Medical Transcription I (2-2) 3 crs.
Develops speed and accuracy in transcribing a variety of basic medical reports, using a transcriber and computer. Enhances student's knowledge of health care reports and terminology. Emphasis is on basic transcription techniques and guidelines. Prerequisite: BIO 135, HSC 104, HSC 112 and MOA 145 with grades of $C$ or better.
MOA 242 Medical Transcription II (2-2) 3 crs.
Offers speed and accuracy development in transcribing various health care reports and familiarizes student with the report formats. Extensive use of transcriber and computer. Progresses to advanced, specialized hospital dictation. Emphasis is on advanced transcription techniques and guidelines. Course is designed for students intending to enter the medical transcription profession.
Prerequisite: MOA 240 with a grade of C or better.
MOA 245 Health Care Office Management (3-0)
Introduces the qualities of a health care office supervisor necessary to effectively manage the physician's office, clinic or other health care facility. Includes human relations skills, personnel recruitment, coordinating and supervising office personnel, office facilities, the office policy manual, records management, patient education and time management. Class focuses on teaching the student how to be a supervisor but also how to work with and interact with their own supervisor(s).
Prerequisite: MOA 215 or MOA 235 with grades of $C$ or better.
MOA 265 Medical Office Administration Externship
(1-10)
3 crs.
Provides 160 hours during the semester of supervised experience in a health care office/facility to enhance the student's administrative technical skills. A project can be substituted for students unable to do an on-site externship. NOTE: The program's health requirements must be completed prior to placement in on-site externship.
Prerequisite: MOA 235 or MOA 240 with a grade of C or better.

MOA 280 Medical Assistant Externship (1-10)
3 crs.
Provides 208 hours during the semester of supervised experience in a health care facility to enhance the student's administrative technical skills. One-hour seminars throughout the semester devoted to externship issues. NOTE: The program's health requirements and American Heart Association Cardiopulmonary Resuscitation (CPR) certificate must be completed prior to placement in externship.
Prerequisite: Prior or concurrent enrollment in MOA 215 with a grade of $C$ or better.

## MOA 299 Medical Office Capstone (3-0) <br> 3 crs.

Applies and integrates skills from within Medical Office Administration courses within the AAS degree program. Discusses medical office management issues and methodologies and puts them into practice. Preparation of practice management file including policies and procedures and personnel files.
Prerequisite: MGT 111 and MGT 270 with grades of $C$ or better. Prior or concurrent enrollment in MOA 235 with a grade of C or better.

## MTH Mathematics

MTH 051 Arithmetic of Whole Numbers (0-2) 1 cr.
Covers reading and writing whole number and whole number operations. Students will learn whole number operations of addition, subtraction, multiplication and division without the use of a calculator. Estimation is introduced as an aid to computation as well as place value and problem solving techniques with applications. Course material will be individualized. Carries no transfer credit.
Prerequisite: Math placement test.
MTH 052 Arithmetic of Fractions and Decimals (0-2) 1 cr. Covers the operations associated with addition, subtraction, multiplication, and division of common fractions, mixed numbers and decimals. Includes work with word problem applications. Course material will be individualized. Carries no transfer credit. Prerequisite: MTH 051 with a grade of $C$ or better or required math placement test score.

## MTH 053 Arithmetic of Ratio, Proportion, Percent and

 Measurement (0-2)1 cr.
Covers operations of ratio and proportion, percent, and measurement, including both English and metric systems and conversions between them. Includes estimation and word problem applications. Course material will be individualized. Carries no transfer credit.
Prerequisite: MTH 052 with a grade of C or better or required math placement test score.

MTH 054 Graphs, Geometry and Signed Numbers (0-2) 1 cr. Covers graph interpretation, geometric measurement, and introduction to the arithmetic of signed and rational numbers. Rational numbers includes work with word problem applications. Course materials will be individualized. Carries no transfer credit. Prerequisite: MTH 053 with a grade of C or better or required math placement test score.

MTH 055 Basic Mathematics (3-0)
3 crs.
Covers the arithmetic of fractions, decimals, ratio, proportion, percent, measurement, and rational numbers. Includes estimation, applications, and graph interpretation. This course includes content of MTH 052, MTH 053 and MTH 054 and is offered as a lecture course or in the Math Lab as a lab course. Carries no transfer credit.
Prerequisite: MTH 051 with a grade of $C$ or better or required math placement test score.

MTH 060 Beginning Algebra (4-0) 4 crs.
Introduces basic concepts of algebra including real numbers, variables and algebraic expressions, equations, inequalities, ratios and proportions, Cartesian coordinate system and graphs of relations. Emphasizes mathematical reasoning and problem solving utilizing multiple approaches (algebraic, geometric, and numeric techniques) with focus on mathematical definitions, theorems, symbols, and notation. Carries no transfer credit.
Prerequisite: MTH 054 or MTH 055 with a grade of C or better or required math placement test score.

MTH 061 Elementary Algebra I (1-0) 1 cr.
Introduces basic algebraic vocabulary, operations with signed numbers, linear equations, word problems, ratios and proportions. Course is individualized and is offered in the Math Lab. Carries no transfer credit.
Prerequisite: MTH 054 or MTH 055 with a grade of C or better or required math placement test score.

MTH 062 Elementary Algebra II (1-0) 1 cr.
Continues MTH 061 and covers linear inequalities, rectangular coordinates, linear equations in two variables, graphing equations, word problems, exponents and scientific notation, adding, subtracting and multiplying polynomials. Course is individualized and offered in the Math Lab. Calculator may be used. Carries no transfer credit.
Prerequisite: MTH 061 with a grade of C or better.
MTH 063 Elementary Algebra III (1-0) 1 cr. Continues MTH 062 and covers multiplying, dividing and factoring polynomials, quadratic equations and word problems involving quadratic equations, multiplication, division, addition and subtraction of rational expressions. A calculator may be used. Course is individualized and offered in the Math Lab. Carries no transfer credit.
Prerequisite: MTH 062 with a grade of C or better.
MTH 067 Foundations of Mathematics 1A (1-2) 2 crs. Introduces basic concepts of algebra including real numbers, variables and algebraic expressions, equations, ratios and proportions, Cartesian coordinate system and graphs of lines. Emphasizes mathematical reasoning and problem solving utilizing multiple approaches (algebraic, geometric, and numeric techniques) with focus on mathematical definitions, theorems, symbols, and notation. Carries no transfer credit.
Prerequisite: MTH 054 or MTH 055 with a grade of C or better, or required math placement test score.

MTH 068 Foundations of Mathematics 1B (1-2) 2 crs. Continues the basic concepts of algebra including real numbers, variables, algebraic expressions, equations, Cartesian coordinate system and graphs of relations and introduces inequalities and solving inequalities. Emphasizes mathematical reasoning and problem solving utilizing multiple approaches (algebraic, geometric, and numeric techniques) with focus on mathematical definitions, theorems, symbols, and notation. Carries no transfer credit.
Prerequisite: MTH 067 with a grade of C or better.
MTH 070 Plane Geometry (3-0) 3 crs.
Introduces concepts of Euclidean plane geometry, including lines, angles, polygons and circles. Carries no transfer credit.
Prerequisite: MTH 060 or MTH 068 or MTH 082 with a grade of C or better, or required math placement test score.

MTH 075 Review of Developmental Algebra and Geometry (0-2)
Reviews the topics of elementary and intermediate algebra and geometry as needed with the goal of improving the student's mathematics placement scores. Carries no transfer credit. Prerequisite: Required math placement test score or consent of the department chair.

MTH 080 Intermediate Algebra (4-0) 4 crs.
Continues MTH 060 and introduces fundamental concepts of algebra including rational expressions, complex numbers, and functions that are polynomial, rational, exponential or logarithmic. Emphasizes mathematical reasoning and problem solving utilizing multiple approaches (algebraic, geometric, and numeric techniques) with focus on mathematical definitions, theorems, symbols, and notations. Credits earned in this course cannot be applied toward an Associate in Arts or Associate in Science degree. Carries no transfer credit.
Prerequisite: MTH 060, MTH 063 or MTH 068 with grades of C or better or required math placement test score.

## MTH 082 Data Modeling With Algebra (5-0) <br> 5 crs.

Develops beginning and intermediate algebra skills with an emphasis on data modeling and statistical concepts throughout the course. Introduces basic algebraic concepts such as number sets, arithmetic operations, algebraic expressions, equations and inequalities, ratios and proportions, the Cartesian coordinate system, graphs of relations, functions and their graphs including polynomial, exponential, and logarithmic functions. Credits earned in this course cannot be applied toward an Associate in Arts or Associate in Science degree. Carries no transfer credit.
Prerequisite: MTH 054 or MTH 055 with a grade of C or better, or required math placement test score.
MTH 097 Basic Technical Mathematics (3-0) 3 crs. Reviews arithmetic, introduces basic algebraic and right triangle trigonometric techniques. Includes arithmetic, elementary algebra, geometry, ratio and proportions, measurements, right triangle trigonometry and their application to solve a variety of career and technical problems. Draws practical problems the student's career area, including emergency services, graphic communications, building trades, culinary arts and information technology. Intended for students pursuing Harper degrees and certificates in career program fields. This course: is not transferable, does not satisfy the prerequisite for any other mathematics course, and does not satisfy any general education requirements.

## MTH 101 Quantitative Literacy (4-0)

4 crs.
Develops conceptual understanding, problem-solving, decisionmaking and analytic skills dealing with quantities and their magnitudes and interrelationships, using calculators and personal computers as tools. Includes: computing statistical measures such as central tendency and dispersion; computing correlation coefficients and regression equations; using normal distributions to test hypotheses; using logical statements and arguments in a real-world context; solving systems of equations and inequalities and modeling data; solving mathematical finance problems; and selecting and using appropriate approaches and tools in formulating and solving real-world problems. IAI M1 901 Prerequisite: MTH 070 (or equivalent) with a grade of $C$ or better or Geometry placement test score, AND MTH 080 or MTH 082 with a grade of C or better; or required math placement test score. An ACT Math score of 23 or more will satisfy all the previous prerequisites mentioned for this course.

## MTH 103 College Algebra (3-0) <br> 3 crs.

Emphasizes algebraic and graphical approaches to college algebra. Topics include but are not limited to: polynomial, rational, exponential, and logarithmic functions; systems of equations and inequalities; matrices; and mathematical modeling. NOTE: This course does not fulfill the math requirement for the AA or AS degrees.
Prerequisite: MTH 070 (or equivalent) with a grade of C or better or Geometry placement test score AND MTH 080 with a grade of C or better, or required math placement test score. An ACT Math score of 23 or more will satisfy all the previous prerequisites mentioned for this course.

MTH 124 Finite Mathematics (3-0)
3 crs.
Develops the mathematics of simple models in behavioral, social and management sciences. Studies applications of set theory, vectors and matrices, linear programming, probability rules, and Markov chains with computer assistance. IAI MI 906
Prerequisite: MTH 070 (or equivalent) with a grade of $C$ or better or Geometry placement test score AND MTH 103 with a grade of $C$ or better, or required math placement test score. An ACT Math score of 28 or more will satisfy all previous prerequisites mentioned for this course.

MTH 130 Mathematics for Elementary Teaching I (3-2) 4 crs. Focuses on mathematical reasoning and problem solving and is designed to meet the requirements of the state certification of elementary teachers when taken in conjunction with MTH 131. The course examines the underlying conceptual framework of the topics of sets, functions, whole numbers, number theory, integers, rational numbers, irrational numbers and the real number system. Students are expected to be active participants in the learning process. They will apply mathematical reasoning in a variety of problem-solving situations using estimation, models, tables, graphs and symbolic representations. The use of appropriate techniques and tools, such as calculators and computers, are a focus of investigations and discussion throughout the course. A weekly lab component is required.
Prerequisite: MTH 070 (or equivalent) with a grade of $C$ or better or Geometry placement test and MTH 080 with a grade of C or better, or math placement test. An ACT Math score of 23 or more will satisfy all the previous prerequisites mentioned for this course.

MTH 131 Mathematics for Elementary Teaching II (3-2) 4 crs. Completes the two course sequence that begins with MTH 130 and focuses on mathematical reasoning and the solving of reallife problems, rather than on routine skills. The following topics will be studied in depth: geometry, counting techniques and probability, logic and statistics. Students are expected to be active participants in the learning process. Calculators and computers will be used throughout the course. A weekly lab component is required. IAI MI 903
Prerequisite: MTH 130 with a grade of C or better.
MTH 134 Calculus for Social Scientists (4-0) 4 crs.
Develops an intuitive approach to concepts of differential and integral calculus. Applies these concepts to problems in social, behavioral and management sciences. Not for physical science or mathematics majors. IAI M1 900
Prerequisite: MTH 070 (or equivalent) with a grade of $C$ or better or Geometry placement test score AND MTH 103 with a grade of $C$ or better, or required math placement test score. An ACT Math score of 28 or more will satisfy all the previous prerequisites mentioned for this course.

MTH 140 Precalculus (5-0)
Builds on MTH 103 to provide the foundation in calculus and analytic geometry. Topics include but are not limited to: polynomial and rational functions and inequalities, analytic geometry, trigonometric functions, inverse functions, applications of trigonometric functions, polar coordinates and vectors, the complex plane and relationships among exponential, logarithmic, and trigonometric functions.
Prerequisite: MTH 070 (or equivalent) with a grade of C or better or Geometry placement test score AND MTH 103 with a grade of $C$ or better, or required math placement test score. An ACT Math score of 28 or more will satisfy all the previous prerequisites mentioned for this course.

MTH 162 General Education Statistics (4-0)
4 crs.
Extends the concepts of descriptive statistics presented in MTH 082. Investigates basic probability theory (sample spaces, mutually exclusive and independent events, conditional probability), probability distributions (normal distributions, binomial distributions, sampling distributions), inferential methods (point and interval estimation, hypothesis testing, $t$-tests, chi-square tests, ANOVA). Focuses on mathematical reasoning and the solving of real-life problems, rather than on routine skills and formulas. Emphasizes the interpretation and communication of results. Credit will be given for MTH 162 or MGT 225 or MTH 165, but not for any two of these courses. IAI M1 902
Prerequisite: MTH 070 (or equivalent) with a grade of C or better or Geometry placement test AND MTH 082 with a grade of C or better.

MTH 165 Elementary Statistics (4-0)
4 crs.
Focuses on mathematical reasoning and the solving of reallife problems in statistics, rather than on routine skills. Includes analysis of data using sample statistics, basic probability theory, probability distributions (normal and binomial), sampling distributions of means and proportions, statistical inference (estimation, hypothesis testing, t-test and chi-square test, and errors), correlation and regression, F-test and analysis of variance. Computer labs using statistical software packages are incorporated throughout course. (Credit will be given for either MTH 162 or MTH 165 or MGT 225, but not all.) IAI M1 902 Prerequisite: MTH 070 (or equivalent) with a grade of C or better or Geometry placement test score AND MTH 080 with a grade of C or better, or required math placement test score. An ACT Math score of 23 or more will satisfy all the previous prerequisites mentioned for this course.

MTH 200 Calculus With Analytic Geometry I (5-0)
5 crs.
Studies limits, the derivative and the definite integral with applications to geometry, science and engineering. IAI M1 900-1, IAI MTH 901
Prerequisite: MTH 070 (or equivalent) with a grade of $C$ or better or Geometry placement test score AND MTH 140 with a grade of C or better, or required math placement test score, or consent of mathematics department chair. An ACT Math score of 28 or more and a trigonometry course with a grade of $C$ or better will satisfy all the previous prerequisites mentioned for this course.

MTH 201 Calculus With Analytic Geometry II (5-0) 5 crs. Continues MTH 200. Studies differentiation of transcendental functions, techniques of integration, series, conics, polar coordinates and parametric equations with applications to science and engineering. IAI M1 900-2, IAI MTH 902
Prerequisite: MTH 200 with a grade of C or better.
MTH 202 Calculus With Analytic Geometry III (5-0) 5 crs. Continues MTH 201. Studies three-dimensional vectors, solid analytic geometry, vector-valued functions, partial derivatives, multiple integrals, Green's theorem, surface integrals, divergence theorem and Stoke's theorem. IAI M1 900-3, IAI MTH 903
Prerequisite: MTH 201 with a grade of C or better.
MTH 203 Linear Algebra (4-0) 4 crs
Introduces matrices, vector spaces and linear transformations. Serves as a first exposure to abstract mathematical structures. Include matrices and their operations, determinants, solutions of systems of linear equations, Euclidean and general vector spaces, bases and dimension, linear transformations and their associated subspaces, eigenvalues and eigenvectors. Discusses applications to mathematics, computer graphics, and physical sciences. IAI MTH 911
Prerequisite: MTH 201 with a grade of C or better.

MTH 212 Differential Equations (3-0)
3 crs.
Continues MTH 202. Emphasizes solutions of first order differential equations, linear differential equations, special second order equations and series solutions. Studies selections from these topics: LaPlace transforms, Fourier series, numerical methods and applications of matrix algebra. IAI MTH 912
Prerequisite: MTH 202 with a grade of C or better.
MTH 220 Discrete Mathematics (3-0)
3 crs.
Introduces analysis of finite collections and mathematical foundations of sequential machines, computer system design, data structures and algorithms. Includes sets and logic, subscripts, arrays, number systems, counting, recursion, graph theory, trees, networks and Boolean algebra. IAI M1 905, IAI CS 915
Prerequisite: MTH 070 (or equivalent) with a grade of C or better or Geometry placement test score AND MTH 103 with a grade of $C$ or better, or required math placement test score. An ACT Math score of 28 or more will satisfy all the previous prerequisites mentioned for this course.

MTH 265 Mathematical Statistics (3-0)
3 crs.
Includes the study of probability spaces, random variables and distributions, laws of large numbers and central limit theorem, joint probability distributions, sampling distributions, theory of estimation, simple linear regression and introduction to SPSS. Prerequisite: MTH 202 with a grade of C or better.

## MUS Music

MUS 100 Introduction to Music Careers (1-0) 1 cr.
Explores issues relating to the successful pursuit of a career in music. Recommended for anyone pursuing a professional music career.

MUS 101 Fundamentals of Music Theory (3-0) 3 crs.
Provides the background to interpret and understand the
language of music through the study of notation, rhythm, scales, intervals, triads, cadences, basic forms and musical terms. Students are prepared for the study of harmony and for practical musical activity. Suitable for pre-teachers and non-music majors.

## MUS 102 Introduction to Electronic/Computer Music

(3-1)
3 crs.
Introduces basic computer applications in music. Explores electronic music technology, MIDI instruments, sequencing, music notation and educational software.

MUS 103 Music Appreciation (3-0)
3 crs.
Introduces standard concert repertory through intensive guided listening. Representative works by major composers from each period are chosen to illustrate the principal styles, forms and techniques of vocal and instrumental music. IAI F1 900

MUS 104 Introduction to American Music (3-0) 3 crs.
Develops a stylistic frame of reference for judging popular music. Surveys characteristic elements of jazz, rhythm and blues, popular music and their relation to western classical music. For non-music majors. IAI F1 904

MUS 106 Introduction to Jazz (3-0)
3 crs.
Examines the evolution and development of jazz, America's only native musical art form. The study begins in 1851 with the blending of African, European, Haitian, and Creole music and culture in New Orleans, which results in the creation of blues and improvisation. The study continues with further development in Chicago, Kansas City, New York, and Los Angeles. The course introduces blues, Dixieland, big band, cool, hard bop, funk, free, and fusion.

MUS 107 Introduction to Music in Theatre (3-0) 3 crs.
Surveys characteristic elements of music in the theatre. Includes opera, operetta and Broadway musicals. Examines them as media for communicating the philosophic, aesthetic and psychological perspectives of composers and their eras. Music experience not required.

MUS 111 Theory of Music I (3-1) 3 crs.
Begins an intensive study of the structure of music of the Common Practice period. Examines, through analysis and composition, the musical practice of the late 17th and early 18th centuries.
Corequisite: MUS 115.
MUS 112 Theory of Music II (3-1)
3 crs.
Continues the study of the structure of music of the Common
Practice period. Examines, through analysis and composition, the musical practice of the middle to late 18th and early 19th centuries, paying particular attention to harmonic language and its effect upon musical form.
Prerequisite: MUS 111 with a grade of C or better.
Corequisite: MUS 116.
MUS 115 Aural Skills I (0-2)
1 cr.
Develops skills in melodic, harmonic and rhythmic dictation and sight singing. IAI MUS 901
Corequisite: MUS 111.
MUS 116 Aural Skills II (0-2) 1 cr.
Develops skills in melodic, harmonic and rhythmic dictation and sight singing. IAI MUS 902
Corequisite: MUS 112.
MUS 120 Introduction to Music Literature (3-0) 3 crs. Surveys the styles, periods, literature and personalities in each of the commonly accepted music periods, with primary emphasis on hearing music of each style. IAI F1 901

MUS 130 Choir (0-3)
Provides mixed voice choral experience for singers of average or above average ability. Stresses fundamentals of good choral diction and tone through choral works of various styles and types. May be repeated up to a maximum of four credit hours. IAI MUS 908
Prerequisite: Consent of instructor.
MUS 136 Community Chorus (0-3)
1 cr.
Provides a variety of choral experiences including larger choral works such as oratorios and cantatas, and selections from grand opera, comic opera and musical comedy. May be repeated up to a maximum of four credit hours. IAI MUS 908

## MUS 140 Band (0-3)

1 cr.
Provides students proficient in playing band instruments the opportunity to perform music of various styles and types. Stresses sight reading and musicianship. Develops skills, musical understanding and enjoyment. May be repeated up to a maximum of four credit hours. IAI MUS 908
Prerequisite: Consent of instructor.
MUS 145 Ensembles (0-3)
1 cr.
Provides students with proficiency on an instrument or in voice the opportunity to perform in various vocal and instrumental chamber music ensembles. Stresses sight reading and musicianship. Develops skills, musical understanding and enjoyment. May be repeated up to a maximum of four credit hours.
Prerequisite: Consent of instructor.
MUS 150 Orchestra (0-3)
Provides students proficient in playing orchestral instruments the opportunity to perform music of various styles and types. Stresses sight reading and musicianship. Develops skills, musical understanding and enjoyment. May be repeated up to a maximum of four credit hours.
Prerequisite: Consent of instructor.

MUS 165 Class Piano I (1-2)
2 crs.
Develops a rudimentary knowledge of the keyboard and playing skills sufficient to cope with simple, practical situations. Emphasis on tonal notation, harmonization, transposition, sight reading, improvisation, ensemble playing and basic piano literature.

MUS 166 Class Piano II (1-2)
2 crs.
Continues MUS 165.
Prerequisite: MUS 165 with a grade of C or better or proficiency examination.

## MUS 167 Class Guitar (1-2)

2 crs.
Provides instruction for students who wish to play the guitar. Designed for the student with little or no traditional music background, the course relates basic music theory concepts to guitar styles. Develops basic performance skills.

MUS 169 Class Voice (1-2)
2 crs
Introduces correct use of the singing voice. Emphasizes proper breathing and tone production, accurate intonation and diction and the fundamentals of music reading.

MUS 180 Flute and Piccolo (0.5-6) 1 cr . Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.
MUS 181 Oboe and English Horn (0.5-6)
1 cr.
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 182 Clarinets (0.5-6)
1 cr.
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 183 Bassoons and Contra Basso (0.5-6) $1 \mathbf{c r}$
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 184 Saxophones (0.5-6)
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 185 French Horn (0.5-6)
1 cr.
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

## MUS 186 Trumpet (0.5-6)

1 cr.
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

## MUS 187 Trombone (0.5-6)

1 cr.
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 188 Baritone (0.5-6)
1 cr.
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 189 Tuba (0.5-6)
1 cr.
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

## MUS 190 Percussion (0.5-6)

1 cr .
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 191 Violin (0.5-6)
1 cr.
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 192 Viola (0.5-6)
1 cr.
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 193 Cello (0.5-6) 1 cr.
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 194 String Bass (0.5-6) 1 cr.
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 195 Harp (0.5-6) 1 cr
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 196 Piano (0.5-6)
1 cr.
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 197 Organ (0.5-6)
1 cr.
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 198 Voice (0.5-6)
1 cr .
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 199 Classical Guitar (0.5-6)
Provides instruction for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. Students are urged to participate in repertoire classes and music convocations. May be repeated up to a maximum of four credit hours. Does not meet the requirements of the Associate of Fine Arts degree.

MUS 211 Theory of Music III (3-1)
3 crs.
Completes the study of the structure of music of the Common
Practice period and begins the study of subsequent periods. Examines, through analysis and composition, the musical practice of the 19th and early 20th centuries.
Prerequisite: MUS 112 with a grade of C or better.
Corequisite: MUS 215.

MUS 212 Theory of Music IV (3-1)
3 crs.
Completes the study of the structure of classical and avant-garde music in the 20th century. Explores the structure of tonal music from a linear perspective.
Prerequisite: MUS 211 with a grade of C or better.
Corequisite: MUS 216.
MUS 215 Aural Skills III (0-2) 1 cr.
Develops skills in melodic, harmonic and rhythmic dictation and sight singing.
Corequisite: MUS 211.
MUS 216 Aural Skills IV (0-2) 1 cr.
Develops skills in melodic, harmonic and rhythmic dictation and sight singing.
Corequisite: MUS 212.
MUS 223 Instrumental Literature (3-0) 3 crs. Surveys the music literature available for performance by musical instruments, excluding keyboard instruments and voice.

MUS 224 Keyboard and Vocal Literature (3-0) 3 crs. Surveys music literature available for performance by keyboard and voice, including opera.

MUS 265 Class Piano III (1-2)
2 crs.
Continues MUS 166. Greater emphasis on keyboard harmony, ensemble playing and jazz improvisation.
Prerequisite: MUS 166 with a grade of C or better or proficiency examination.

MUS 266 Class Piano IV (1-2)
2 crs.
Continues MUS 265.
Prerequisite: MUS 265 with a grade of C or better or proficiency examination.

MUS 271 Piano Pedagogy I (3-0) 3 crs. Surveys the basic teaching philosophies, methods, materials and skills needed to teach the beginning piano student. Observation of individual and group instruction.
Prerequisite: MUS 265 with a grade of C or better, or consent of instructor.

## MUS 272 Piano Pedagogy II (2-2) <br> 3 crs.

Continues development of skills begun in MUS 271. Emphasis will be placed on methods and materials for teaching the intermediate piano student. Lab includes supervised student teaching to aid in individual development.
Prerequisite: MUS 271 with a grade of C or better.
MUS 280 Flute and Piccolo (1-12)
2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 281 Oboe and English Horn (1-12)
2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 282 Clarinets (1-12)
2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 283 Bassoons and Contra Basso (1-12) 2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 284 Saxophones (1-12) 2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 285 French Horn (1-12) 2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 286 Trumpet (1-12) 2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 287 Trombone (1-12) 2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 288 Baritone (1-12) 2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 289 Tuba (1-12) 2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 290 Percussion (1-12) 2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 291 Violin (1-12) 2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 292 Viola (1-12)
2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 293 Cello (1-12)
2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 294 String Bass (1-12)
2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 295 Harp (1-12) 2 crs. Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

## MUS 296 Piano (1-12)

2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.
MUS 297 Organ (1-12)
2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 298 Voice (1-12)
2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

MUS 299 Classical Guitar (1-12) 2 crs.
Provides instruction for music majors. One hour lesson per week. Minimum of 12 hours of practice per week. Jury examination and performance at repertoire classes and music convocations required. May be repeated up to a maximum of eight credit hours. Prerequisite: Successful audition.

## NET Networking

## NET 100 Windows Fundamentals (0.5-1)

Introduces the student to the use of a graphical interface for the Windows operating system. Includes the use of the graphical interface and some of the built-in desktop and system accessories.

## NET 101 Windows (2-2)

Introduces a student to the use of a graphical interface for the operating system. Includes the use of the graphical interface, built-in desktop accessories, and built-in system accessories. Covers several features of application packages when used in a Windows environment, networking considerations, and switching between applications. Provides students with an introduction to the command-line environment, command-line file management, directory management, disk management, and the use of wildcards and options. Also introduces batch file concepts.

NET 105 Introduction to Operating Systems (2-2) 3 crs. Provides students with a hands-on introduction to operating systems and related concepts. Includes hardware, software, file systems, directory structures, files and attributes, text editors, applications, and maintenance. Compares and contrasts GUI and command line interfaces in a variety of current operating systems.

NET 106 Introduction to Linux (2-2)
3 crs.
Provides students with knowledge and hands-on experience in installing Linux, using the command line to manage a personal Linux workstation, and using a Graphical User Interface when appropriate. Students learn to manage files and file permissions, use the vim editor, and are introduced to operating system concepts such as file systems, pipes, filters, redirection, and processes.

## NET 111 A+ Hardware (2-2)

3 crs.
Provides students with experience installing, configuring, maintaining, upgrading, diagnosing, troubleshooting, and networking recent and current personal computer hardware. Recommended preparation: CAS 160, CIS 101, NET 105 or equivalent experience.

NET 112 A+ Operating Systems Technologies (2-2)
Provides students with experience installing, configuring, upgrading, diagnosing, troubleshooting, and networking recent and current personal computer operating systems. Recommended preparation: CAS 160, CIS 101,NET 105 or equivalent experience.

NET 121 Introduction to Networking (2-2)
Provides students with a comprehensive introduction to local area networks. Includes the OSI model, media, topologies, protocols, network maintenance, upgrades, troubleshooting, and current network operating systems.
Prerequisite: NET 105, NET 111, or NET 112 with a grade of C or better.

## NET 122 Internet Protocols (2-2)

Provides students with a detailed examination of Internet addressing and protocols. Includes IP addressing, routing, IP, ICMP, ARP, TCP, UDP, DHCP, DNS, HTTP, FTP, and SMTP. Uses protocol analyzers to monitor and examine network traffic. Prerequisite: Prior or concurrent enrollment in NET 121 with a grade of $C$ or better.

NET 182 Computer Forensics (2-2)
3 crs.
Provides students with a comprehensive introduction to computer forensics: the preservation, identification, extraction, documentation and interpretation of computer data. Topics include computer forensics tools, file systems and disk structures, information analysis, and proper incident response techniques.
Prerequisite: NET 111, NET 112, NET 121, and NET 122 with grades of C or better.

## NET 201 Help Desk/Soft Skills (2-2) 3 crs.

Introduces and provides practice in the business, team, communication, and self-management skills needed to provide excellent technical support for computer users.
Prerequisite: NET 111 and NET 112 with grades of C or better.
NET 221 Wireless Networking (2-2)
Provides students with a comprehensive hands-on overview of wireless networking. Includes radio frequencies, wireless infrastructure, hardware, wireless standards, wireless LAN security, site surveys, and troubleshooting. Recommended preparation: NET 121 or equivalent experience.
None:
NET 222 Communications Technologies (2-2)
Provides students with an introduction to communications technologies, telecommunications, and data convergence Topics include telephony, network engineering, communications applications, hardware, architecture, management and security. Recommended preparation: NET 122 or equivalent experience.

NET 223 Information Storage and Management (2-2) 3 crs. Provides students with an introduction to information storage and management concepts. Includes storage systems, storage networking technologies and virtualization, business continuity, and storage security and management. Recommended preparation: NET 122 or equivalent experience.

## NET 231 Windows Scripting (2-2)

3 crs.
Provides students with hands-on experience scripting the Windows environment. Topics include Windows Script Host, VBScript, variables and arrays, conditional logic, procedures, file and data access, error handling, and registry settings. A variety of administrative scripts are created throughout the course.
Prerequisite: CAS 160 with a grade of C or better AND math placement in MTH 101 or higher.

NET 236 Linux Shell Scripting (2-2)
3 crs.
Provides students with in-depth knowledge of basic and advanced topics, and the hands-on experience needed to master Shell Programming. Recommended preparation: NET 141 or equivalent experience.

NET 240 Linux Fundamentals (2-2)
3 crs.
Provides students with a comprehensive introduction to Linux administration. Includes architecture, installation, commands, file systems, data management, user interfaces, administrative tasks, system services, networking, and security.
Prerequisite: NET 111, NET 112, NET 121 and NET 122 with grades of $C$ or better.

NET 260 Windows Server Administration (2-2) 3 crs. Provides students with a comprehensive introduction to Windows Server administration. Includes installation, server roles, Active Directory, storage, performance, and maintenance.
Prerequisite: NET 111, NET 112, NET 121 and NET 122 with grades of $C$ or better.

NET 270 Cisco Networking (CCNA) (2-2)
3 crs.
Provides students with experience configuring Cisco routers and switches for a variety of tasks, including IOS basics, router configuration, routing protocols, NAT, access lists, WAN settings, switching and VLANs.
Prerequisite: NET 111, NET 112, NET 121 and NET 122 with grades of C or better.

NET 280 Network Security Fundamentals (2-2) 3 crs.
Provides students with a comprehensive hands-on overview of network security, including authentication, encryption, digital certificates, perimeter topologies, remote access, cryptography, and operational security.
Prerequisite: NET 111, NET 112, NET 121 and NET 122 with grades of C or better.

## NET 299 Networking Capstone (1-4)

3 crs.
Provides students with network implementation and troubleshooting skills. Based upon real-life conditions, students will establish a corporate networking environment. The network will then be configured in various states of dysfunction, providing opportunity for students to identify problems and provide proper corrections and adjustments to make the network function properly again.
Prerequisite: Prior or concurrent enrollment in NET 231 or NET 236 and NET 270 and NET 280 with grades of C or better.

## NUR Nursing

NUR 101 PN Fundamentals (4-9)
7 crs.
Introduces concepts as related to the practical nurse's role as a member of the discipline of nursing and a provider of care. Emphasizes the Neuman Systems Model, the nursing process, essential components of therapeutic communication, basic skills, and legal and ethical professional issues for the delivery of safe and competent care for diverse patients through lifespan. Provides theory and practice in assisting clients to meet basic needs.
Prerequisite: Admission into the Practical Nursing certificate program and BIO 160 and PSY 101 with grades of C or better. Corequisite: NUR 105.

NUR 102 Medical Surgical Nursing for the PN (2-6) 4 crs Focuses on the use of the nursing process to meet the needs of young adults and older adults by utilizing concepts from the Neuman Systems Model. Emphasis on the normal physiologic and psychosocial aspects of basic care needs as well as the common diseases specific to each client population. Selected clinical experiences in the acute care and clinic settings, where practical nurses can be employed.
Prerequisite: BIO 161, NUR 101 and NUR 105 with grades of C or better.
Corequisite: NUR 108.
NUR 104 PN Field Experience (1-6) 3 crs.
Utilizes the nursing process and the Neuman Systems Model to provide care for clients with commonly occurring problems causing health interferences. Provides opportunity for supervised experience as a member of the nursing care team in health care settings, assuming the role and responsibilities of the practical nurse.
Prerequisite: NUR 102, NUR 105, NUR 106, NUR 107 and NUR 108 with grades of $C$ or better.

NUR 105 PN Pharmacology (0.5-1.5)
Introduces pharmacology as needed for safe medication administration for the practical nurse. Discusses the mechanism of action of the major medication groups and the pharmacological activity within each group. Addresses areas of drug action, clinical application, adverse events and nursing implications for safe medication administration and assessment of medication effects. Lab will address safe medication administration.
Prerequisite: Admission into the Practical Nursing certificate program and BIO 160 and PSY 101 with grades of C or better. Corequisite: NUR 101.

NUR 106 Child Bearing for the PN (1-1.5)
2 crs.
Focuses on the use of the nursing process to meet the needs of childbearing women by utilizing concepts from the Neuman Systems Model. Emphasis on the normal physiologic and psychosocial aspects of basic care needs as well as the common diseases specific to the childbearing woman. Selected clinical experiences in the acute care and clinic settings, where practical nurses can be employed.
Prerequisite: BIO 161, NUR 101, NUR 102 and NUR 105 with grades of $C$ or better.
Corequisite: NUR 107 and NUR 108.
NUR 107 Pediatrics for the PN (1-3)
2 crs.
Focuses on the use of the nursing process to meet the needs of children and infants by utilizing concepts from the Neuman Systems Model. Emphasis on the normal physiologic and psychosocial aspects of basic care needs as well as the common diseases specific to infants and children. Selected clinical experiences in the acute care, community and clinic settings are provided where practical nurses can be employed.
Prerequisite: BIO 161, NUR 101, NUR 102 and NUR 105 with grades of $C$ or better.
Corequisite: NUR 106 and NUR 108.

NUR 108 PN Mental Health Nursing (1-0) 1 cr .
Utilizes the Neuman Systems Model and the nursing process to provide client-centered nursing care for clients experiencing psychosocial issues/mental health disorders. Emphasizes health promotion concepts in the care of clients across the life cycle and the continuum of mental health care. Addresses various treatment modalities and interventions including those applicable to community based care and long term care.
Prerequisite: NUR 101 and NUR 105 with grades of C or better. Corequisite: NUR 102.

NUR 110 Nursing Concepts and Practice (2-0) 2 crs. Establishes a firm basis on which to build subsequent nursing courses. Examines the essential concepts and core values of the nursing profession including health and wellness, safety, caring, critical thinking, ethics, the nursing process, and standards of practice. The Neuman Systems Model is the framework for the study of client care.
Prerequisite: Admission into the Nursing degree program and BIO 161, ENG 101 and PSY 101 with grades of C or better. Corequisite: NUR 180.
NUR 111 Introduction to Nursing Roles (2-0) 2 crs. Introduces the student to the professional roles and relationships of the registered nurse utilizing the Neuman Systems Model, the nursing process, and essential components of professional communication for the delivery of safe and competent care for the adult and aging client.
Prerequisite: NUR 110 with a grade of C or better.
Corequisite: NUR 180.
NUR 112 Nursing Roles Clinical (0-6)
2 crs.
Provides the student with the opportunity to practice and apply basic knowledge and skills to the provision of client care in the laboratory and clinical setting. Students will apply critical thinking, professional communication and the Neuman Systems Model when providing care to clients in the acute care setting. Prerequisite: NUR 110 with a grade of C or better.
Corequisite: NUR 111 and NUR 180.
NUR 140 Adult Health Concepts I (2-0) 2 cr
Develops essential medical and surgical knowledge and skills needed to provide nursing care to clients with respiratory, cardiac, gastrointestinal, metabolic and endocrine dysfunctions throughout the adult life cycle. Utilization of critical thinking, therapeutic communication and the Neuman Systems Model are used through implementation of the nursing process. Health promotion and disease prevention will be addressed.
Prerequisite: NUR 112 with a grade of C or better.
NUR 141 Adult Health Clinical I (0-6)
3 crs.
Provides the student with the opportunity to apply essential respiratory, cardiac, metabolic, gastrointestinal and endocrine systems' dysfunctions knowledge and skills to the provision of client care in the clinical setting. Students will utilize critical thinking, therapeutic communication and the Neuman Systems Model when providing care to clients. Nursing care will be provided in a variety of settings including acute care, ambulatory care and the community.
Prerequisite: NUR 112 with a grade of C or better.
Corequisite: NUR 140.
NUR 150 Psychosocial Concepts (2-0)
2 crs.
Utilizes the Neuman Systems Model and the nursing process to provide client-centered nursing care for clients experiencing psychosocial issues/mental health disorders. Emphasizes health promotion concepts in the care of clients across the life cycle and the continuum of mental health care. Addresses various treatment modalities and interventions including those applicable to community-based care.
Prerequisite: NUR 112 with a grade of C or better.

NUR 151 Psychosocial Concepts Clinical (0-4)
2 crs.
Provides experience in caring for clients with psychological issues/mental health disorders in a variety of acute care and community-based health care settings. Students will utilize critical thinking, therapeutic communication and the Neuman Systems Model in providing care to clients across the life cycle in the continuum of mental health care.
Prerequisite: NUR 112 with a grade of C or better. Corequisite: NUR 150.

NUR 180 Pathophysiology (3-0)
3 crs.
Presents the pathophysiological basis of illness for the beginning professional nurse. Focuses on major diseases and illnesses that affect the health of the individual throughout the life cycle. Theories relating etiology, pathogenesis and clinical manifestations are used to study common disease processes that compromise the client's health.
Prerequisite: BIO 161 with a grade of C or better.
NUR 199 Bridge to Advanced Nursing (2.5-1.5) 3 crs.
Focuses on the transition of the Licensed Practical Nurse (LPN) into the Harper College associate degree nursing program. Examines the philosophy of the associate degree nursing program and major concepts of the role of the Registered Professional Nurse. Includes an emphasis on application of the nursing process of selected health problems. Provides learning experiences in the laboratory and clinic to evaluate the student's knowledge of nursing concepts and performance of selected nursing skills. Discusses strategies for success. Registration limited to those students who: 1) hold licensure as Licensed Practical Nurses; 2) meet the admission requirements into the NUR AAS program; and 3) have an LPN HESI minimum test score of 850.
Prerequisite: NUR 104 with a grade of C or better. Prior or concurrent enrollment in BIO 130, NUR 180, and NUR 210 with grades of $C$ or better.

NUR 201 Child Bearing Concepts (2-0) 2 c Utilizes the Neuman Systems Model and the nursing process to provide client-centered nursing care for childbearing women, infants and clients with problems related to the reproductive system. Addresses health promotion and common alterations in body systems.
Prerequisite: NUR 141 and NUR 151 with grades of C or better.
NUR 202 Adult Health Concepts II (2-0)
2 crs.
Develops essential nursing medical and surgical knowledge and skills needed to provide nursing to clients with musculoskeletal, sensory, neurological and renal dysfunction throughout the adult life cycle with emphasis on the older adult. Utilization of critical thinking, therapeutic communication and the Neuman Systems Model are used through implementation of the nursing process. Health promotion and disease prevention will be addressed. Prerequisite: NUR 141 and NUR 151 with grades of C or better.

NUR 205 Pediatric Health Concepts (2-0)
Expands on utilization of the nursing process and application of the Neuman Systems Model in exploring the nurse's role as provider of care, educator and advocate for infants, children, and adolescents. Addresses topics of health promotion and maintenance for children and families. Considers acute, chronic and terminal conditions experienced by children.
Prerequisite: NUR 141 and NUR 151 with grades of C or better.

NUR 210 Physical Assessment (1-2)
2 crs.
Provides theory and demonstration of skills required for a basic, systematic physical assessment. Includes content and practical experience in interviewing and obtaining a health history and the skills of inspection, palpation, percussion and auscultation as they are utilized in the routine client assessment performed by the registered nurse. Focuses on the assessment of normal findings and the description of deviations from normal. Discusses cultural considerations and expected findings of individuals across the life cycle, i.e. infant/child, adolescent, young/middle adult, and older adult. Requires the synthesis of previously learned knowledge of anatomy, physiology, nursing concepts and nursing process.
Prerequisite: BIO 160 and EMS 216, or NUR 112 with grades of C or better.

## NUR 216 Adult Health Concepts III (2-0) 2 crs.

Focuses on application of advanced nursing medical and surgical knowledge and skills needed to provide nursing care to clients with hematologic, immunologic, and oncology disorders. Concepts regarding critical care will also be presented and discussed.
Utilization of critical thinking, therapeutic communication, and the Neuman Systems Model is used through implementation of the nursing process. Health promotion and disease prevention will be addressed.
Prerequisite: NUR 220, NUR 240 and NUR 250 with grades of C or better.

## NUR 218 Role Transition Seminar (1-0) <br> 1 cr.

Facilitates the transition from nursing student to entry-level registered nurse. Addresses the challenges and responsibilities associated with management and leadership within an organization, assuming a professional role, career management, nursing research and continuing education.
Prerequisite: Prior or concurrent enrollment in NUR 216 and NUR 260 with grades of C or better.

NUR 220 Child Bearing Clinical (0-4) 2 crs.
Provides experiences in caring for childbearing families and clients with reproductive problems in acute and community-based settings. Students will utilize the Neuman Systems Model and the nursing process to address common alterations in body systems. Prerequisite: NUR 141 and NUR 151 with grades of C or better. Corequisite: NUR 201.

NUR 240 Adult Health Clinical II (0-4) 2 crs. Provides the student with the opportunity to apply knowledge learned about musculoskeletal, sensory, neurological and renal dysfunction to the provision of client care in the clinical setting. Students will utilize critical thinking, therapeutic communication and the Neuman Systems Model when providing care to clients in this area. Nursing care will be provided in a variety of settings including acute care, ambulatory care and the community.
Prerequisite: NUR 141 and NUR 151 with grades of C or better. Corequisite: NUR 202.

NUR 250 Pediatric Health Clinical (0-4)
2 crs.
Applies principles of the Neuman Systems Model to the nursing care of infants, children and adolescents in hospital and community-based settings. Experience is provided in caring for children and families with a variety of specific system disorders. Emphasis will be on utilizing critical thinking and the nursing process to provide safe care in various health care settings. Prerequisite: NUR 141 and NUR 151 with grades of C or better. Corequisite: NUR 205.

NUR 260 Adult Health Clinical III (0-6)
3 crs.
Provides the student with the opportunity to apply advanced concepts to patients with complex multisystem disorders. Areas of concentration include but are not limited to hematological dysfunction, oncology, multisystem organ failure, shock, and burns. Students will utilize critical thinking, therapeutic communication and the Neuman Systems Model when providing care to clients in this clinical rotation. Nursing care will be provided in a variety of settings including acute care and the community. Prerequisite: NUR 220, NUR 240, and NUR 250 with grades of C or better.
Corequisite: NUR 216.
NUR 280 Role Transition Practicum (0-15)
5 crs.
Provides experiences to begin the transition from nursing student to registered nurse. Emphasis will be on the collaborative care and management of groups of clients with selected system disorders. The clinical experiences will enable students to assume the role of the registered nurse in the management and delegation of nursing care of clients with system disorders and will be under the direction of a registered nurse preceptor. Students will utilize critical thinking, teaching-learning principles, therapeutic communication and the Neuman Systems Model when providing care to multiple clients in the clinical setting.
Prerequisite: NUR 216 and NUR 260 with grades of C or better. Corequisite: NUR 218.

## OCC Career Foundations

OCC 030 Computers in the Workplace (3-0) 3 crs.
Presents a basic overview of the use of computers in the modern workplace. Emphasis will be placed on practical workplace applications or computer software. Enrollment is limited to students counseled and enrolled through the Office of Access and Disability Services (ADS). Carries no transfer credit.

OCC 040 Workplace Communication I (3-0) 3 crs. Explores the importance of effective communication in work situations. Methods of effective workplace communication are discussed and modeled by the students. Enrollment is limited to students counseled and enrolled through the Office of Access and Disability Services (ADS). Carries no transfer credit.

OCC 042 Workplace Communication II (3-0) 3 crs. Continues to explore the importance of effective communication in work situations. Methods of effective workplace and communication are discussed and modeled by the students. Enrollment is limited to students counseled and enrolled through the Office of Access and Disability Services (ADS). Carries no transfer credit.
Prerequisite: OCC 040 with a grade of C or better or consent of instructor.

OCC 050 Career Exploration I (3-0)
Acquaints students with the American workplace. Explores the world of work and current issues and trends affecting employability. Introduces topics such as job/career assessment, individual education and employment plans, employment/ life skills, job search techniques, employment documents, interviewing skills, employment practices and job retention skills. Enrollment is limited to students counseled and enrolled through the Office of Access and Disability Services (ADS). Carries no transfer credit.

OCC 052 Career Exploration II (3-0)
3 crs.
Continues to acquaint students with the American workplace. Explores the world of work and current issues and trends affecting employability. Continues discussion of topics such as job/ career assessment, individual education and employment plans, employment/life skills, job research techniques, employment documents, interviewing skills, employment practices and job retention skills. Enrollment is limited to students counseled and enrolled through the Office of Access and Disability Services (ADS). Carries no transfer credit.
Prerequisite: OCC 050 with a grade of C or better or consent of instructor.

OCC 060 Business Office Career Observation (1-15) 4 crs. Provides opportunities for Career Pathways students to apply their knowledge and skills in a business office setting. Classroom sessions allow for discussion of experiences and workplace practices. Enrollment is limited to students counseled and enrolled through the Office of Access and Disability Services (ADS).
Carries no transfer credit.
OCC 062 Workplace Experience (1-15)
4 crs.
Provides opportunities for Career Foundation project students to apply their knowledge and skills in a workplace setting. Classroom sessions allow for discussion of experiences and workplace practices. Enrollment is limited to students counseled and enrolled through the Office of Access and Disability Services (ADS).
Carries no transfer credit.

## PHB Phlebotomy

PHB 101 Phlebotomy Principles and Practice (3-2) 4 crs. Includes the role of the phlebotomist, infection control and safety in the workplace, venipuncture-collection equipment and supplies, skin puncture collection procedures, specimen handling, basic laboratory tests, quality assurance, communication skills and professionalism. Includes 40 successful micro and macro blood draws.
Prerequisite: Prior or concurrent enrollment in HSC 112 with a grade of $C$ or better.

## PHB 102 Phlebotomy Internship (1-8) 2 crs.

 Consists of 120 clinical hours of supervised phlebotomy practice at a local health care facility. The internship rotation schedule is arranged on an individual basis. Special registration permit for registering for the internship is required. NOTE: Possession of a current Cardiopulmonary Resuscitation (CPR) for the Health Care Provider certification card and completion of the program's health requirements are required prior to placement in the internship.Prerequisite: PHB 101 with a grade of C or better.

## PHI Philosophy

PHI 101 Critical Thinking (3-0) 3 crs.
Introduces the student to reasoning in a language-centered context. Students will learn how to identify arguments and distinguish them from other types of discourse. Some topics covered include evaluating claims, recognizing informal fallacies, problem solving and evaluating media. Students will also learn how to cast issues in a neutral manner, to recognize and appreciate a variety of perspectives, and to argue for and against more than one perspective on an issue. The focus of this course is on everyday practical reasoning. IAI H4 906

## PHI 102 Symbolic Logic (3-0)

3 crs.
Introduces the student to formal symbolic logic. After an introduction to the concept of argument, students will learn both Aristotelian and modern symbolic logic. Applications to the real world may include contracts, legal arguments, and computer languages.

PHI 105 Introduction to Philosophy (3-0)
3 crs.
Principles and problems of philosophy as seen in different schools of thought. Topics: validity of human knowledge; nature of reality; mind and body; free will and determination; moral and aesthetic values; and religious belief. IAI H4 900

PHI 115 Ethics (3-0)
3 crs.
Consideration of problems of value and conduct, including the question of the "good life" or happiness; and contemporary moral issues such as war, violence, drugs, racism, crime and punishment. IAI H4 904

PHI 120 Social and Political Philosophy (3-0) 3 crs. Focuses on the ideas of justice, liberty, equality, law and order, rights and privileges. This includes discussion of such issues as democracy, communism, nuclear war, capital punishment, sexual equality, hunger and drugs.

PHI 150 Business Ethics (3-0)
Introduces philosophical ethical theory and its application to business decisions. Consider theories of economic justice, social responsibility, hiring practices and rights of employees and employers.

PHI 160 Non-Western Philosophy (3-0)
3 crs.
Introduces selected philosophical concepts and value systems of several non-Western cultures. Gives attention to the Bhagavad Gita, Vedanta and other Hindu texts, Confucius, the Tao Te Ching and other Chinese classics and key texts from at least two other traditions. IAI H4 903N

PHI 170 Environmental Ethics (3-0)
Introduces philosophical ethical theory and its application to environmental issues. Explores the roots of Western ideas about nature (Greek, Biblical, early Modern), the American environmental discussion and current positions including development, conservation, preservation and restoration. Considers issues including human-centered vs. life-centered views, whether species or habitats have value, appreciation vs. cost/benefit approaches, and bioregionalism.

PHI 180 Biomedical Ethics (3-0)
3 crs.
Considers the ethics of the professional-patient relationship (confidentiality, informed consent, paternalism, truth-telling), the ethics of life and death (abortion, euthanasia, suicide), and the ethics of medicine on a social scale (the right to health care, the distribution of medical resources).

PHI 190 Feminist Philosophy (3-0)
3 crs.
Introduces philosophical thinking and its application to issues concerning women. Explores a variety of theories by and about women. Considers a number of issues including images of women, biological vs. social conditioning, the relation to gender to class and race, women's spirituality, education, family work, violence and pornography. Men are welcome to take the course.

PHI 205 Religions of the World (3-0) 3 crs.
Introduces the teachings, practices, social structures and histories of the religions of India (mainly Buddhism and Hinduism), and China and Japan (mainly Confucianism, Shinto and Taoism), and of the Middle East (mainly Christianity, Islam and Judaism). IAI H5 904N

PHI 210 Death and Dying (3-0)
3 crs.
Presents an interdisciplinary approach to the meaning of death. Focuses on biological, psychological, legal, philosophical and religious aspects of the phenomena of death and dying.

PHI 215 Religion in America (3-0) 3 crs. Surveys the contribution of religion to American culture including the differences between rural and urban society, the development of religious freedom and the rise of a "secular religion." Examines the emergence of new forms of belief and practice and the variety of religious issues confronting American society today. IAI H5 905

## PHI 220 Philosophy of Religion (3-0) <br> 3 crs.

Examines the nature and presuppositions of Western religions, especially the reasons which can be given for and against the existence of God. Selected further topics: the problem of evil, life after death, the nature of religious experience, language, knowledge and authority, religion and science, and major philosophical theories on the nature of religion. IAI H4 905

PHI 231 History of Philosophy: Ancient and Medieval (3-0)

3 crs.
Surveys the major figures and schools in Western philosophical tradition from the pre-Socratic Greeks through the 14th century. Emphasis on interpreting philosophical reflection in light of the social, political, religious and cultural context from which it arises. IAI H4 901

PHI 232 History of Philosophy: Modern (3-0) 3 crs. Surveys the major figures and schools in Western philosophical tradition from the 15th to the 20th century. Emphasizes interpreting philosophical reflection in light of the social, political, religious and cultural context from which it arises. IAI H4 902

## PHS Physical Science

PHS 101 Physical Science Survey (3-0)
3 crs.
Designed to give the non-science major an understanding and appreciation of motion and energy applications, geology, atmospheric science and astronomy. Knowledge of high school algebra is assumed. IAI P9 900
PHS 105 Energy and Society (3-2)
Introduces non-science majors to topics from various sciences as they relate to energy resources and energy consumption. Connects the theory of energy to its practical applications. Examines the connection between science and economics, politics and other social issues, using energy as a focus. (Meets laboratory science requirements for non-science majors.) IAI P1 901L

PHS 111 Introduction to Physical Science (3-2)
Examines topics from physics including motion, structure of matter, electricity and magnetism, waves and particles, and atomic structure and basic chemical principles. Course is for non-science majors fulfilling laboratory science requirements. Knowledge of high school algebra is assumed. IAI P1 900L
PHS 112 Exploring the Earth and Universe (3-2) 4 crs. Examines topics in rocks and minerals, earth forms and history, weather, the solar system, stars and the universe. Course is for non-science majors fulfilling laboratory science requirements. Knowledge of high school algebra is assumed. IAI P1 905L
PHS 115 Introduction to Meterology (3-2) 4 crs.
Gives the non-science major an understanding and appreciation of the composition and structure of the atmosphere, thermodynamic processes, forces and related small- and largescale motions, air masses, fronts, tropical cyclones, solar and terrestrial radiation, severe weather, basic weather forecasting techniques, and general circulations that affect the atmosphere. Knowledge of high-school algebra is assumed. IAI P1 905L

PHS 170 Fundamentals of Nanoscience (2-2) 3 crs. Studies the field of nanotechnology, the capability to observe and manipulate systems at the molecular or atomic scale that is affecting all traditional sciences. Provides an introduction to the history, tools, materials, and current and emerging applications of nanotechnology.(formerly NAN 121) IAI P9 900L
Prerequisite: MTH 080 or higher with a grade of C or better, or required MTH 103 placement test score.

## PHY Physics

PHY 100 Basic Concepts in Physics (3-0)
3 crs.
Examines basic topics in physics including motion, force, energy, electricity and magnetism, waves and particles, and atomic structure. Course is for non-science majors fulfilling nonlaboratory science requirements. IAI P1 900
Prerequisite: MTH 080 with a grade of C or better, or placement into MTH 101.

PHY 121 Introductory Physics I (4-3)
5 crs.
Covers mechanics, heat, fluids, and sound. Intended for students in life science, architecture and technology. Students pursuing degrees in engineering, physics, or chemistry should enroll in PHY 201. Knowledge of high school trigonometry assumed. IAI P1 900L
Prerequisite: MTH 140 with a grade of C of better,or required math placement test score into MTH 200.

PHY 122 Introductory Physics II (4-3)
5 crs.
Continues PHY 121. Topics in electricity, magnetism, light and modern physics.
Prerequisite: PHY 121 with a grade of C or better.
PHY 201 General Physics I: Mechanics (4-2) 5 crs. Introduces mechanics using calculus. Topics include force and motion; work and energy; rotation; oscillations; and fluids. For students in chemistry, engineering, mathematics and physics. IAI P2 900L
Prerequisite: MTH 201 with a grade of $C$ or better or concurrent enrollment.

## PHY 202 General Physics Ii: Electricity and Magnetism

 (4-2)5 crs.
Introduces electricity and magnetism using calculus. Topics include charge; electric field and potential; resistance, capacitance, and inductance; DC and AC circuits; magnetic fields; laws of Gauss, Ampere, and Faraday; Maxwell's equations and electromagnetic waves; geometric optics, lenses and mirrors, interference and diffraction, and polarization. Intended for students in chemistry, engineering, mathematics and physics.
Prerequisite: MTH 202 with a grade of $C$ or better or concurrent enrollment, and PHY 201 with a grade of C or better.

## PHY 203 General Physics lii: Thermal and Quantum Physics

 (4-2) 5 crs. Introduces thermodynamics and quantum physics. Topics include temperature and heat; ideal gas law; first and second law of thermodynamics; kinetic theory of gases; entropy; relativity; quantization; the atom; solid state physics and conduction; nuclear and elementary particle physics. Intended for students in chemistry, engineering, mathematics and physics.Prerequisite: MTH 212 with a grade of $C$ or better or concurrent enrollment, and PHY 202 with a grade of C or better.

## PLS Paralegal Studies

PLS 101 Introduction to Paralegal Studies (3-0)
3 crs.
Surveys the functions of law; courts and lawyers in modern society; analysis of the origin, training and role of the paralegal; professional responsibilities of the lawyer; outline of the fields and specializations within the practice of law; and instruction in legal research and writing upon a review of the sources and works of law. Students must take the Paralegal Studies entrance examination.

PLS 102 Fundamentals of Legal Research (3-0) 3 crs.
Orients students to law library and various legal publications, treatises and other legal writings encountered in day-to-day practice of law. Emphasizes developing student capability to analyze, interpret and communicate facts, ideas and law through comprehension of legal research techniques.
Prerequisite: PLS 101 with a grade of C or better, or consent of program coordinator.

## PLS 103 Litigation (3-0)

3 crs.
Emphasizes the role of the paralegal in litigation. Analyzes civil procedure and instruction in preparation of documents used in lawsuits, covering pre- and post-trial matters, evidentiary problems and assistance during trials.
Prerequisite: PLS 101 with a grade of C or better, or consent of program coordinator.

## PLS 105 Family Law (3-0)

3 crs.
Emphasizes the role of the paralegal in family law. Examines domestic relations law with emphasis on marriage, divorce, annulment, separation agreements, adoption and other legal matters involving the family.
Prerequisite: PLS 101 with a grade of C or better, or consent of program coordinator.

PLS 123 Real Property Law (3-0)
3 crs.
Provides historical study of common law estates and interests and statutes. Emphasizes the role of and relationship between the attorney and the paralegal in preparing the more common types of real property transactions and conveyances such as deeds, contracts and leases; drafting problems involving these various instruments; special research projects related to the subject matter; and a study of the system of recording and search of public documents. Students must take the Paralegal Studies entrance examination or have the coordinator's consent prior to registration.

## PLS 200 Probate (3-0) 3 crs.

Emphasizes the role of the paralegal in probate matters. Surveys the principles, history and sources of probate law; examines probate court forms and tax returns; and details instruction in gathering information and preparing documents for the paralegal's supervising attorney.
PLS 201 Tort and Insurance Law (3-0) 3 crs. Emphasizes the role of the paralegal in tort and insurance law. Studies basic tort and insurance principles; examines insurance claim procedures and pleading forms used in litigation of various actions.

## PLS 202 Estate Planning (3-0) 3 crs.

 Emphasizes the role of the paralegal in estate planning. Examines common forms of wills and trusts; survey of legal principles applicable thereto; and instruction in draftsmanship of documents by the paralegal for the supervising attorney.
## PLS 205 Contract Law (3-0)

3 crs.
Surveys the principles, history, and sources of contract law. Examines the elements of a valid, enforceable contract. Provides instruction regarding the drafting of contracts. Examines Article 2 of the Uniform Commercial Code regarding the sale of goods. Emphasizes the role of the paralegal in contract law.

PLS 206 Environmental Law (3-0) 3 crs.
Studies American environmental law. Students will learn about the Clean Air Act, the Clean Water Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Endangered Species Act, wetlands, asbestos, and environmental racism. Emphasis is placed on the role of the paralegal in an environmental law issue. Ethical issues dealing with environmental law are also presented and discussed.

PLS 208 Internship in Paralegal Studies (1-10) 3 crs.
Provides supervised experience in a legal setting to enhance students' technical paralegal skills. One-hour seminar each week devoted to paralegal issues.
Prerequisite: PLS 101, PLS 102, PLS 103, and a PLS elective with grades of $C$ or better.

PLS 210 Corporate and Securities Law (3-0) 3 crs
Prepares paralegal students to aid in incorporation, corporate record keeping and compliance with administrative regulations. This includes the understanding of statutes, rules, forms and releases pertaining to the principal acts administered by the Securities and Exchange Commission.

PLS 212 Law Office Management (3-0)
3 crs.
Studies law office management relying on the system analysis approach to examine design, methods and develop processes necessary for integrating the paralegal into the hierarchy of the organization of a law office with emphasis on defining functions of the lawyer, paralegal and legal secretary.

PLS 220 Community Law (3-0)
3 crs.
Develops skills and competencies needed to recognize legal problems and comply with the procedures relating to various government agencies. Emphasis will be on federal housing and landlord-tenant law; mental and civil commitments; welfare laws; labor law; social security law; and consumer protection law. The paralegal's role in community law is stressed.

PLS 221 Bankruptcy Law (3-0)
3 crs.
Surveys the principles, history and sources of bankruptcy law in the United States. Examines the law relating to Chapters 7, 9, 11, 12 and 13 of the United States Bankruptcy Code. Provides instruction in the drafting of the schedules needed for Chapter 7, $9,11,12$ and 13 filings. Examines the jurisdiction of the federal bankruptcy courts. Stresses the role of the paralegal in bankruptcy law.

PLS 222 Intellectual Property (3-0)
3 crs.
Provides historical study of the development of intellectual property law in the United States. Emphasizes the role of the paralegal in preparing applications for patent, copyright, and trademark protections with federal and state governments. Provides an overview of the role of the paralegal in preparing for litigation involving intellectual property law issues. Reviews ethical issues that arise in the intellectual property arena.

PLS 223 Computer-Assisted Legal Research (3-0) 3 crs. Provides the paralegal student with exposure to and training in the use of the computer to perform legal research. Emphasizes Westlaw, LEXIS, and Internet research. Introduces the student to the latest forms of computer-assisted legal research as they become available.
Prerequisite: PLS 102 with a grade of C or better, or consent of program coordinator.

PLS 224 Commercial Real Estate Law (3-0)
3 crs.
Studies American commercial real estate law. Students will learn the anatomy of a commercial real estate transaction; the role of a paralegal in a commercial real estate transaction; the importance of title searches and surveys; and the role of leases, easements, and licenses. Students will also review the process utilized to obtain commercial real estate mortgages and the role of a paralegal in preparing for a commercial real estate closing. Emphasis is placed on the role of the paralegal in commercial real estate transactions. Ethical issues dealing with commercial real estate are also presented and discussed.

## PLS 230 Topics in Paralegal Studies (1-0 to 6-0) 1-6 crs.

 Studies selected problems or topics in paralegal studies. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated two times to a maximum of six credit hours.
## PSC Political Science

PSC 101 American Politics and Government (3-0) 3 crs.
Focuses on political involvement, elections, campaigns, interest groups, Congress, courts, the presidency, and the constitution. Discusses how our government runs, as well as current political controversies. Utilizes political figures as guest speakers and offers opportunities for political participation, especially in election years. IAI S5 900

PSC 210 Topics in Political Science (1-0 to 6-0) 1-6 crs. Studies selected problems or topics in political science. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be taken from one to six credit hours.

## PSC 220 State and Local Government in the United States

 (3-0)3 crs.
Examines state and local governments including their powers, organization, functions, development, politics and contemporary issues/problems. IAI S5 902

PSC 250 Comparative Politics (3-0)
3 crs.
Explores the politics of selected countries in Africa, Asia, Europe, Latin America and/or the Middle East. Examines economic, social and political patterns and problems in different nations. IAI S5 905

PSC 260 Middle Eastern Politics (3-0) 3 crs. Examines political, social, economic, military, religious and terrorist forces in the Middle East. Investigates the politics of specific countries in the area.

## PSC 270 Global Politics (3-0) 3 crs.

Uses role playing to study how foreign policy is made. Explores human problems such as populations, food and energy on a global dimension. Examines international bodies, including the United Nations, and explores how nations interact. IAI S5 904

PSC 280 Non-Western Comparative Politics (3-0) 3 crs. Examines the political systems of selected non-Western countries, including common governmental problems, causes of political instability and revolution and techniques of political analysis. IAI S5 906N

## PSY Psychology

PSY 101 Introduction to Psychology (3-0)
3 crs.
Investigates human and animal behavior with emphasis on the scientific nature of contemporary and classic psychological investigation. Emphasizes psychological theories, principles, and research applications. Introduces the divisions of the American Psychological Association. References biological processes, sensation, perception, learning, memory, thinking, emotional life, mental disorders, intelligence, aptitude, personality, development, daily life and everyday problems. IAI S6 900

PSY 106 Practical Psychology (1-0 to 3-0) 1-3 crs
Presents a practical application of the psychological principles that lead to efficiency of learning, adjustment, motivation, communication and attitudes in everyday life and classroom situations. This course does not meet Social Science requirements; it is a Group 6 elective for the AA and AS degree programs.

PSY 107 Humanistic Psychology (2-0)
2 crs.
Focuses on various aspects of human behavior and personality. Several theories of psychosocial adjustment are presented and discussed. Through class discussion and structured activities in this workshop-style course, students will examine their values, attitudes, experiences, strengths, weaknesses and interpersonal skills and how these affect themselves and others.

PSY 108 Topics in Psychology (2- to 3-)
2-3 crs.
Provides specific topic seminars which allow each student the opportunity to examine current issues, such as career development, developing self-esteem, happiness or personal development. The focus is on the analysis and organization of experiences for personal and positive growth. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with preregistration materials each time that the course is offered. This course may be repeated two times to a maximum of six credit hours.

PSY 210 Introduction to Research in Psychology (3-0) 3 crs. Investigates the basics of scientific inquiry, corresponding methods and the various statistical and mathematical analyses used by psychologists. Explores ethical issues, data collection procedures, empirically-based literature as well as observational, correlational, experimental, quasi-experimental methods and introduces Structural Equation Modeling. Introduces SPSS and delineates the differences between basic and applied research. Prerequisite: PSY 101 or consent of instructor.

PSY 216 Child Psychology (3-0)
Investigates the psychological development of the child from conception through pubescence. Emphasizes the theories, principles and empirically derived findings of Child Psychology. Explores cultural and/or international contexts as well as normative and non-normative patterns of development. Discusses mortality during childhood. Integrates the various child psychopathologies. IAI S6 903
Prerequisite: PSY 101 or consent of instructor.
PSY 217 Adolescent Psychology (3-0)
Investigates the psychological development of humans from late childhood through adolescence and young adulthood. Emphasizes the theories, principles and empirically derived findings of Adolescence Psychology. Explores cultural and/or international contexts as well as normative and non-normative patterns of development. Discusses mortality during adolescence. Integrates the study of adolescent psychopathologies. IAI S6 904 Prerequisite: PSY 101 or consent of instructor.

PSY 218 Adult Psychology (3-0) 3 crs.
Investigates the biological, physical, social and psychological development of humans from young adulthood to death and through grief and bereavement. Emphasizes theories, principles and empirically derived findings of Adult Psychology. Addresses cultural and/or international contexts as well as normative and non-normative patterns of development. Discusses mortality throughout adulthood and adult psychopathologies. IAI S6 905 Prerequisite: PSY 101 or consent of instructor.

PSY 220 Biological Basis of Behavior (3-0)
3 crs.
Investigates the biological, psychological and clinical approaches to understanding the nervous system as the basis of behavior. Explores perception, memory, motivation, learning and emotion from a biological perspective. Emphasizes the theories, principles and empirically derived findings of Biological Psychology.
Prerequisite: PSY 101 or consent of instructor.
PSY 225 Theories of Personality (3-0) 3 crs.
Investigates the determining factors and dynamics of human personality including major historical and contemporary perspectives of personality. Emphasizes the theories, principles and empirically derived findings of personality. Evaluates assessment measures, their construction and appropriate use. Explores cultural and/or international contexts of personality. IAI PSY 907
Prerequisite: PSY 101 or consent of instructor.
PSY 228 Psychology of Human Development (3-0) 3 crs. Investigates the psychological development of humans from conception to death, through grief and bereavement. Investigates the theories, empirically derived science and principles of developmental researchers and developmental psychologists. Emphasizes cultural and/or international contexts as well as normative and non-normative patterns of development. Discusses mortality throughout the life-span. Integrates developmental psychopathologies. IAI S6 902
Prerequisite: PSY 101 or consent of instructor.
PSY 230 Abnormal Psychology (3-0) 3 crs.
Investigates the classification, diagnosis, assessment, etiology and treatment of the mental disorders. Evaluates the theories, principles and empirically derived findings concerning the biological, psychological, social and cultural influences of abnormal behaviors. Introduces the Diagnostic and Statistical Manual of Mental Disorders (DSM) and its coding criteria, as well as the World Health Organization's statistical classifications (ICD). Explores the principles and practices of clinical psychologists and clinical researchers. IAI PSY 905
Prerequisite: PSY 101 or consent of instructor.
PSY 235 Learning Theory and Human Behavior (3-0) 3 crs. Investigates the historical and contemporary principles of learning theories as applied to human and animal behaviors. Evaluates the application of learning theories and principles in a variety of settings and treatment modalities. Discusses the empirically derived findings of behaviorism and behavioral researchers. Prerequisite: PSY 101 or consent of instructor.

PSY 245 Industrial/Organizational Psychology (3-0) 3 crs. Investigates organizational behavior. Explores theories, principles, applications and empirically derived findings of Industrial/Organizational Psychology. Emphasizes classic and contemporary leadership and motivation theories. Discusses structure and management practices; individual and work group behavior; employee culture and employer culture; and organizational conflict and resolution. Addresses international perspectives. IAI PSY 906
Prerequisite: PSY 101 or consent of instructor.

## RAC Refrigeration and Air Conditioning

RAC 101 Refrigeration Fundamentals (3-3) 4 crs. Introduces vocabulary, concepts and scientific principles used in the refrigeration industry. Develops skills in pipe fitting, use of hand tools and operation of instruments used in the refrigeration trade.

RAC 102 Refrigeration Systems (3-3)
4 crs.
Continues to develop principles and concepts learned in RAC 101. Familiarizes students with components and accessories added to basic refrigeration systems for special applications. Develops trouble-diagnosing procedures.
Prerequisite: RAC 101 with a grade of C or better.
RAC 103 Heating Principles (3-3) 4 crs.
Describes sources and methods of producing heat for residential, commercial and industrial systems. Develops skills in testing, adjusting, and replacing heating system components.

RAC 104 Residential Comfort Systems (2-2)
3 crs.
Integrates concepts, principles and knowledge of equipment available for residential comfort systems including solar heat. Describes several residential systems and places emphasis on diagnosing system malfunctions.
Prerequisite: RAC 101 and RAC 103 with grades of $C$ or better.
RAC 105 Heating and Cooling Controls (3-3)
4 crs.
Describes the purposes and principles of operation, and causes of failure in electrical components common to residential and small commercial systems. Emphasizes wiring schematics and diagrams.
Prerequisite: RAC 103 with grades of C or better.
RAC 106 Advanced Controls (3-3)
4 crs.
Continues RAC 105. Includes electrical components. Emphasizes control systems, system malfunctions and proper repair procedures.
Prerequisite: RAC 105 with a grade of C or better.
RAC 108 Domestic Refrigeration Appliances (3-3) 4 crs. Provides a comprehensive examination of the operation, problem solving and repair of residential refrigeration appliances.
Prerequisite: RAC 101 and RAC 105 with grades of C or better.
RAC 201 Refrigeration System Design I (3-3)
4 crs.
Considers the factors in the selection of refrigeration compressors, evaporators, condensers, and compressor oil, as well as the accessories used in commercial refrigeration. Examines the thermodynamic properties of the common refrigerants.
Prerequisite: RAC 102 with a grade of C or better, or consent of instructor.

RAC 202 Refrigeration System Design II (3-3)
4 crs.
Continues consideration of factors in the selection of metering devices, pipe sizing, motors and controls. Develops concepts of lubrication, multi-staging and cascade freezer systems.
Prerequisite: RAC 201 with a grade of $C$ or better, or consent of instructor.

RAC 203 Air Conditioning Principles (2-2)
3 crs.
Examines the properties of air through the use of the psychometric chart and tables. Studies methods of computing heat gains and losses for residential and light commercial systems.
Prerequisite: RAC 104 with a grade of C or better, or consent of instructor.

RAC 204 Air Distribution (2-3)
3 crs.
Considers the factors in the selection of a duct system for efficient air distribution. Studies fan laws and pressure drops for proper fan and duct size selection. Describes types of registers and their location for optimum performance.
Prerequisite: RAC 104 with a grade of $C$ or better, or consent of instructor.

## RAD Radiologic Technology

RAD 101 Introduction to Radiologic Technology (2-0) 2 crs.
Provides an introduction to the field of radiologic technology, health care delivery systems, issues related to the health care environment, importance of effective communication, team building, professionalism, and diversity in the health care center. The student will develop basic skills in radiography and patient care essential for providing quality health care. Professional development and lifelong learning will also be emphasized by introducing the students to various organizations and agencies within radiography and other health care systems. Additional fee charged for HealthStream testing. NOTE: Students must be admitted into the Radiologic Technology program to register for this course.
RAD 102 Radiologic Procedures I (2-2)
3 crs.
Examines radiologic anatomy and examination procedures for the upper appendicular skeleton, the chest and the abdomen. The basic concepts of radiologic positioning are presented. Students are taught techniques and procedures related to reading various types of technique charts and are able to program X-ray units for correct exposure for designated examination. NOTE: Students must be admitted into the Radiologic Technology program to register for this course.
Prerequisite: Prior or concurrent enrollment in HSC 104, HSC
107 and HSC 112 with grades of C or better.
Corequisite: RAD 101 and RAD 103.
RAD 103 Radiologic Principles I (2-2) 3 crs. Introduces students to the principles of radiography and factors controlling radiologic production and radiation protection. Radiation production, prime factors, radiographic film, intensifying screens, picture archived communication system/computerized radiography, laser printers, and film processing are presented. NOTE: Students must be admitted into the Radiologic Technology program to register for this course.
Prerequisite: Prior or concurrent enrollment in HSC 104, HSC 107 and HSC 112 with grades of C or better.
Corequisite: RAD 101 and RAD 102.
RAD 105 Radiologic Procedures II (2-2) 3 crs.
Examines the radiologic anatomy and examination procedures for the lower extremity and bony thorax. Students are taught to read various types of technique charts and program X-ray units for correct exposure for these examinations.
Prerequisite: RAD 102 and RAD 103 with grades of $C$ or better. Corequisite: RAD 106 and RAD 107.
RAD 106 Radiologic Principles II (2-2)
3 crs.
Provides supervised environment to develop the necessary skills needed to evaluate the radiologic image and provide appropriate recommendations for improving the diagnostic quality of the radiograph.
Prerequisite: RAD 103 with a grade of C or better.
Corequisite: RAD 105 and RAD 107.
RAD 107 Radiologic Clinical Education I (0-8) 2 crs.
Applies principles of radiologic positioning under the supervision of qualified registered American Registry of Radiologic Technologists (ARRT) technologist. Emphasizes appendicular and axial skeleton. Includes principles of exposure, image quality and other associated professional skills. Placement of clinical assignment by program coordinator. NOTE: American Heart Association Cardiopulmonary Resuscitation (CPR) certification must be completed prior to placement in a clinical rotation. Prerequisite: RAD 102 and RAD 103 with grades of C or better. Corequisite: RAD 105 and RAD 106.

RAD 201 Radiologic Clinical Education II (0-8) 2 crs. Applies principles of radiologic positioning under the supervision of qualified registered American Registry of Radiologic
Technologists (ARRT) technologist. Continued emphasis on contrasted procedures, appendicular and axial skeleton, the chest and bony thorax, and other radiologic skills. Placement of clinical assignment and seminar by program coordinator.
Prerequisite: RAD 107 with a grade of $C$ or better.
RAD 202 Radiologic Procedures III (1-0) 1 cr .
Covers the radiologic anatomy and examination procedures for the digestive, urinary, and hepatobiliary systems. Students are taught to read various types of technique charts and program $X$ ray units for correct exposure for these examinations.
Prerequisite: RAD 102 and RAD 105 with grades of C or better. Corequisite: RAD 201.

RAD 215 Principles and Procedures in Mammography (3-0)

3 crs.
Provides a detailed overview of the history, equipment and radiographic principles and their application to mammography. Course focuses on breast anatomy and physiology, mammographic techniques, positioning skills, critical equipment features, image receptor characteristics, and image quality management. Successful completion of this course along with RAD 216 will meet the required contact hours of documented learning required to sit for the Mammography Technologist Certification exam. This course may be scheduled as (1) a weeklong (five days) course offered in fall and spring, (2) one full day per week for five weeks, or (3) two evenings per week for six weeks.
Prerequisite: Admission into the Mammography certificate program.

## RAD 216 Mammography Externship (0-2)

Provides students with 32 hours of clinical experience to gain required skills to perform quality breast imaging mammograms in a health care setting under the direct supervision of a qualified practitioner. Emphasis on principles and procedures of mammography. Presented as a precepted clinical to complete in two weeks immediately following successful completion of RAD 215.

Prerequisite: Prior or concurrent enrollment in RAD 215.
RAD 222 Radiologic Procedures IV (2-2)
3 crs.
Covers the radiologic anatomy and examination procedures for the vertebral column, the cranium, paranasal sinuses and facial bones. Includes instruction on how to read various types of technique charts and program X-ray units for correct exposure for these examinations.
Prerequisite: RAD 102, RAD 105 and RAD 202 with grades of $C$ or better.
Corequisite: RAD 225.
RAD 223 Advanced Radiologic Principles (2-0) 2 crs.
Provides a continuation of topics covered in RAD 106 such as the principles involved in diagnostic X-ray production and radiographic and fluoroscopic equipment. Topics include $X$ ray production, electromagnetic interactions with matter, Xray devices, equipment circuitry, targets and filtration. Covers the application of physical concepts as related to X-ray image production.
Prerequisite: RAD 106 with a grade of C or better.
Corequisite: RAD 222, RAD 224, and RAD 225.
RAD 224 Radiobiology (2-0)
Provides an in-depth study of radiation biology, radiation regulations and radiation measurements. Somatic and genetic effects of ionizing radiation is presented. Radiation safety practices for staff and patients/clients are covered.
Prerequisite: RAD 106 with a grade of C or better.
Corequisite: RAD 222, RAD 223 and RAD 225.

RAD 225 Radiologic Clinical Education III (0-12)
3 crs.
Provides a continuation of radiologic experiences with emphasis on radiographic positioning of the cranial and facial bones; trauma; surgery and mobile procedures; and observation of radiologic interpretation. Placement of clinical assignment by program coordinator. (Formerly RAD 205).
Prerequisite: RAD 201 with a grade of C or better.
Corequisite: RAD 222, RAD 223, and RAD 224.
RAD 228 Digital Imaging (0.5-1)
1 cr.
Provides an in-depth investigation of digital medical imaging including digital radiography systems, image acquisition, exposure principles, image processing and post-processing, image display and quality control, and picture archiving and communication systems. The student will gain a comprehensive understanding of computer system components and function, digital imaging systems (including comparison with film/screen systems), radiation safety principles, cassette-based compared with cassetteless systems, exposure factor and processing selections, quality assurance and acceptance standards.
Prerequisite: RAD 106 and RAD 223 with grades of $C$ or better. Corequisite: RAD 239.

RAD 236 Radiologic Pathology (3-0)
3 crs.
Examines the etiology and processes of trauma and disease. Emphasis placed on radiologic pathology of body systems. (Formerly RAD 206).
Prerequisite: RAD 222 and RAD 224 with grades of $C$ or better. Corequisite: RAD 240.

RAD 237 Radiologic Quality Assurance (0.5-1) 1 cr. Presents analytical and statistical concepts and tools necessary to plan and manage continuous quality improvement efforts in a health care setting. Emphasis is placed on analyzing radiological processes to ensure quality patient care and services, to improve departmental efficiency and to establish and maintain a nurturing work environment. (Formerly RAD 207).
Prerequisite: RAD 225 with a grade of C or better.
RAD 238 Sectional Anatomy for Imaging (2-0) 2 crs.
Studies human anatomical structures in multiple imaging planes.
Reviews images created by MRI and Computed Tomography as well as gross anatomical images. Focuses primarily on identification of normal anatomy, but also includes some pathological conditions. Discusses the role of MRI and CT in physiological imaging.
Prerequisite: BIO 161 with a grade of C or better.
RAD 239 Radiologic Special Procedures (3-0) 3 crs. Emphasizes routine special procedures including cardiovascular imaging, neuroradiography, reproductive system radiography and special studies of the viscera. The course details portable and surgical radiography, pediatric and geriatric radiography and related imaging modalities such as mammography, computed tomography, magnetic resonance imaging, ultrasonography and neuroradiography. Includes interventional radiology procedures such as stent-coil placement and venous access placement. The student will be able to participate and function in each of these different special procedures. (Formerly RAD 209).
Prerequisite: RAD 222 with a grade of C or better.
Corequisite: RAD 236, RAD 237, and RAD 240.
RAD 240 Radiologic Clinical Education IV (0-12) 3 crs.
Covers advanced clinical experiences with guided practice of special procedures. Experience with mobile units at bedside and in the operating room and emergency room. Placement of clinical assignment by the program coordinator. (Formerly RAD 210).
Prerequisite: RAD 225 with a grade of C or better
Corequisite: RAD 236, RAD 237, and RAD 239.

RAD 251 Radiologic Clinical Education V (0-12) 3 crs.
Provides a continuation of advanced clinical experiences with guided practice of special procedures. Experience with mobile units at bedside, in the operating room and in the emergency room. Placement of clinical assignment by the program coordinator. (Formerly RAD 211).
Prerequisite: RAD 239 and RAD 240 with grades of C or better.
RAD 258 Radiologic Seminar (1-0)
1 cr .
Provides a review and discussion of radiologic principles, techniques and methods, and film critique. Emphasis is placed on the interdependence of theory and principles in preparation for the American Registry for Radiologic Technology (ARRT) examination and resume writing and job search skills. (Formerly RAD 208).
Prerequisite: RAD 236 and RAD 240 with grades of C or better.
RAD 260 CT Procedures/Patient Care (3-0)
3 crs.
Provides detailed coverage of procedures for CT imaging. Procedures include, but are not limited to, indications for the procedure, patient education, preparation, orientation and positioning, patient history and assessment, contrast media usage, scout image, selectable scan parameters, filming and archiving of the images. CT procedures will be taught for differentiation of specific structures, patient symptomology and pathology. CT images studied will be reviewed for quality, anatomy and pathology. CT procedures vary from facility to facility and normally are dependent on the preferences of the radiologists. (NOTE: This course is pending ICCB approval.) Prerequisite: Admission into the Computerized Tomography program and prior or concurrent enrollment in RAD 238 with a grade of $C$ or better.
Corequisite: RAD 261.
RAD 261 CT Principles I (3-0)
3 crs.
Imparts the fundamentals of the physical principles and instrumentation utilized in computed tomography (CT) Reviews the historical development and evolution of CT. Physics topics covered include CT beam attenuation, linear attenuation coefficients, tissue characteristics and Hounsfield numbers application. Explains data acquisition and manipulation techniques and image reconstruction algorithms such as filtered backprojection. Explores CT systems and operations with full coverage of radiographic tube configuration, collimator design and function, detector type, characteristics and functions of the CT computer and array processor. Examines CT image processing and display from data acquisition through post-processing and archiving, and patient factors related to other elements affecting image quality as well as artifact production and reduction, and image communication. (NOTE: This course is pending ICCB approval.) Prerequisite: Admission to the Computed Tomography (CT) Program is required or consent of instructor and prior of concurrent enrollment in RAD 238 with a grade of $C$ or better. Corequisite: RAD 260.

RAD 262 CT Principles II (2-0)
2 crs.
Continues the physical principles and instrumentation involved in computerized tomography (CT). Physics topics covered include the characteristics of x-radiation, CT beam attenuation, linear attenuation coefficients, tissue characteristics and quality control procedures. Also includes an overview of the principles of radiation protection including the responsibilities of the radiographer for patients, personnel and the public. Incorporates radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations. (NOTE: This course is pending ICCB approval.) Prerequisite: RAD 238, RAD 260 and RAD 261 with grades of $C$ or better.

RAD 263 CT Clinical Education I (0-12) 3 crs.
Applies principles of computerized tomography procedures under the supervision of qualified registered American Registry of Radiologic Technologists (ARRT) technologist. Emphasizes principles of exposure, image quality, patient care, radiation safety and other associated professional skills. Placement of clinical assignment is by program coordinator. NOTE: American Heart Association Cardiopulmonary Resuscitation (CPR) certification and required Healthstream modules must be completed prior to placement in a clinical rotation. (NOTE: This course is pending ICCB approval.)
Prerequisite: RAD 260 and RAD 261 with grades of $C$ or better. Corequisite: RAD 262.

RAD 264 CT Clinical Education II (0-12)
3 crs.
Continues to apply the principles of computerized tomography procedures under the supervision of a qualified registered American Registry of Radiologic Technologists (ARRT) technologist. Emphasizes the principles of exposure, image quality, patient care, radiation safety and other associated professional skills. Placement of clinical assignment is by program coordinator. NOTE: American Heart Association Cardiopulmonary Resuscitation (CPR) certification and required Healthstream modules must be completed prior to placement in a clinical rotation. (NOTE: This course is pending ICCB approval.)
Prerequisite: RAD 262 and RAD 263 with grades of $C$ or better.

## RDG Reading

RDG 080 Reading Skills I-Deaf/Hard-of-Hearing (4-0) 4 crs. Presents instruction in the fundamental reading skills for deaf and hard-of-hearing students. Recognizing the unique learning needs of deaf/hard-of-hearing students, American Sign Language (ASL) will be used to promote the development of reading skills. Vocabulary development will be stressed. This course will stress both academic reading development and reading in a vocational context. Carries no transfer credit.

RDG 085 Reading Skills II-Deaf/Hard-of-Hearing (4-0) 4 crs. Continues the development of fundamental reading skills from RDG 080. The student's first language, American Sign Language (ASL), will be used to promote the development of reading skills. The curriculum materials will once again stress vocabulary development, academic reading development and vocational applications. Carries no transfer credit.
Prerequisite: RDG 080 with a grade of C or better, or consent of instructor.

## RDG 090 Fundamentals of Reading (3-0)

3 crs.
Presents instruction in the fundamental skills of reading. Designed for students whose linguistic and reading skills are insufficient for successful college work. Enrollment is determined by a score below the required score on the Harper College reading assessment test. Prepares students for RDG 097 or RDG 099. Carries no transfer credit.

RDG 091 Bridge to CNA Success (2-0 to 4-0) 2-4 crs.
Prepare students for success in passing CNA 101 and the State of Illinois Nurse Aide Competency Exam. Includes instructions in Blackboard and other online instructional tools, reading comprehension strategies, study skills and time management techniques, CNA course vocabulary review, test-taking strategies and practice, supplemental instruction, and personal and classroom career counseling support. Carries no transfer credit. Prerequisite: ENG 100 or ENG 101 with a grade of C or better; or ESL 073 with a grade of B or better; or RDG 090 or RDG 099 with a grade of $C$ or better; or an ACT Reading score of 20 or higher; or required placement test scores.

RDG 097 Reading and the College Textbook (3-0) 3 crs
Provides classroom instruction in reading strategies to improve comprehension and vocabulary development in the college text. Utilizes a specific text from a selected college course and related readings with the goal to bring textbook reading skills to college level. Student must enroll in an identified course that is paired with RDG 097. Successful completion of RDG 097 fulfills the reading proficiency requirement of the Harper College assessment policy. Carries no transfer credit.
Prerequisite: RDG 090 with a grade of C or better, or required placement test score.

RDG 099 Developmental Reading (3-0)
3 crs.
Provides classroom instruction in comprehension utilizing a wide variety of written materials for students who need assistance in bringing their reading skills to college level. Enrollment in RDG 099 is determined by obtaining a score below the passing score on the Harper College reading placement test. Successful completion of RDG 099 fulfills the reading proficiency requirement of the Harper College assessment policy. Carries no transfer credit.
Prerequisite: ENG 001 or RDG 090 with a grade of C or better, or required placement test score.
RDG 100 Reading for the Technologies (3-0)
3 crs.
Teaches reading, writing and problem-solving strategies appropriate to vocational/technical programs. Provides practice with applying skills necessary for success in specific careervocational programs. Carries no transfer credit.

RDG 106 Critical College Reading Skills (3-0) 3 crs. Develops the full array of mature, fluent reading skills, including critical and analytical comprehension, content area reading, predictive reading, vocabulary development, speed and flexibility. Also covers theories of comprehension and language development.

## SCM Supply Chain Management

## SCM 101 Supply Chain Management (3-0) <br> 3 crs.

Provides an introduction and overview of the field of supply chain management. Topics covered include objectives, benefits, relationships with other functions, organization, planning, inventory control, production control, purchasing, just-in-time, receiving and stores, material handling, physical distribution, automation, implementation and pitfalls, measurement and control, and finance.

SCM 120 Production Control Concepts (3-0) 3 crs.
Describes the development, scope, and objectives of production control. Specific attention will be given to scheduling, control, critical path, machine loading, materials requirements planning, and other techniques, functions, and activities which are implicit in this aspect of material management operations.
Prerequisite: SCM 101 or consent of program coordinator.
SCM 121 Principles of Physical Distribution (3-0) 3 crs. Movements of goods from production to delivery to distribution channel intermediaries. Attention is focused upon distribution channels, traffic management, warehousing, inventories, organization, control and communication. Heavy emphasis is given to distribution design and distribution system analysis. Prerequisite: SCM 101 or consent of program coordinator.

SCM 122 Inventory Control (3-0)
3 crs.
Provides an overview of the dynamics of managing inventory in the constantly changing industrial and commercial environment. Topics include forecasting sales and inventory requirements, computer applications to inventory control problems, building inventory models, simulation and the relationships of inventory control to marketing management and production control.
Prerequisite: SCM 101 or consent of program coordinator.

SCM 123 Traffic and Transportation (3-0)
3 crs.
Provides an overview of transportation systems and the impact on costs and service that each system provides. Examines costs in various modes and routings. Reviews operational aspects of the transportation function
Prerequisite: SCM 101 or consent of program coordinator.
SCM 124 Material Handling and Packaging (3-0) 3 crs.
Presents material handling and packaging as tools for use in a total system of material management. Material handling concepts include palletization, containerization, conveyor systems, fully automated warehousing and integrated production lines. Packaging is treated as a function with ramifications far beyond the mere protection of a product.
Prerequisite: SCM 101 or consent of program coordinator.
SCM 125 Purchasing (3-0)
3 crs.
Covers the nature and importance of the procurement function in modern business organizations. Principles, tools, methods and techniques employed for the acquisition of materials, supplies and equipment.

## Prerequisite: MKT 245 or SCM 101.

SCM 226 Material Requirements Planning (MRP) (3-0) 3 crs. Covers computer-based Material Requirements Planning (MRP) systems important to modern material management. Focuses on using MRP systems to reduce inventories, set priorities, initiate orders, initiate purchase requirements and develop master production schedules.
Prerequisite: SCM 122 or consent of program coordinator.
SCM 227 Just-in-Time (JIT) (3-0) 3 crs.
Provides a comprehensive study of the JIT philosophy/technique for improving manufacturing practices. Results in improved material flow systems, low inventories, improved manufacturing activities, increased capital turnover and maximized profits.

SCM 230 International Supply Chain Management (3-0) 3 crs. Provides a comprehensive study of the supply chain management function related to the international environment: business/cultural customs, legal considerations, purchasing strategies, financial aspects, international distribution and counter-trade.
Prerequisite: SCM 101 or consent of program coordinator.
SCM 259 Advanced Purchasing (3-0) 3 crs. Continues SCM 125. Emphasis is to be given to managerial aspects of purchasing, contract negotiation and administration and speculative purchasing.
Prerequisite: SCM 125.

## SCM 281 Topics in Supply Chain Management (1-0 to

 3-0)1-3 crs.
Studies selected problems or topics in supply chain management. The exact content and instructional methodology will vary semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be repeated to a maximum of six credit hours.
Prerequisite: Six (6) hours of SCM coursework (effective Spring 2012) or consent of program coordinator.

## SGN Sign Language

SGN 101 American Sign Language I (4-0)
4 crs.
Introduces the student to American Sign Language with emphasis on comprehension and production of basic language functions, grammatical structures and level-appropriate vocabulary. Presents information about the Deaf community and culturally appropriate behaviors. Designed for students with no previous experience in American Sign Language.

SGN 102 American Sign Language II (4-0)
4 crs.
Reviews American Sign Language vocabulary, language functions and grammatical structures presented in SGN 101. Integrates material previously presented in SGN 101 and further develops language comprehension and production skills at increasing levels of complexity. Applies increasingly complex grammatical structures to lanuage functions. Presents and integrates additional information about Deaf culture into language usage.
Prerequisite: SGN 101 with a grade of C or better, or consent of department chair.

SGN 103 Fingerspelling and Numbering Systems in American Sign Language (3-0)

3 crs.
Provides instruction in the rules of fingerspelling and numbering systems in American Sign Language. Students will have opportunities for practice in the development of expressive and receptive skills at increasing levels of complexity. Receptive skill development focuses on whole words and numbers in isolation, as well as reading fingerspelling and numbers embedded in signed sentences. Expressive skill development focuses on accuracy, fluency, clarity and speed.
Prerequisite: SGN 101 with a grade of C or better, or consent of department chair.

SGN 104 CASE: Signed English (1-0 to 3-0)
Provides instruction in conceptually accurate signed English and introduces students to deaf culture. Combines English grammatical structures with American Sign Language signs, initialized signs, fingerspelling and specific ASL linguistic principles. Designed for parents and teachers of the hearing impaired, other interested professionals and students preparing to enter the Sign Language Interpreting program. One Credit: Covers introduction to the manual alphabet and numbers 1-20, basic linguistic principles including signing space, sight line, sign parameters, Time Line and questions, and basic vocabulary skill development and introduces the student to deaf culture. Two Credits: Covers preceding content along with numbers 20-30, linguistic principles; negation, present and absent referents, person affix/agency, additional lexical items and information regarding myths and stereotypes and conversation regulators. Three Credits: Covers preceding content along with numbers 30-100, directional verbs, number incorporation, noun-verb pairs, classifiers, lexical development and cultural information, including the deaf community and deaf education.

SGN 201 American Sign Language III (4-0)
4 crs.
Reviews American Sign Language vocabulary, language functions and grammatical structures presented in SGN 102 and focuses on grammatical and lexical expansion with emphasis on idiomatic usage and socio-cultural communicative functions.
Prerequisite: SGN 102 with a grade of C or better, or consent of department chair.

SGN 202 American Sign Language IV (3-0) 3 crs
Reviews American Sign Language grammatical structures and lexical items presented in SGN 201. Focuses on conversational practice to develop expressive and receptive facility with the language. Includes culturally significant topics and interaction with members of the deaf community.
Prerequisite: SGN 201 with a grade of C or better, or consent of department chair.

SGN 205 American Sign Language V (3-0) 3 crs.
Provides an examination of the grammatical features of American Sign Language. Includes a contrastive analysis of English and ASL syntax and semantics. Further develops ASL discourse skills. Emphasizes ASL storytelling, analyzing, retelling, and translating ASL discourse. Designed for students interested or currently enrolled in the Sign Language Interpreting program.
Prerequisite: SGN 202 with a grade of C or better, or consent of department chair.

## SGN 210 American Sign Language: Cultural Perspective (4-0) <br> 4 crs.

Examines the history of American Sign Language, the emergence of the deaf community as a linguistic and cultural group, the cultural norms, values, traditions and rules of social behavior of the deaf community, minority dynamics and cross cultural interactions. IAI H1 900
Prerequisite: SGN 201 with a grade of C or better, or consent of department chair.

## SGN 212 Introduction to American Sign Language Literature (3-0) <br> 3 crs.

Explores American Sign Language literature as an expression of the lives of deaf people in America. Introduces the tradition of the deaf community within historical, social and cultural contexts in works of folklore, nonfiction, fiction, poetry and drama. Designed to increase students' knowledge, skills and appreciation of American Sign Language, deaf culture and deaf literature. Provides students with an appreciation of the diversity of American culture.
Prerequisite: SGN 205 with a grade of B or better, or consent of department chair.

## SOC Sociology

SOC 101 Introduction to Sociology (3-0) 3 crs.
Analysis and description of the structure and dynamics of human society. Application of scientific methods to the observation and analysis of social norms, groups, inter-group relations, social change, social stratification and institutions. IAI S7 900

SOC 120 The Family in Contemporary Society (3-0) 3 crs. Examines the family as a social institution and as a dynamic interactive system. Topics include courtship, marriage, family systems, parenting and non-traditional forms of the family. IAI S7 902

## SOC 205 Social Problems (3-0) <br> 3 crs.

Analysis of contemporary social problems. Investigation of theories dealing with conformity and deviance, racial and minority group prejudice, crime and delinquency, personality problems, urbanization and fundamental institutional problems due to social change. IAI S7 901
Prerequisite: SOC 101 with a grade of C or better.
SOC 210 Social Institutions (3-0)
3 crs.
Primary social institutions, including family, religious, educational, economic and political. Questions considered: who participates, what are the functions, what are the consequences, and an evaluation of the effects of the institutions on the society.

SOC 215 Introduction to Social Psychology (3-0) 3 crs. Introduces the methods used to understand, explain and predict how the thoughts, feelings and actions of individuals are influenced by the thoughts and actions of social groups. Investigates how attitudes, beliefs, and behaviors are influenced by others within society and how society is influenced by the individual. IAI S8 900
Prerequisite: PSY 101 or SOC 101 with a grade of C or better.
SOC 220 Topics in Social Science (1-0 to 6-0) 1-6 crs.
Studies selected problems or topics in social science. The exact content and instructional methodology will vary from semester to semester depending on the material to be studied. A syllabus or course outline containing additional information will be available with pre-registration materials each time that the course is offered. This course may be taken from one to six credit hours.

SOC 230 Sociology of Sex and Gender (3-0)
3 crs.
Examines the social processes in society which translate biological differences (sex) between men and women into social and psychological categories or gender roles. Various theories will be considered in an attempt to understand the existence of gender inequality and how the process of socialization influences the proper "place" for men and women in society. Gender roles and power are considered when analyzing the marketplace, politics, marriage and family, or in considering issues such as the feminization of poverty, violence in the home, and male sensitivity. IAI S7 904D
Prerequisite: SOC 101 with a grade of C or better.
SOC 235 Race and Ethnicity (3-0)
3 crs.
Examines differential power relations between racial and ethnic groups. Analyzes the economic, political, and cultural structures that produce and reproduce these power differences. Focuses on cultural diversity and various dimensions of prejudice and discrimination including an analysis of racial and ethnic inequality and its origins, and conditions under which these forms of inequality are (re)produced. IAI S7 903D
Prerequisite: SOC 101 with a grade of $C$ or better.

## SPA Spanish

SPA 101 Elementary Spanish I (4-0)
4 crs.
Develops basic communicative skills in listening, speaking, reading and writing Spanish to familiarize students with the knowledge of cultures and people of the Spanish-speaking world. This course is the first of a two-semester sequence of courses designed for students with no prior knowledge of Spanish. This course is not for native speakers.

SPA 102 Elementary Spanish II (4-0)
4 crs.
Continues to develop basic communicative skills in listening, speaking, reading and writing Spanish to expand students' knowledge of cultures and people of the Spanish-speaking world. This course is the second of a two-semester sequence. This course is not designed for native speakers. Two years of high school Spanish are recommended.
Prerequisite: SPA 101 with a grade of C or better, or consent of instructor.

SPA 112 Heritage Spanish I (4-0)
4 crs.
Examines the dialectal and sociolinguistic variation present in Spanish-speaking communities in the United States as well as in Spanish-speaking countries. Students will become cognizant of the linguistic strengths they possess, develop a sense of pride in their heritage by studying their language and culture and expand their ability to use Spanish in new applications and contexts. Examines the concept of standard Spanish and explores the situations in which standard and non-standard Spanish should be employed and how to adjust language usage accordingly. This course emphasizes the orthography, pronunciation and lexical expansion in formal Spanish. This course is intended for Hispanic heritage students who comprehend spoken Spanish and may have varying degrees of speaking and writing ability.

## SPA 113 Heritage Spanish II (4-0)

4 crs.
Examines the dialectal and sociolinguistic variation present in Spanish-speaking communities in the United States as well as in Spanish-speaking countries. This course is a continuation of SPA 112. Students will become cognizant of the linguistic strengths they possess, develop a sense of pride in their heritage by studying their language and culture and expand their ability to use Spanish in new applications and contexts. Examines the concept of standard Spanish and explores the social situations in which standard and non-standard Spanish should be employed and how to adjust language usage accordingly. This course emphasizes the study of formal grammatical aspects of Spanish. This course is intended for Hispanic heritage students who comprehend spoken Spanish and may have varying degrees of speaking and writing ability.

SPA 121 Spanish for Law Enforcement Officers (3-0) 3 crs. Teaches basic Spanish phrases and questions necessary to carry out specific law enforcement protocols. Students will be able to aid victims and control offenders in potentially dangerous situations involving Hispanics. Discussions cover cross-cultural issues pertinent to relationships between non-Hispanic officers and the Hispanic community members. It is strictly non-grammar based and the focus is on immediate interaction.

SPA 122 Spanish for Nursing (3-0) 3 crs.
Teaches basic Spanish phrases and questions necessary to provide medical care and attention to Spanish-speaking patients in medical office settings and in hospitals. In addition to workplace Spanish language, discussions cover cross-cultural issues pertinent to relationships between health care workers and Hispanic community members. Emphasis is placed on enhancing the quality of patient care. It is strictly non-grammar based and the focus is on immediate interaction.

## SPA 201 Intermediate Spanish (4-0)

4 crs.
Deepens the students' functional skills in comprehending, speaking, reading, and writing Spanish and provides an overview of Hispanic culture in various countries. This course begins the intermediate Spanish skills sequence and while reviewing the grammar at the elementary level, it extends the growth of communicative proficiency and furthers the understanding of Hispanic culture. Students will also be exposed to short pieces of Hispanic literature. This course is not designed for native speakers. Three years of high school Spanish are recommended Prerequisite: SPA 102 with a grade of C or better, or consent of instructor.

## SPA 202 Intermediate Spanish (4-0)

4 crs.
Deepens the students' functional skills in comprehending, speaking, reading, and writing Spanish and provides an overview of Hispanic culture in various countries. This course completes the intermediate Spanish skills sequence and while reviewing the grammar structures previously covered, it uses an integrated skills approach to extend the growth of communicative proficiency in Spanish and to develop the understanding of Hispanic culture. Students will analyze short pieces of Hispanic literature and will engage in a basic research project. This course is not designed for native speakers. Four years of high school Spanish are recommended. IAI H1 900
Prerequisite: SPA 201 with a grade of C or better, or consent of instructor.

SPA 205 Spanish Intensive Oral Practice (3-0)
3 crs.
Focuses on conversational practice to develop oral facility; specially designed exercises in pronunciation, stress and rhythm. Individual readings of modern Spanish works discussed in class. Written and oral compositions based on readings. Designed to help students bridge the gap between the intermediate and advanced levels.
Prerequisite: SPA 202 with a grade of C or better, or equivalent or consent of instructor.

SPA 210 Introduction to Modern Spanish Literature (3-0) 3 crs. Studies readings of selected 20th century masterpieces. Introduction to poetry. Oral readings stressing pronunciation and diction. Speaking based on discussion of works read. Writing based on readings and class discussions. Designed to help students bridge the gap between the intermediate and advanced levels. IAI H3 917
Prerequisite: SPA 202 with a grade of C or better, or equivalent or consent of instructor.

## SPE Speech/Theatre

SPE 101 Fundamentals of Speech Communication (3-0) 3 crs. Theory and practice of oral communications. Development of poise, confidence and skill in speech organization and delivery. Emphasis on frequent speaking, development of standards of criticism and selection and organization of material. IAI C2 900

SPE 102 Advanced Public Speaking (3-0) 3 crs.
Provides students with advanced practice of oral communication in public speaking and communication theory. Topics included are: an examination of informative, persuasive and special occasion speech preparation and delivery; effective use of visual aids; analysis of communication events and the effects of communication messages.
Prerequisite: SPE 101 with a grade of C or better, or consent of instructor.

SPE 107 Oral Interpretation (3-0)
3 crs.
Provides the student an opportunity to select, prepare and perform various types of literature. Emphasizes the use of body and voice in oral reading. IAI TA 916

SPE 111 Introduction to the Theatre (3-0) 3 crs. Introduces theatrical and dramatic art. Emphasis on providing the student with the tools of analysis which give him or her insight into the total imaginative process that makes up the art of the theatre. IAI F1 907

SPE 121 Ethnic Traditions in American Theatre (3-0) 3 crs. Examines how cultural perspective and minority expression shape theatre in the United States by exploring the roots of change in traditional theatre and the role of community in the formation of theatre companies. Specific focus will be given to African American theatre, Asian American theatre, Latino theatre, Native American theatre, feminist theatre, gay and lesbian theatre, political theatre, performance art and post-modernism as well as international trends. IAI F1 909D

SPE 180 Applied Forensics I (0-2) 1 cr.
Provides practical experience in the preparation of public speeches, oral interpretation programs, acting scenes, group performances and/or limited preparation speaking situations for public presentation in forensics/speech competition.

SPE 181 Applied Forensics II (0-2)
Continues SPE 180. Provides practical experience in the preparation of public speeches, oral interpretation programs, acting scenes, group performances and/or limited preparation speaking situations for public presentation in forensics/speech competition.
Prerequisite: SPE 180 with a grade of C or better.
SPE 182 Applied Forensics III (0-2) 1 cr.
Continues SPE 181. Provides practical experience in the preparation of public speeches, oral interpretation programs, acting scenes, group performances and/or limited preparation speaking situations for public presentation in forensics/speech competition.
Prerequisite: SPE 181 with a grade of C or better.

SPE 183 Applied Forensics IV (0-2)
Continues SPE 182. Provides practical experience in the preparation of public speeches, oral interpretation programs, acting scenes, group performances and/or limited preparation speaking situations for public presentation in forensics/speech competition.
Prerequisite: SPE 182 with a grade of C or better.

## SPE 190 Applied Theatre Practicum I (0-2)

Provides practical experience in directing, acting, costuming, scene design, lighting and repertory.
Prerequisite: Consent of instructor.
SPE 191 Applied Theatre Practicum II (0-2)
1 cr.
Continues SPE 190. Provides practical experience in directing, acting, costuming, scene design, lighting and repertory.
Prerequisite: SPE 190 with a grade of C or better and consent of instructor.

SPE 192 Applied Theatre Practicum III (0-2) 1 cr.
Continues SPE 191. Provides practical experience in directing, acting, costuming, scene design, lighting and repertory.
Prerequisite: SPE 191 with a grade of C or better and consent of instructor.

SPE 193 Applied Theatre Practicum IV (0-2) 1 cr. Continues SPE 192. Provides practical experience in directing, acting, costuming, scene design, lighting and repertory.
Prerequisite: SPE 192 with a grade of C or better and consent of instructor.

SPE 200 Interpersonal Communication (3-0) 3 crs. Studies the nature and scope of interpersonal communication. Equips the student to manage the challenges of daily, one-onone communication. Includes the study of identity and self as they relate to communication theory and practice as well as communication behaviors associated with the development, maintenance and termination of different types of relationships. Emphasis will be placed on practical communication skills such as listening, perception, language and nonverbal communication.

## SPE 205 Group Discussion (3-0)

3 crs.
Provides experiences and introduces students to the principles, techniques and types of group discussion including roles, goals, cohesiveness, listening, problem-solving, leadership and conflict.

SPE 212 Acting I (3-0)
3 crs.
Methods used in the art of acting; stress on practical acting situations. IAI TA 914

## SPE 213 Acting II (3-0)

3 crs.
Continue the development of acting skills introduced in SPE 212. Helps the student develop a believable character through play analysis and scene study. Introduces the student to acting styles. Prerequisite: SPE 212 with a grade of C or better and consent of instructor.

## SPE 216 Stagecraft (0-6) <br> 3 crs.

Emphasizes the technical processes of the stage. Includes stage structures and scenery, construction processes, lighting theory and practices, costuming and related equipment and hardware. Laboratory work will be correlated with the College's theatrical productions. IAI TA 911

## WEB Web Development

WEB 101 Internet Fundamentals (0.5-1)
1 cr.
Introduces the student to the capabilities of the Internet and the World Wide Web through the use of currently popular software packages. Student must have working knowledge of the Microsoft Windows environment prior to registration.

WEB 150 Web Development I (2-2)
3 crs.
Introduces the student to creating web pages utilizing HTML5 and Cascading Style Sheets (CSS). Topics include Web design best practices, web site hosting, Internet protocols, graphics, media, security, and e-commerce concepts. Students utilize the skills learned to create a web site project of their choice and design. Recommended preparation: CIS 101, GRA 101 or equivalent experience.

## WEB 170 Web Graphics (2-2)

3 crs.
Provides an introduction to creating, manipulating, and implementing bitmapped and vector based graphics in multimedia applications and web pages. Currently popular graphics applications will be used.
Prerequisite: WEB 150 with a grade of C or better.
WEB 180 Web Multimedia (2-2)
3 crs.
Builds on web development skills learned in WEB 150 with a focus on configuring multimedia for the Web, including video, audio, and animations. A popular web animation tool will be utilized. Students utilize the advanced skills learned to create a business-oriented web site of their choice and design.
Prerequisite: WEB 150 with a grade of $C$ or better.
WEB 185 Motion Graphics and Effects (2-2) 3 crs. Provides a foundation in a popular motion graphics application. Uses animation, visual and special effects and motion graphics tools to output images and video sequences for the Web. Works with elements such as text and object animations, images, audio and effects, tracking, layer, keyframes, masks and the timeline to develop a solid foundation. Recommended preparation: WEB 180 or equivalent experience.

WEB 190 Web Authoring Tools (2-2)
3 crs.
Builds on web development skills learned in WEB 150. This course provides an introduction to a currently popular web authoring tool. Unique features of the authoring tool will be utilized.
Prerequisite: WEB 150 with a grade of C or better.
WEB 200 Web Development II (2-2)
3 crs.
Builds on web development skills learned in WEB 150.
Emphasizes the development of interactive web pages using JavaScript, Cascading Style Sheets (CSS), and HTML. Students utilize the advanced skills learned to create a business-oriented web site of their choice and design.
Prerequisite: WEB 150 with a grade of $C$ or better AND math placement in MTH 101 or higher.
WEB 210 Web Accessibility (2-2)
3 crs.
Provides the student with the foundation to develop useable and accessible web sites. Topics include Section 508 Accessibility compliance, the Web Accessibility Initiative guidelines, usability testing, and applications that test for adherence to coding syntax and accessibility recommendations.
Prerequisite: WEB 150 with a grade of C or better.
WEB 235 Interactive Scripting (2-2)
3 crs.
Builds on web development skills learned in WEB 200. Uses advanced JavaScript techniques which include jQuery and Ajax to create highly functional web pages. Students utilize the advanced skills learned to create a business-oriented web site of their choice and design.
Prerequisite: WEB 200 with a grade of $C$ or better.
WEB 240 E-Commerce Development (2-2)
3 crs.
Provides the student with a foundation in the fundamentals of electronic commerce development. Software, hardware, security, payment systems, promotion and support strategies, Electronic Data Interchange, web auctions, international issues, legal implications, ethical issues, and taxation are among topics covered in a lecture and lab-based format. Students must have working knowledge of the Microsoft Windows environment and the Internet prior to registration.

WEB 250 Server-Side Scripting (2-2)
3 crs.
Provides an introduction to server-side scripting and web data access using a currently popular server application platform and relational database. Includes variables, control structures, functions, arrays, files, and databases. Creates a data-driven web application that uses Structured Query Language (SQL) to access and update information in a database.
Prerequisite: CIS 143 and WEB 150 with grades of $C$ or better.
WEB 299 Web Management Capstone (2-2) 3 crs.
Applies and integrates skills from previous web courses as students work in groups to develop a web site while addressing topics integral to web management including web servers, establishing a presence on the web, web server configuration, and using server-side scripts. Project management issues and system development life cycle methodologies are discussed and practiced.
Prerequisite: WEB 190 and WEB 200 with grades of $C$ or better.

## WLD Welding Technology

WLD 110 Welding I (1-4)
3 crs.
Covers fundamentals of oxyacetylene welding theory and practices and beginning electric welding. Includes arc welding and gas welding, brazing and cutting in the horizontal position.
WLD 210 Welding II (1-4) 3 crs.
Covers advanced welding theory and practice in arc welding.
Provides experience in MIG and TIG (Heliarc) techniques.
Includes an introduction to strength of weld testing.
Prerequisite: WLD 110 with a grade of C or better, or consent of instructor.

WLD 211 Welding III (2-4)
4 crs.
Covers advanced welding theory and extensive practice in major arc welding process. Provides experience in advanced GMAW (gas metal arc welding), FCAW (flux cored arc welding), GTAW (gas tungsten arc welding) and other arc welding techniques. Plasma arc and air carbon arc cutting will be included.
Prerequisite: WLD 210 with a grade of C or better, or consent of program coordinator.

## WLD 212 Welding IV (2-4)

4 crs.
Covers advanced out-of-position and multi-pass arc welding including GMAW (gas metal arc welding), SMAW (shielded metal arc welding) and GTAW (gas tungsten arc welding). Emphasizes working from blueprints and development of welding skills necessary to pass welder qualification tests. Students must pass guided bend tests to become "certified welders" in accordance with the AWS (American Welding Society) D1.1 Structural Welding Code.
Prerequisite: WLD 211 with a grade of C or better, or consent of program coordinator.

## WLD 225 Advanced Blueprint Reading (1-2)

2 crs.
Teaches the student to become proficient in reading more complex welding blueprints. The student will learn the symbols specific to welding blueprints. Emphasizes developing the ability to transfer the two-dimensional print to the actual threedimensional object.
Prerequisite: MNT 111 and WLD 210 with grades of C or better.

## WLD 240 Cutting Processes (1-4)

3 crs.
Allows the student an opportunity to gain proficiency in all major industrial arc, oxy-fuel, and mechanical cutting processes-manual, semi-automatic and automatic. Processes include Plasma Arc, Air Carbon Arc, Shielded Metal Arc, Exothermic, and Oxy-Fuel cutting; optical tracers; and CNC controls.
Prerequisite: WLD 210 with a grade of C or better.

WLD 245 Welding Fabrication I (2-4)
4 crs.
Provides hands-on experience constructing welding projects employing arc, oxy-acetylene, gas metal arc (mig), gas tungsten arc (tig), or a combination of these welding processes using a welding blueprint as a guide.
Prerequisite: WLD 211 and WLD 240 with grades of C or better.
WLD 246 Pre-Pipe Welding (2-4) 4 crs.
Covers advanced skills in shielded metal arc welding using the E6010 and E7018 electrodes on mild steel plate up to $3 / 8$ " thickness in all positions.
Prerequisite: WLD 210 with a grade of C or better.
WLD 248 Basic Pipe Welding (2-4)
4 crs.
Covers techniques of basic pipe fitting, use of 90 's, T's, flanges, valves, take offs, use of pipe blueprints, sketches, templates, and uphill welding techniques on pipe. Perform SMAW pipe welding with E6010 and E7018 electrodes in all positions.
Prerequisite: WLD 210 and WLD 246 with grades of C or better.
WLD 249 Applied Welding Theory (1-4)
3 crs.
Provides both lab and classroom experience to cover the basic theory of all major welding processes. Covers shielded metal arc welding, gas tungsten arc welding, flux core arc welding, submerged arc welding, plasma arc welding and oxyacetylene welding.
Prerequisite: WLD 210 with a grade of C or better.
WLD 250 Welding Fabrication II (2-4) 4 crs.
Prepares the student to construct welding projects employing arc, oxyacetylene, gas metal arc (MIG), gas tungsten arc (TIG), or any combination of these welding processes using a welding blueprint as a guide. Covers advanced fabrication techniques including rolling, forming and bending.
Prerequisite: WLD 211 and WLD 245 with grades of C or better.
WLD 253 Welding Power Sources (1-4)
3 crs.
Familiarizes the student with the difference between types of welding power sources. The student will learn through lab experiences the proper set-up and fine-tuning techniques which will result in a quality weld. Covers selection, use, troubleshooting and maintenance of major welding equipment.
Prerequisite: WLD 210 with a grade of C or better.
WLD 260 Arc Welder Qualification (1-6)
4 crs.
Helps the student attain arc (SMAW) welder qualification (certification) as required by many employers. This certification will meet the requirements of the AWS (American Welding Society) D1.1 Structural Welding Code. Upon successful completion of the certification exam, the student will be given a copy of their test results (Welding Procedure Qualification.)
Prerequisite: WLD 210 with a grade of C or better.
WLD 261 Mig Welder Qualification (1-6) 4 crs.
Helps the student attain mig (GMAW) welder qualification (certification) as required by many employers. This certification will meet the requirements of the AWS (American Welding Society) D1.1 Structural Welding Code. Upon successful completion of the certification exam, the student will be given a copy of their test results (Welding Procedure Qualification.)
Prerequisite: WLD 210 with a grade of C or better.
WLD 285 Topics in Welding Technology (1-0 to 3-6) 1-6 crs. Examines selected problems or topics in welding technology. The specific course content and instructional methodology will vary each semester offered depending on the material presented. A syllabus containing specific topic information will be available in the division office with pre-registration materials each time the course is offered. This course may be repeated to a maximum of 6 credit hours.
Prerequisite: Consent of instructor.

## HCB Harper College for Business

HCB 8121 Introduction to Local Area Networks (2-2) 3 crs. Provides students with a comprehensive introduction to local area networks. Includes OSI model, media, topologies, protocols, network maintenance, upgrades, troubleshooting, and current network operating systems.

## HCB 8122 Internet Protocols (TCP/IP) (2-2)

3 crs.
Provides students with a detailed examination of internet addressing and protocols. Includes IP addressisng, routing, IP, ICMP, ARP, TCP, UDP, DHCP, DNS, HTTP, FTP, and SMTP. Uses protocol analyzers to monitor and examine network traffic.

## HCB 8125 Cisco Networking CCNA (4-4)

6 crs.
Provides students with experience configuring Cisco routers and switches for a variety of tasks, including IOS basics, router configuration, routing protocols, NAT, access lists, WAN settings, switching and VLANs, IPv4 and IPv6 addressing.

## HCB 8135 Autocad Essentials (0-4) <br> 2 crs.

Provides students with a comprehensive introduction to AutoCAD essentials. Includes creating a simple drawing, making drawings precise, drawing organization and information, creating more complex objects, annotating your drawing, creating and organizing blocks, drawing setup and utilities, advanced object types, advanced blocks and attributes, referencing and sharing information, and drawing standards and system setup.

## HCB 8160 Basic Supervisory Skill Development (0.5-0 to 3-0) <br> 0.5-3 crs.

Studies selected problems or topics in supervisory management. Introduces the responsibilities of the first or second echelon supervisor in either the industrial or administrative environment. Leadership qualities, human relations skills, motivation, communications, training techniques, and problems of the work group are discussed.

HCB 8175 Business Image and Etiquette (0.5-0 to 3-0)
0.5-3 crs.

Provides students with the knowledge of how a professional image and good manners affect interpersonal relationships in the workplace. They will recognize the importance of first impressions and learn to manage themselves in a professional manner.

HCB 8180 Customer Service, Customer Loyalty (0.5-0) 0.5 crs. Delivers the strategies and skills professionals need to be more effective in virtually every aspect of customer service planning and execution. Program will enable service people to be skilled, practiced, motivated and prepared in all customer contact.

HCB 8182 Effective Business Writing (0.5-0) 0.5 crs.
Delivers the strategies and skills professionals need to be more effective in every aspect of business writing. Enables business people to be skilled, practiced, motivated and prepared in all writing that pertains to business interactions.

## HCB 8184 Teambuilding (0.5-0)

0.5 crs.

Delivers the strategies and skills professionals need to be more effective in aspects of teambuilding. Enables business people to be skilled, practiced, motivated and prepared to work as members of effective teams.

HCB 8185 Interviewing Skills (0.5-0)
0.5 crs.

Builds the skills to plan and conduct interviews to elicit information needed to make sound hiring decisions.

HCB 8186 Customer Service Excellence (0.5-0) 0.5 crs. Delivers the strategies and skills customer service professionals need to provide excellence in every customer interaction. In this interactive workshop, participants will explore reasons why customer service is critical and will practice listening and positive communication skills.

HCB 8190 Integrity Service (1.5-0.5)
2 crs.
Provides tools and skills to build and manage professional customer relationships more effectively, gain insight into business needs through effective communication and interpersonal skills, learn behaviors that demonstrate the value of customers as trusted business partners, and manage customer expectations more effectively regarding the delivery of solutions.
HCB 8192 Communication Skills (0.5-0 to 3-0) 0.5-3 crs.
Provides an overview of effective business communications. Focuses on practical experience in the preparation and delivery of oral and written communications. Emphasizes the importance of active listening and effective body language. Reviews proper etiquette in the use of email and other forms of written communication and in meetings.

## HCB 8194 Presentation Skills (0.5-0) <br> 0.5 crs .

Studies selected problems or topics in presenting information to others. Introduces the concepts of presenting in both informal and formal settings in a clear and concise manner.

HCB 8221 Wireless Networking (2-2)
3 crs.
Provides students with a comprehensive hands-on overview of wireless networking. Includes radio frequencies, wireless infrastructure, hardware, wireless standards, wireless LAN security, site surveys, and troubleshooting.

HCB 8222 Data Communications-Convergence+ (2-2) 3 crs. Provides students with an introduction to telecommunications and data convergence. Topics include legacy telecommunications, voice telephony, public-switched telephone networks, data networking, Voice Over IP, quality of service and wireless communications.

HCB 8280 Network Security Fundamentals (2-2) 3 crs. Provides students with a comprehensive hands-on overview of network security including authentication, encryption, digital certificates, perimeter topologies, remote access, cryptography, and operational security.

## HCB 8301 ESL: Workforce Language Skills I (1-0 to 6-0) <br> $1-6 \mathrm{crs}$.

Focuses on grammatical structures and patterns of English
for high beginning English as a Second Language students.
Emphasizes communicative activities. Includes listening, speaking, reading and writing skills.

HCB 8302 ESL: Workforce Language Skills II (1-0 to 6-0)

1-6 crs.
Continues grammatical structures and patterns of English for high beginning English as a Second Language students. Emphasizes communicative activities. Includes listening, speaking, reading and writing skills. Students must take a placement test prior to enrollment.

## HCB 8303 ESL: Workforce Language Skills III (1-0 to 6-0) <br> 1-6 crs.

Focuses on increasingly complex grammatical structures and patterns of English for intermediate English as a Second Language students. Emphasizes communicative activities. Includes listening, speaking, reading and writing skills. Placement exam required.
HCB 8304 ESL: Workforce Language Skills IV (1-0 to 6-0)
$1-6 \mathrm{crs}$.
Continues increasingly complex grammatical structures and
patterns of English for intermediate English as a Second Language students. Emphasizes communicative activities. Includes listening, speaking, reading and writing skills. Placement exam required.

## HCB 8305 ESL: Workforce Language Skills V (1-0 to 6-0)

1-6 crs.
Focuses on increasingly complex grammatical structures and patterns of English for high intermediate English as a Second Language students. Emphasizes communicative activities. Includes listening, speaking, reading and writing skills. Placement exam required.

## HCB 8306 ESL: Workforce Language Skills VI (1-0 to <br> 6-0) 1-6 crs.

Continues complex grammatical structures and patterns of English for high intermediate English as a Second Language students. Emphasizes communicative activities. Includes listening, speaking, reading and writing skills. Placement test required.

## HCB 8452 Imports and Exports (0.5-0)

0.5 crs .

Provides a conceptual overview of the world marketing environment with emphasis on both global exporting and importing. Introduces students to marketing strategies and procedures to capitalize on domestic and overseas world trade potential.

HCB 8501 Occupational Spanish (1-0 to 4-0) 1-4 crs. Studies selected problems or topics in Spanish as it relates to specific occupations. Includes three components: speaking in Spanish, listening in Spanish, and Latino culture. Introduces pronunciations of practical common phrases and questions in Spanish, comprehension of many basic and common expressions and phrases used in everyday Spanish. Also teaches some fundamental and generic and non-nationality specific aspects of Latino culture.

HCB 8503 Occupational German (1-0 to 4-0) $1-4$ crs.
Studies selected problems or topics in German as it relates to specific occupations. This course is divided into three components: speaking in German, listening in German, and German culture. Introduces pronunciation and comprehension of practical common phrases and questions used in the German language.

HCB 8601 Basic Welding (1-4) 3 crs.
Covers fundamentals of oxyacetylene welding theory practices and beginning electric welding. Includes arc welding and gas welding, brazing and cutting in the horizontal position.

## LAH CE Allied Health

## LAH 8004 Med Cm/Pcs Bootcamp (1-0)

1 cr.
Updates students to the new ICD-10 guidelines to be in place in October 2013. Reviews codes, anatomy and disease processes. Provides overview of expansions, revisions and guidelines changes effective with the transition to ICD-10.

LAH 8010 Pharmacy Technician (3.5-0) 3.5 crs. Provides students with a comprehensive introduction to the duties of pharmacy technicians. Includes overview of pharmacy measures, major classes of drugs, regulatory agencies and requirements, different pharmacy settings, IV solutions, retail operations, calculating doses, and sterile techniques.

## LAH 8015 Physical Therapy Aide (3.5-0)

3.5 crs. Provides students with a comprehensive introduction to the duties of physical therapy aides. Includes evolution of physical therapy and an overview of ethical and legal issues, basic anatomy and the musculoskeletal system, range of motion, ambulation, strengthening exercises, direction of movement, patient position and transfer, and common anatomical issues.

## LAH 8020 Sterile Processing Technician Exam Preparation

 (2-0)2 crs.
Prepares students for the Sterile Processing and Distribution
Technician Certification Exam. Includes review of human anatomy and physiology and sterile technician roles and responsibilities. Provides overview of principles of microbiology, infection control and methods of decontamination. Reviews instruments, packaging, storage and distribution.

LAH 8025 Phlebotomy Refresher (1-0)
Provides review of blood draw skills and optimizing blood specimens. Includes skin punctures, venous and arterial samples, drawing difficult samples, vacutainer order of draw, and special considerations. Practice sticks on course participants. Recommended preparation: formal phlebotomy or healthcare training or be currently employed in a healthcare setting.

LAH 8101 Professional Caregiver (1-0.5)
Teaches the universal worker skills for assisted, sheltered or skilled communities, and home health individuals or agencies. Discusses holistic health, physical and cognitive function, the importance of incorporating recreational activities and cultural change.

LAH 8235 Local Anesthesia in Dentistry (2-4)
2.5 crs.

Includes 24 classroom hours and 8 clinical hours where each participant will administer and receive a minimum of 27 injections. Dental hygienists successfully completing this 32 -hour program will be able to administer local anesthesia as permitted by the Illinois Dental Practice Act.

## LAP CE Comp TIA

LAP 8002 COMPTIA Network+ (2.5-1)
3 crs.
Teaches planning, installation, and troubleshooting of networks in a business environment. Includes the OSI model, network card configurations, diagnosing network problems, and handson practice setting up a network environment. Must have A+ certification or equivalent prior to enrollment.

LAP 8008 COMPTIA A+ Technician (1.5-2)
2.5 crs.

Provides hands-on training in PC installation, building, upgrading, repairing, configuring and troubleshooting. Prepares students for A+ certification exams which can lead to a career in PC repair, help desk support or studies in advanced technologies.

LAP 8010 COMPTIA Security + (2-1) 2.5 crs.
Provides vendor-neutral instruction on systems security, network infrastructure, access control, risk mitigation, cryptography, and organizational security. Covers workstation and server security, network vulnerabilities, risk assessments, monitoring tools, network security tools, authentication, rights and privileges, encryption, and disaster recovery. Helps prepare for the CompTIA Security+ certification.

## LAP 8011 COMPTIA Advanced Security Practitioner

Provides in-depth study of advanced security concepts, principles, and implementations that pertain to enterprise-level security. Explores enterprise security architecture and technologies, risk management, research analysis, and integration of computing, communications and business disciplines. This course is intended for an IT professional with 5 to 10 years experience in an IT environment and with the skills required to conceptualize, design and engineer secure solutions across complex enterprise environments. Recommended Preparation: LAP8008, LAP8002 and LAP8010. CompTIA A+, Network+ and Security+ certification or equivalent experience.

## LBS CE Business Solutions

## LBS 8000 Lean Six Sigma Green Belt (2.5-1)

3 crs.
Provides an overview of Lean Six Sigma methodologies using Define, Measure, Analyze, Improve and Control techniques. Analyzes situations using MiniTab software. Encompasses all aspects of business including management, service delivery, design, production and customer satisfaction. Drives the execution of key processes. Recommended preparation: MS Word, MS Excel, high school graduate or GED, basic understanding of math functions, 12th grade reading level.
LBS 8001 Exploring a Career in Human Svcs (3-0) 3 crs. Covers history and philosophy of human services; function and orientation of human services agencies and institutions; career opportunities and qualifications at various entry levels of human services employment. Includes opportunities for volunteer and/ or shadowing experiences to help students better understand the human services arena.

## LBS 8004 Association Management (3.5-0) <br> 3.5 crs.

Provides students with a comprehensive perspective on association management. Includes the roles associations have within the industry, profession, and society. Describes the governance and organizational units, membership, importance of volunteers, and how to develop leadership potential.

## LBS 8010 Intro to Accounting (3-0) 3 crs.

Provides students with a foundation in fundamental accounting procedures using the accounting cycle for both service and merchandising businesses, including adjustments, preparation of financial statements and closing procedures. Includes reconciliation of bank statements, petty cash and examination of fraud and internal controls. Is intended for students planning to take only one semester of accounting or for those who need preparation before enrolling in ACC101 or LBS8011.

## LBS 8011 Financial Accounting Basics (4-0)

 4 crs. Presents accounting as an information system that produces summary financial statements primarily for users external to a business. Emphasizes the reporting of the effect of transactions and other economic events on the financial condition and operating results of a business. Includes basic accounting concepts, financial statements, accrual and cash basis, the accounting cycle, monetary assets, inventories, fixed assets, current and long-term liabilities, and owner's equity. Assumes a corporate form of organization.LBS 8110 Introduction to Quickbooks (0.5-1) 1 cr. Provides students with an overview of the QuickBooks software application. Applies accounting principles and manages accounting records like those used in small businesses.
Prerequisite: Prerequisite: ACC 100 or ACC 101 or LBS 8010 or LBS 8011, or concurrent enrollment in one of these courses.

LBS 8111 Business Organization (3-0)
3 crs.
Introduces the nature of business and the environment in which it operates. Includes forms of business ownership, introduction to operative and facilitating facets of business operation, management, marketing, accounting, statistics, business law, finance, investments, insurance, and labor-management relations.

LBS 8130 Transportation Safety I (3-0)
3 crs.
Introduces the responsibility of shippers, corporate entities, supervisors, material handlers and drivers to design and implement programs and policies that correct identified deficiencies to ensure safety compliance. Teaches how to administer drug and alcohol programs that meet federal requirements. Covers the development of programs to address issues of Comprehensive Safety Analysis (CSA).

LBS 8135 Transportation Safety II (3-0) 3 crs. Introduces issues of transportation as they relate to insurance, cargo security and securement, vehicle inspection and maintenance, and warehouse material handling and storage. Teaches concepts of liability issues and mitigation strategies; legal weights and dimensions, oversized/overweight routing and permits, and theft reduction. Examines proper vehicle inspection techniques and the identification of unsafe vehicle components and material handling equipment; proper storage including hazardous materials, food grade products, and overhead storage issues; and proper goods movement documentation.

LBS 8155 Intro to Payroll Accounting (2-0)
Explains the preparation of payroll records including tax returns for old age benefits and employment insurance.
Prerequisite: ACC 100, ACC 101, LBS 8010 or LBS 8011
LBS 8245 Marketing Concepts (3-0)
3 crs.
Focuses on marketing activities that will cover product planning, pricing strategies and promotional efforts including advertising, selling, sales promotions and distribution channel effectiveness.

## LCE CE Career Exploration

LCE 8003 Professional Meeting/Event Planning (1.5-0) 1.5 crs.
Explores roles and responsibilities, budgets, program planning, speakers, site inspection, site selection, negotiations and contracts, risk management issues, marketing, exhibits, sponsorship, registration, transportation, catering, audiovisual, technology and legal issues.

LCE 8006 Veterinary Assistant (5-3) 6 crs.
Prepares students to work at an entry-level position in a veterinary hospital. Includes veterinary clerical responsibilities, diagnostics, pharmacy, patient treatment, overview of surgery, anesthesia and emergency care, all within the scope of the law. Each topic includes a required clinical practicum at an area veterinary facility; competencies must be demonstrated prior to clinical placement and a preliminary interview is conducted onsite. Students must be at least 18 years old, high school graduate/GED, and proficient in reading, writing, and math. Attendance at an information session is mandatory; background checks and insurance will be discussed.

LCE 8008 Private Investigation Training (1-0.5)
1 cr .
Develops investigative and research techniques for pursuing a career as a private investigator. Includes professional surveillance, legal guidelines, missing persons and research regarding the most common encountered types of investigations. Taught by a licensed professional, this course satisfies IDPR requirements. Successful students are qualified and eligible to apply for the Permanent Employee Registration Card (PERC), the first step to becoming a licensed private investigator.

## LCE 8009 Professional Wedding Consultant (1-0)

Provides information about negotiations, contracts, vendors, etiquette, wedding insurance, décor, destination or theme weddings, and cultural protocol. Provides marketing information for both self and business. Includes the completion of a project portfolio.

LCE 8016 Truck Driver Training (3-9)
7 crs.
Includes classroom, yard, and over-the-road experience leading to a Class A license. Includes 40 hours of classroom instruction and 120 hours of yard and road skills in a four-week program. Students must attend a mandatory orientation session prior to beginning the course. (Note: Yard and road skills are conducted at Eagle Training Services, Lake in the Hills, IL)

LCE 8017 Truck Driving Tanker Training (1-1) 1 cr.
Provides students with a comprehensive study of tanker truck operations. Includes over the road training and observation as well as specific issues and requirements. NOTE: Students must hold a valid Commercial Driver's license (CDL).

## LCE 8018 CdI: Train the Trainer (2-0)

Fulfills the national on-going need for Commercial Driver's Licensed Class A drivers. Includes curriculum and teaching model as a standard template of best practices for CDL training, FMCSA regulations, use of double trailers and hazmat endorsement.

## LCE 8019 Library Assistant (2-0)

2 crs.
Teaches library organization and operations. Provides an overview of how to order, process, catalog, locate and circulate library materials. Includes conflict resolution and customer service. Provides insight into library automation systems and how library departments interact to meet patron needs. Showcases skills with a completed portfolio. Recommended preparation: Basic keyboarding skills and familiarity with both Microsoft Word and the internet.

## LCI CE Cisco

LCI 8001 Cisco CCNA Network Specialist (0-0 to 2-1) 0-2.5 crs. Introduces standard networking terms, concepts and devices. Focuses on the selection, connection, configuration and troubleshooting of Cisco switches and routers as they are commonly used in small- to medium-sized networks. Helps students prepare for the CCNA certification exams. Must have Comp TIA Network+ training or equivalent experience prior to enrollment.

## LCI 8002 Implement Cisco IOS Security (2-1) 2.5 crs.

 Teaches installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Illustrates technologies that Cisco uses in its security structure.
## LCI 8003 Cisco Wireless Networking (2-1) 2.5 crs.

Teaches students the information and practice activities to help design, install, configure, monitor and conduct basic troubleshooting tasks for a Cisco WLAN in SMB and Enterprise installations. Recommended preparation: Cisco CCNA.
LCI $\mathbf{8 0 0 4}$ Cisco Voice Over IP (2-1)
2.5 crs .

Teaches students Unified Communication concepts, component definition and high level designs. Covers implementation and configuration of small to medium-sized IP Telephony solutions. Recommended preparation: Cisco CCNA.

## LCS CE Career Stimulus

## LCS 8001 Networthing I (0.5-0.5)

0.5 crs.

Assists students in finding insight into him or herself and his or her career goals and explains how those goals can be achieved through the process of career assessment and learning networking skills. Teaches job search approach from the positive perspective, gives students a comprehensive introduction to personal development elements of the job search. Encourages students to examine their attitudes, skills, and barriers and to develop an awareness of their strengths and strategies needed in mounting a successful job search. Includes understanding of critical elements including Emotional Intelligence; communication theory and styles; networking; and personal development including stress, professional appearance, self-care and time management.
LCS 8002 Networthing II (0.5-0.5) 0.5 crs. Continues instruction on career goals and networking skills, delving into more advanced concepts. Teaches additional job search approaches and provides students a comprehensive overview of personal development elements within the job search. Encourages students to examine their attitudes, skills, and barriers and to develop an awareness of the strengths and strategies needed to mount a successful job search. Demonstrates methods and tools of networking and accountability groups.

## LCT CE Computer Training

## LCT 8036 Photoshop (1-0.5) <br> 1 cr .

Covers program interface, documentation navigation, application preferences setup, practical application of basic tools, layers and channels usage, selections, resolution, color spaces, file type/ formats, and image modes. Includes Photoshop's extensive color manipulation settings, the pen tool, layer styles and bitmaps and duotones. Students should have general computer experience (daily usage), and Introduction to OSX or Introduction to Windows.

LCT 8040 Indesign (1-0.5)
Covers creation-adding/deleting pages, adjusting layouts, working with text boxes and the type tool-importing text, linking text boxes, text and paragraph formatting and styles, working with pictures and frames-importing pictures, text wrap, changing frame and content size, the links palette, working with shapes and color, use of the transform tools, working with document guides, tables, templates and master pages. Students need a strong background in Mac or PC usage and experience with word processing program recommended.

## LCT 8055 Illustrator (1-0.5) <br> 1 cr.

Develops skills in using the tool palette, color and image creation, and other features of Adobe Illustrator. Enhances documents created in Quark by working with paint effects, type, perspective drawing and creating artwork for the web. Strong Mac or PC skills and a previous computer graphic arts course such as QuarkXpress, is advised.

LCT 8071 Quarkxpress (1-0.5)
Demonstrates how to use palettes and how to set-up documents for printing. Teaches how to create master pages, develop style sheets, apply paragraph formats to documents, set tabs, wrap text, and use short cut keys. Includes how typeface and type styles are used, file formats and Quark document conversion to an EPS format. Strong MAC or PC experience and excellent mouse skills required.

## LCW CE Certified Webmaster

LCW 8300 iPhone Applications Development (1-2) 2 crs.
Provides in-depth study of the design, development and publication of object-oriented applications for the iPhone and iPad touch platforms using the Apple SDK. Explores ObjectiveC and multiple SDK frameworks to build iPhone and iPad touch applications under the Macintosh Operating System. Recommended preparation: LCT 0290, LCT 0193. Some programming and web development experience required. Knowledge of HTML and Object-Oriented Programming beneficial.

## LCW 8301 iPhone Application Development Advanced

 (1-1)1.5 crs.

Provides continued study of the design, development and publication of object-oriented applications for the iPhone and iPad touch platforms using the Apple SDK. Examines good design principles, reading and writing application data, working with rich media, database and HTML integration, and Java Hooks. Recommended Preparation: LCW8300. Knowledge of HTML and Object-Oriented Programming.

## LDD CE Career Skills Institute

## LDD 8001 Career Skills Institute (9-0)

9 crs.
Provides an educational experience for students with mild cognitive disabilities. Includes instruction in self-advocacy, fundamentals of reading and arithmetic of whole numbers. Builds skills that will later be used in the workplace.

LDD 8002 Career Skills Institute II (9-0)
9 crs.
Provides an educational experience for students with mild cognitive disabilities. Includes instruction in English Composition, Computers in the Workplace, and Workplace Communication. Builds skills that will later be used in the workplace.

## LED CE Employee Development

LED 8100 Shared Governance ( $0.5-0$ to $2-0$ ) $0.5-2$ crs.
Provides students with a comprehensive introduction to shared governance. Includes the historical evolution of shared governance, best practices, structures and processes.

LED 8120 Student On-Campus Employment (0.5-0) 0.5 crs. Provides the opportunity to know and understand 21st century workplace readiness skills, explore jobs on campus, skills, strengths, abilities, and work-related values. Imparts specifics about Harper College and guidelines for working on a college campus. Improves ability to apply, interview, and obtain a job on campus as a student employee.

LED 8130 Harper Leadership Institute Retreat (2-0) 2 crs. Provides comprehensive leadership training for faculty and staff through a model of learning, leading and reflecting. Develops leadership competencies for community college leaders: organizational strategy, collaboration, communication, resource management, community college advocacy, professionalism and cultural competence. Provides opportunity to grow professional efficacy as a pathway to future leadership opportunities. Develops an understanding of Harper College within the context of the community college movement.

LED 8131 Harper Leadership Institute Seminar (0.5-0) 0.5 crs. Continues development of comprehensive leadership training for faculty and staff through a model of learning, leading, and reflecting. Advances leadership competencies for community college leaders: organizational strategy, collaboration, communication, resource management, community college advocacy, professionalism, and cultural competence.

## LFD CE Faculty Development

## LFD 8001 Abstract Algebra I (3-0)

3 crs.
Covers modern methods, language, and ideas currently used in Algebra. Discusses algebraic structures: groups, rings, modules and fields and explores related topics.

## LFD 8002 Abstract Algebra II (3-0)

3 crs. Presents concepts in Abstract Algebra, covering modern methods, language, and ideas used in current work in Algebra. Develops the topics introduced in Abstract Algebra I. Discusses the application of these abstract concepts to topics that are often stated or used without full explanation in secondary mathematics. Presents topics that impact the treatment of secondary school geometry (the so-called Erlanger Program) along with results about solutions to equations.

LFD 8003 Greening Your Curriculum I (3-0) 3 crs. Explores sustainability, bringing together faculty members from diverse fields. Addresses faculty who are "testing the waters" of sustainability in the curriculum and those interested in revising existing projects. Examines through discussions, readings and course materials the environmental dimensions of the campus and the region, as well as, broader national and international issues of public health, social justice, economics, and social change as they relate to sustainability

LFD 8006 Social Equity/Environmental Justice (3-0) 3 crs. Prepares higher education faculty who wish to make their curriculum relevant to issues of sustainability issues across all disciplines. Identifies areas of intersection. Explores effective assessment of critical thinking skills.

LFD 8007 Deep Learning Across the Curriculum (3-0) 3 crs. Juxtaposes learning theory and praxis to help educators create the foundation for "deep learning" to take place in the classroom. Explores varied "approaches" to learning, and challenges educators to recognize and facilitate the dynamics that cause students to learn deeply, substantively, and critically.

LFD 8008 Integrative Teaching/Learning (3-0) 3 crs. Provides community college instructors with a comprehensive understanding of Integrative Learning through research, diverse models of design, and, actual examples from other colleges. Includes selecting a design model and creating an academically sound integrative unit or project to be implemented in one or more of the participants' classes.

LFD 8009 Food: Think Globally/Act Locally (3-0) 3 crs. Explores sustainability issues related to food and its environmental dimensions. Explores ways to infuse food sustainability in curriculum and identify changes that can be made to current curriculum.

## LIC CE Personal Skills

LIC 8030 Enrolled Agent Exam Review (4-0) 4 crs.
Provides an intensive review of federal taxes that will help students prepare for the rigorous Enrolled Agent Exam administered by the Internal Review Service. Examines income taxes, partnerships, corporate, trusts, estates and others. Recommended preparation: Tax preparation experience.

## LMD CE Management Development

LMD 8082 Successful Management (1.5-0)
1.5 crs.

Teaches practical knowledge in how to make effective decisions, the value of teamwork and the power of delegation. Includes how to hire for results.

## LNT CE Microsoft

## LNT 8003 Program Win Metro Style Apps With HTML5

 (0.5-1)Teaches the features of Metro style apps development for Windows 8. Provides knowledge on Windows 8 and how to successfully create, publish and monetize applications to the Windows Store. Provides hands-on opportunities to implement and manage the Metro style app lifecycle, and to develop Metro style apps that target multiple device types, screen resolutions and view states.

LNT 8175 Sharepoint Application Development (2-1) 2.5 crs. Provides.NET developers with practical information and labs that enable them to build solutions on the Microsoft SharePoint 2010 platform. Includes an overview of the SharePoint 2010 development platform, Web Parts, server-side objects, data access using Business Connectivity Services, workflows, user interfaces, Silverlight integration, and content management services. Recommended preparation: LNT 8310 or equivalent experience.

## LNT 8215 Implement and Manage MS Server Virtualization (1-1) <br> 1.5 crs .

Provides knowledge and skills to deploy and manage a server virtualization environment, Hyper-V and Remote Desktop Services on Windows Server. Provides details on how to manage a server virtualization environment by using System Center products, Virtual Machine Manager, Systems Center Operations Manager, System Center Configuration Manager.

LNT 8231 Maintain SQL 2008 Database (2-1) 2.5 crs.
Provides the knowledge and skills needed to maintain a Microsoft SQL Server 2008 database. Focuses on the use of SQL Server 2008 product features and tools related to maintaining a database.

LNT 8232 Implement SQL 2008 Database (2-1) 2.5 crs.
Covers implementation of a Microsoft SQL Server 2008 database. Focuses on the use of SQL Server 2008 product features and tools related to implementing a database.

LNT 8233 Exchange Server 2010 Messaging (2-1) 2.5 crs. Examines requirements gathering and implementation of Exchange Server 2010 into an existing infrastructure. Covers server roles, security policies and compliance. Includes high availability and disaster recovery options and how to develop a troubleshooting plan. Prepares students for Microsoft MCITP Exam 70-663. Recommended preparation: LNT 8135 or equivalent knowledge.

LNT 8234 SQL Server 2008 Analysis Services (1-0.5) 1 cr. Teaches the implementation of an Analysis Services solution in an organization. Discusses how to use the Analysis Services development tools to create an Analysis Services database and an OLAP cube, and how to use the Analysis Service management and administrative tools to manage an Analysis Services solution. Recommended preparation: Experience with Microsoft SQL Server and Windows Server administration.

LNT 8235 SQL Server 2008 Intergration Servcices (1-0.5) 1 cr. Teaches the implementation of an Integration Services solution in an organization. Includes control flow, data flow, logging, error handling, checkpoints, transactions, management and security. Intended for IT professionals who need to implement data transfer or ETL solutions using Microsoft SQL Server 2008 Integration Services. Recommended preparation: Experience with Microsoft SQL Server and Windows Server administration.

LNT 8236 SQL Server 2008 Reporting Services (1-0.5) 1 cr. Teaches the implementation of a Reporting Services solution in an organization. Includes report creation, manipulation of data sets, report models, subscriptions, administration, and custom applications. Recommended preparation: Experience with Microsoft SQL Server and Window Server administration.

LNT 8264 Developing Web Applications (2-1) 2.5 crs.
Explores development of advanced ASP.NET MVC and
Web Forms applications using .NET Framework 4 tools and technologies. Focuses on performance and scalability enhancements for web applications. Recommended preparation: Experience with Visual Studio, C\# or VB, and web application development.

LNT 8265 Data Access Solutions (2-1)
2.5 crs.

Covers design principles and techniques for data access using the ADO.NET Entity Framework, LINQ, WCF Data Services, the Sync Framework, and ADO.NET. Instructs about multi-user scenarios, optimization, best practices, and extensible solutions. Recommended preparation: Experience with .NET, Visual Studio, LINQ, and web application development.

LNT 8267 Introduction to Web Development (2-1) 2.5 crs.
Explores development of ASP.NET Web applications using Microsoft Visual Studio 2010. Covers Web Forms, validation of user input, database access using ADO.NET, data management using LINQ, ASP.NET AJAX, and web application security and deployment. Recommended preparation: LNT8994 and knowledge of HTML or equivalent experience.

LNT 8292 Configuring Windows 7 (1-0.5) 1 cr. Teaches how to install, upgrade and migrate to Windows 7 client. Includes configuration of Windows 7 client for network connectivity, security, maintenance and mobile computing. Recommended preparation: Experience installing PC hardware, basic understanding of TCP/IP, and basic familiarity with Windows and Active Directory.

LNT 8294 Planning Windows 7 Deployments (2-1) 2.5 crs.
Demonstrates how to plan and deploy Windows 7 desktops in large organizations. Covers design, configuration and management of the Windows 7 client environment. Includes imaging, deployment tools and migration of user states. Prepares students for the Exam 70-686, Pro: Windows 7, Enterprise Desktop Administrator. Recommended preparation: Experience installing PC hardware, basic understanding of TCP/IP, and basic familiarity with Windows and Active Directory.

## LNT 8310 Developing Web Applications With Visual Studio 2008 (2-1) <br> 2.5 crs.

Teaches the fundamentals of web application development and best practices for Microsoft web development technologies, including ASP.NET 3.5, NET AJAX Extensions, and Silverlight. Focuses on using the Microsoft Visual Studio 2008 development environment and the Microsoft .NET Framework 3.5 to create a web application that delivers dynamic content to the web site.

## LNT 8331 Core Solutions in MS Sharepoint Server 2013

 (1-1)1.5 crs.

Provides the knowledge and skills to configure and manage a Microsoft SharePoint Server 2013 environment. Teaches how to configure SharePoint Server 2013 and provides guidelines, best practices, and consideration that will optimize SharePoint server deployment. Prepares for Microsoft certification exam 70-467 Implementing Data Models and Reports with Microsoft SQL Server 2012. Recommended Preparation: LNT8410 Installing and Configuring Windows Server 2012, or equivalent knowledge. Experience connecting applications to Microsoft SQL Server and with SharePoint Service Application models recommended.

LNT 8410 Installing and Configuring Windows Server 2012 (1-1) 1.5 crs.

Provides the skills and knowledge necessary to implement a core Windows Server 2012 Infrastructure in an existing enterprise environment. Covers Active Directory Services, networking services, and Hyper-V configuration. Teaches implementing, managing, maintaining, and provisioning services and infrastructure in a Windows Server 2012 environment, Prepares for Microsoft Certification Exam 70-410: Installing and Configuring Windows Server 2012. Recommended preparation: LAP 8002, Network+ oe equivalent experience.

LNT 8411 Administering Windows Server 2012 (1-1) 1.5 crs. Provides the skills and knowledge necessary to implement a core Windows Server 2012 Infrastructure in an existing enterprise environment. Covers the administration tasks necessary to maintain a Windows Server 2012 Infrastructure, such as group management, network access and data security. Prepares for Microsoft Certification Exam 70-411: Administering Windows Server 2012. Recommended preparation: LNT 8410, strong hands-on experience working in a Windows Server environment, or equivalent.

LNT 8412 Configure Adv Win Server 2012 (1-1) 1.5 crs.
Teaches how to provision and configure advanced services using Windows Server 2012 and provides the skills and knowledge necessary to implement a core Windows Server 2012 infrastructure. Covers the advanced configuration of services necessary to deploy, manage and maintain a Windows Server 2012 infrastructure, such as advanced networking services, Active Directory Domain Services, identity management, rights management, Federated Services, network load balancing, failover clustering, business continuity and disaster recovery. Prepares for Microsoft certification exam 70-412: Configuring Advanced Windows Server 2012 Services.

LNT 8420 Windows Server 2008 Fundamentals (2-1) 2.5 crs.
Teaches basic fundamentals of networking, security and server administration with Windows Server 2008. Provides foundational knowledge needed to prepare for the Microsoft MTA exam. Includes TCP/IP, installing and configuring Windows Server, implementing Active Directory Domain Services, monitoring server performance, and virtualization. Recommended preparation: A+ certification, training, or equivalent experience required and an understanding of basic security, networking and administration recommended.

LNT 8421 Server 2008 Network Configuration (2-1) 2.5 crs. Teaches how to configure and troubleshoot a Windows Server 2008 network infrastructure. Covers secure network access, fault tolerant storage, server security, and update compliance. Discusses network technologies most commonly used with Windows Server 2008 and IP-enabled networks. Recommended preparation: Work experience with Windows Server, knowledge of Active Directory, understanding of security concepts, and basic knowledge of DHCP and IP sec.

LNT 8424 Fundamental 2008 Active Directory (1-1) 1.5 crs. Introduces Active Directory server roles and their basic functionality in Windows Server 2008. Covers directory, certificate, rights management, and federation services. Also covers creating user and computer accounts and creating an organizational unit infrastructure.

## LNT 8425 Configuring 2008 Active Directory Domain (2-1)

Provides Active Directory Technology Specialists with the knowledge and skills to configure Active Directory Domain Services in a distributed environment, implement Group Policies, perform backup and restore, and monitor and troubleshoot Active Directory related issues. Recommended preparation: LNT 8424 or equivalent experience.

## LNT 8426 Configuring ID Access Solution Active Directory

 (1-1) 1.5 crs. Provides the knowledge and skills needed to configure identity and access solutions with Windows Swerver 2008 Active Directory. Teaches how to integrate applications and platforms with enterprise directory and security services while increasing access for groups and users.Prerequisite: LNT 8424 and LNT 8425 with an outcome of satisfactory (S) or equivalent experience.

## LNT 8430 Server 2008 Planning and Administration

 (2-1)2.5 crs.

Covers planning, management and maintenance of Windows
Server 2008 servers. Includes deployment, server roles, configuration change planning, application, versioning, maintenance scheduling, monitoring, and troubleshooting of hardware, software, and network issues. Recommended preparation: LNT 8421 or equivalent experience.
LNT 8461 Windows Communication Foundation (1-0.5) 1 cr. Teaches the building and configuration of a Windows Communication Foundation (WCF) solution. Includes configuring services as a managed application, exposing a WCF service using behaviors adding error handling, implementing security, and protecting data integrity with transactions. Recommended preparation: Experience developing applications with web services using the .NET framework.

## LNT 8467 Design Business Intelligence Solutions With MS

 SQL Server 2012 (1-1)Teaches how to design and implement a BI infrastructure. Covers the design, installation, and maintenance of a Business Intelligence platform. Instructs upon the overall design of a Business Intelligence infrastructure including how it relates to other data systems. Discusses Online Analytical Processing (OLAP) cube design and integration with Microsoft SharePoint or line-of-business applications. Prepares for Microsoft certification exam 70-467 Implementing Data Models and Reports with Microsoft SQL Server 2012. Recommended Preparation: LNT8777 Implementing a Data Warehouse with Microsoft SQL Server 2012 and LNT8778 Implementing Data Models and Reports with Microsoft SQL Server 2012, or equivalent knowledge.

## LNT 8480 Programming in HTML5 With Javascript and Css3 (1-1) 1.5 crs .

Provides an introduction to HTML5, CSS3, and JavaScript programming. Instructs on programming logic, define and use variables, perform looping and branching, develop user interfaces, capture and validate user input, store data, and create wellstructured applications. Prepares for Microsoft certification exam 70-480: Programming in HTML5 with JavaScript and CSS3. Is intended for professional developers with 1 to 3 months experience creating Web applications, including JavaScript code, experience with Visual Studio. Recommended preparation: LCT 0190, LCT 0193, LCT 0210, LCT 220 and LCT 0290.

## LNT 8481 Developing Win Store Applications With HTML5 (1-1)

Teaches essential programming skills and techniques that are required to develop Windows Store apps. Provides learning in a combination of both design and development skills using Visual Studio and Expression Blend tools. Prepares for Microsoft Certification Exam 70-481: Essentials of Developing Windows Store Apps using HTML5 and JavaScript. Recommended preparation: LNT 8480 or equivalent experience.

LNT 8483 Programming in C\# (1-1)
1.5 crs.

Teaches programming skills required for developers to create Windows applications using the C\# language. Includes basics of C\# program structure, language syntax,implementation detail and building an application that incorporates features of the .NET framework. Introduces techniques and technologies employed by modern desktop and enterprise applications including building new data types, handling events, programming the user interface, accessing the database, using remote data, performing operations asynchronously, integrating with unmanaged code, creating custom attributes and encrypting and decrypting data. Prepares for Microsoft certification exam 70-483 Developing ASP.NET MVC 4 Web Applications.

LNT 8486 Develop Asp.net Mvc4 Web Apps (1-2) 2 crs. Teaches how to develop advanced ASP.NET MVC applications using the .NET framework and technologies. Incorporates coding activities that enhance performance and scalability of website applications. Imports knowledge of developing advanced web applications and creating websites that separate the user interface, data access and application logic. Prepares for Microsoft certification exam 70-486 Developing ASP.NET MVC 4 Web Applications. Recommended Preparation: LNT8480, or equivalent knowledge. Experience with JavaScript, object-oriented programming and developing web-based applications required.

LNT 8487 Develop Windows Azure \& Web Services (1-2) 2 crs. Teaches how to design and develop services that access local and remote data from various data sources. Explains how to develop and deploy services to hybrid environments including on-premises servers and Windows Azure. Prepares for Microsoft Certification Exam 70-487 Developing Windows Azure and Web Services. Recommended Preparation: LNT8486, or equivalent knowledge. Experience with C\# programming, ASP.NET and developing web-based applications required.
LNT 8774 Querying Microsoft SQL Server 2012 (1-1) 1.5 crs. Provides knowledge with the technical skills required to write basic Transact-SQL queries for Microsoft SQL Server. Serves as a foundation for all SQL Server-related disciplines in database administration, database development and business intelligence. Recommended Preparation: Working knowledge of relational databases and basic knowledge of the Microsoft Windows operating system.

LNT 8775 Administer MS SQL 2012 Databases (1-1) 1.5 crs. Provides knowledge and skills to maintain a Microsoft SQL Server 2012 database. Focuses on how to use SQL Server features and tools related to maintaining a database. Teaches SQL Server servicing, automated updates, database containment, userdefined server roles, in-place upgrades of data-tier applications, high availability and replication concepts.

LNT 8777 Implement SQL 2012 Data Warehouse (1-1) 1.5 crs. Prepares students to implement a Business Intelligence platform to support information worker analytics. Imparts knowledge on how to create a data warehouse with SQL Server 2012, implement Export Transport Load (ETL) with SQL Server Integration Services, validate and cleanse data with SQL Server Data Quality Services and SQL Server Master Data Services. Prepares for Microsoft certification exam 70-463: Implementing a Data Warehouse with Microsoft SQL Server 2012. Recommended Preparation: LNT 8755 and working knowledge of Transact-SQL.

LNT 8778 Queries SQL Ser 2008 Transact-SQL (1-0.5) 1 cr. Introduces Transact-SQL. Covers basic SELECT queries, grouping, joins, subqueries, data modification, transactions, and heterogeneous data sources. Teaches how to access and manipulate data in SQL Server 2008 databases and other data sources. Students should understand relational databases and be familiar with programming or scripting language.

## LNT 8887 Implementing Data Models and Reports Using MS SQL Server 2012 (1-1) <br> 1.5 crs.

Teaches how to implement multidimensional analysis solutions, create PowerPivot and tabular data models, deliver rich data visualizations with PowerView and SQL Server Reporting Services. Discover business insights by using data mining, self-service analytics and reporting. Prepares for Microsoft certification exam 70-463 Implementing Data Models and Reports with Microsoft SQL Server 2012. Recommended Preparation: LNT8774 Querying Microsoft SQL Server 2012, or equivalent knowledge of querying with Transact-SQL. Experience with relational databases required.

## LNT 8994 Introduction to Programming .NET Visual Studio 2005 (2-1) <br> 2.5 crs .

Enables introductory-level developers who are not familiar with the Microsoft .Net framework or Microsoft Visual Studio 2005 to learn about VS 2005's development environment. Teaches basic skills using either MS Visual Basic or MS Visual C\# as a programming language. Students need basic computer skills for this class.

## LNU CE Health Career Professionals

LNU 8050 Clinical Faculty Academy (0.5-0) 0.5 crs.
Teaches skills for registered nurses serving as clinical instructors in college nursing programs. Strengthens existing skill set of experienced professors and provides new faculty with the resources to become quality nurse educators. Offers an overview of clinical instructing for RNs who are interested in teaching nursing.
LNU 8300 Rn Refresher Didactic Review (4.5-0) $\quad 4.5$ crs.
Updates out of practice nurses to the latest medical trends. Includes update of nursing processes, patient education and documentation. Reviews pain management, medication administration, fluids and electrolytes, IV therapy and blood administration. Covers care for respiratory, cardiac, liver/biliary, renal/urinary, diabetic and cancer patients. Reviews skin care and wound management, mental health and caring for older adults.
LNU 8322 Current Nursing Practice Update (4-8) 7 crs. Provides U.S. nurses out of clinical practice for five or more years with an opportunity to regain hands-on skills and confidence in order to renew or obtain a State of Illinois License. This course is also for nurses working in non-hospital settings, returning to the workforce, or wanting to further their education in the most current medical practices. Accredited by IDFPR. Students must attend a mandatory information session.

## LOR CE Oracle DBA

LOR 8601 Oracle DB 11g: Introduction to SQL (0.5-1) 1 cr. Covers the fundamentals of SQL using Oracle Database 11 g database technology. Explains concepts of relational databases and the powerful SQL programming language. Provides the essential SQL skills that allow developers to write queries against single and multiple tables, manipulate data in tables, and create database objects. Teaches single row functions to customize output, conversion functions and conditional expressions and group functions to report aggregated data. Demonstrations and hands-on practice reinforce the fundamental concepts. Utilizes Oracle SQL Developer as the main tool and SQL *Plus is introduced as an optional tool. Requires familiarity with data processing concepts and techniques.

## LOR 8602 Oracle DB 11g: Administration Workshop I

(1-2)
Oracle Database 11 g . Provides a conceptual understanding of the Oracle database architecture and how its components work and interact with one another. Teaches how to create an operational database and properly manage the various structures in an effective and efficient manner. Includes performance monitoring, database security, user management and backup/recovery techniques. Reinforces topics with structured hands-on practices.
Prerequisite: LOR 8601 with an outcome of satisfactory (S) or consent of instructor or program coordinator.

## LOR 8603 Oracle DB 11g: Administration Workshop II

 (1-2)2 crs.
Explores concepts and architecture that support backup and recovery, along with varied situational implementation. Includes how to define and test your own backup and recovery scenarios. Teaches effective memory management, performance evaluation and tuning tasks, and the use of advisors. Includes flashback technologies, scheduling jobs inside and outside of the database, controlling system resource usage, and hands-on practices.
Prerequisite: LOR 8602 with an outcome of satisfactory (S) or consent of instructor or program coordinator.

## LOR 8604 Oracle DB 11g: New Features for Administration (1-2) 2 crs.

Teaches new change management features and other key enhancements in Oracle Database 11g. Emphasizes the benefits and use of the new features in managing change, diagnosing and recovering from problems, ensuring high availability, improving scalability and performance, strengthening security, and several other areas that concern database administrators. Prepares for the Oracle 11g DBA certification upgrade exam. Requires strong Oracle Database 10 g concepts, consent of instructor or program coordinator.

## LPM CE Project Management

## LPM 8010 Business Systems Analyst (0.5-1)

1 cr .
Provides students business analysis knowledge and an understanding of the Systems Development Life Cycle. Examines strategies for analyzing business processes and demonstrates how to apply concepts and practical techniques. Teaches how to solve complex issues to analyze business and user needs, document requirements, and translate in system requirement specifications. Recommended preparation: project management experience and technical business case writing knowledge of Microsoft Excel and Visio, or equivalent experience required.

## LRE CE Real Estate

## LRE 8112 Home Inspection (3-0)

3 crs.
Prepares students for the State of Illinois licensing exam for home inspectors. IDFPR-approved course; students must attend all classes and pass this pre-licensing final exam with a score of 70 percent or better. This technical course requires a significant amount of study outside of the classroom. Students must have a working knowledge of the building trades industry.

## LRE 8170 Broker Pre-Licensing (5-0)

5 crs.
Provides instruction in real estate fundamentals. Includes introduction to the License Law and real property; basics of agency, seller and buyer relationships and counseling; local, state and federal laws affecting real estate; brokerage, marketing and advertising; market analysis and appraisal; financing, contracts, independent contractor and employee status; occupational disciplines and business planning.

LRE 8171 Applied Real Estate Principles (1-0) 1 cr. Provides real estate instructions and includes role play situations, case studies and demonstrations. Covers listing presentations, buyer presentations, agency disclosures, purchase agreements, handling offers, negotiating, market analysis, closing costs, escrow money, fair housing, and anti-trust.

## LRE 8172 Broker Post-License (2-0)

2 crs.
Provides instruction in license law; local, state and federal laws, real property updates and risk management issues; agency issues, seller and buyer counseling; market analysis and appraisal; financing and distressed properties; contracts and conveyances; and closing a transaction.

## LRE 8173 Managing Broker (3-0) <br> 3 crs.

Provides instruction in licensing, operations and handling money; managing licensees including recruiting and ongoing support, marketing and advertising, and dispute resolution; risk management, laws and issues; company policy; disclosure issues and industry issues.

## LRP CE Food Service

## LRP 8005 Food Standards/Sanitation Exam Preparation (1.5-0) <br> 1.5 crs.

Covers proper precautions, food contaminations, hazards, how
food becomes unsafe, personal hygiene, cross contamination,
following the flow of food (HACCP), and cleaning and sanitizing. The state approved NRA Education Foundation ServSafe exam is give the class period. Test meets certification requirement for the Illinois Department of Public Health (IDPH). By presenting your IDPH certification to the Chicago Health Department and paying additional fees, your certificate should be accepted by the city.

LRP 8500 Bartender Training (1-0) 1 cr.
Includes prepping the bar, free-pouring, mixing, blending, shaking, money handling, product knowledge, liquor laws and how to get hired. Covers basics of bar management and expertise on tip making. Must be at least 21 years of age.

## LSJ CE Sun Java

LSJ 8001 Java Fundamentals (1-2)
2 crs.
Teaches the significance of object-oriented programming and concepts such as inheritance, encapsulation and abstraction. Explains keywords and constructs of the Java programming language and basic error handling for Java technology programs. Demonstrates how to create Java classes containing arrays, loops and conditional constructs. Provides knowledge in Java programming language constructs and shows how to create Java technology applications. Recommended Preparation: LCT0190 or knowledge of HTML. Some programming experience beneficial but not required.

LSJ 8002 Java Programming (1-2)
2 crs.
Covers core Application Programming Interfaces (API) used to design object-oriented applications with Java. Includes creating classes, extend abstract classes and programming with interfaces. Teaches how to develop applications that manipulate files, directories and file systems. Provides knowledge in how to use exceptions and the Collections framework, write database programs with JDBC and multi-threaded applications. Recommended Preparation: LSJ8001 or the ability to create, compile and execute programs. Understanding of object-oriented principles, database concepts and familiar with SQL syntax.

## LSJ 8700 Core Java (2.5-1)

3 crs.
Covers the essentials of object-oriented programming and core features of the Java programming language. Explains important Java syntax in detail and helps develop knowledge and skills needed by experienced programmers. Includes environment setup, program structure, strings, primitives, references, objects, arrays, control structures, classes, methods, interfaces, enums, access control, encapsulation, inheritance, polymorphism, exception handling, collections, generics, file I/O, and concurrency. Recommended preparation: Academic or work experience in any programming language.

## LSJ 8710 Advanced Java (1.5-1) <br> 2 crs.

Explores basic Enterprise Java and related technologies essential to most Java jobs. Provides exposure to the Linux environment. Demonstrates how to implement and connect to a database using MySQL and JDBC, how to implement a web server using Apache Tomcat, and how to create dynamic web pages using JavaServer Pages, Servlets, and XML. Recommended preparation: LSJ8700 Core Java or equivalent experience.

## LSP CE Security Certified Personnel

## LSP 8000 Ethical Hacker (2.5-1)

3 crs.
Provides security professionals and site administrators with the same knowledge and tools used by professional hackers in order to understand vulnerabilities and build defenses against malicious attacks. Includes international hacking laws, reconnaissance, Google hacking, scanning, system hacking, Trojans and backdoors, viruses and worms, sniffers, social engineering, phishing, DoS attacks, session hijacking, SQL injection, wireless network hacking, Linux hacking, detection system evasion, cryptography, cyber warfare, spying, corporate espionage, software piracy, hacking and cheating online games, GPS hacking, web browser hacking and computer forensics. Recommended preparation: Two years of work experience in a security-related field or IT position involving security and strong familiarity with computer networking. (A+ and Network+ training or equivalent experience also recommended.)

## LTD CE Teacher Development

## LTD 8152 Child Growth and Development, Birth - 5 Years (1-0) <br> 1 cr.

Discusses principles of child growth and development from birth through age five. Emphasis on developmental milestones and cultural influences.

## LTD 8153 Child Behavior and Classroom Management

 (1-0)Provides methods of guiding children's behavior, encouraging prosocial behavior, and dealing with common problems.
Emphasizes on principles and skills in classroom management.
LTD 8154 Resources and Activities for Young Children I (1-0) 1 cr. Aids in planning the learning environment which includes the schedule, themes and activities incorporating art, motor, music and movement, health and safety, and nutrition.l

LTD 8155 Resources and Activities for Young Children II (1-0)
Aids in planning the learning environment to incorporate appropriate themes and activities in math, science, social studies, language, literature, dramatic play, and group time.

LTD 8999 Preparing for the TAP Exam (1-1 to 3-3) 1-3 crs. Prepares prospective teachers to take and pass the Test of Academic Proficiency (TAP) by refreshing and/or improving skills and abilities in reading, language arts, writing and mathematics. NOTE: Students must have basic computer skills before enrolling in this class. This course can be repeated three times.

## LTM CE Therapeutic Massage

LTM 8011 Therapeutic Massage Fundamentals (7.5-5) 10 crs. Provides an overview and historical development of massage therapy and its relationship to health care. Covers the requirements for the practice of therapeutic massage, sanitary and safety issues, fundamental theory and hands-on application involving major massage approaches. Introduces theory and hands-on skills in Swedish massage, joint mobilization, range of motion, pre-and post-natal and infant massage, deep tissue massage, trigger-point therapy and neuromuscular therapy. Prerequisite: LTM 0001 with an outcome of satisfactory (S).

## LTM 8012 Therapeutic Massage Theory Application

 (6.5-7)10 crs.
Covers anatomy, physiology, complementary bodywork systems and special populations as related to therapeutic massage. Includes biomechanics and the following body systems: intergumentary, cardiovascular, lymphatic, immune, respiratory, digestive, urinary and reproductive. Includes recordkeeping, assessment procedures, indications and contraindications, business considerations, and wellness education. Continues theory and joint mobilization, range of motion, pre- and postnatal massage, deep tissue massage, trigger point therapy, neuromuscular therapy and sports massage. Recommended preparation: LTM 8011

## LTM 8013 Therapeutic Massage Advanced Techniques (5.5-7)

 Develops an overall understanding of clinical therapeutic massage including hygiene, sanitation, safety, body mechanics, massage manipulations and techniques, assessment procedures, biomechanic basics, complementary bodywork systems and medical terminology. Includes theory and demonstration of skills required for clinical therapeutic massage. Recommended preparation: LTM 8012.LTM 8200 Therapeutic Massage Practical Clinical (0-3) 1 cr. Employs basic techniques learned in the classroom with clinic clients under the supervision of the Student Clinic Assistant. Utilizes on-site clinic rooms or classroom to complete clinical hours. Allows students to perform daily tasks associated with clinic operation such as placing reminder calls and filing clinic charts. Recommended preparation: LTM 8011

LTM 8300 Therapeutic Massage Advanced Clinical (0-3) 1 cr. Teaches students to assess clients and prepare session to meet each client's unique needs. Utilizes on-site clinic rooms or classroom to complete clinical hours. Includes participation in four community massage events. Allows students to perform daily tasks associated with clinic operation such as answering clinic phone, scheduling clients and maintaining clinic files. Recommended preparation: LTM 8011, LTM 8012 and LTM8200

## LVM CE Volunteer Management

LVM 8201 Non-Profit Boards (1-0)
1 cr.
Provides insight into a strategic planning process including goals, action steps, budgets and evaluation. Examines boardlevel legal considerations, including legal filings for Illinois and the IRS, conflict of interest, directors' and officers' liability, and whistleblower policies as they apply to the management of nonprofit organizations. Recommended preparation: LVM 0200 or knowledge of non-profit organizations.

LVM 8202 Fundraising for Non-Profits (1-0) 1 cr. Provides insight into planning giving options, features and benefits to donors and institutions, and how to handle unique ethical challenges. Examines special fundraising events with best practices. Describes major gifts and capital campaigns and how to identify, cultivate and ask for funds. Defines annual giving; how to prepare a case support; cultivate, motivate and retain donors; and efforts for a long-range plan. Recommended preparation: LVM 0200 or knowledge of non-profit organizations.

## LVV CE Autodesk

LVV 8090 Autocad: Create/Present 3D Models (1-1) 1.5 crs. Covers the creation of 3D models to help visualize and present designs. Includes visual styles, model walk-throughs, materials, lighting, and electronic distribution. Students will need some experience using AutoCAD software prior to enrollment.

LVV 8311 3DS Max Essentials (1.5-1) 2 crs. Covers the essentials of 3D design using Autodesk 3DS Max. Includes modeling, animation, materials, lighting, and rendering. Teaches skills and techniques that can be applied in a production environment, television, video game development or movie animation. Requires familiarity with Windows and experience with 3D art and design.

LVV 8312 3DS Max for Design Visualization (1.5-1) 2 crs. Provides a fundamental understanding of using 3DS Max to create 3D environments for conceptual exploration, design validation, and visual communication. Includes hands-on exercises to demonstrate the modeling process. Teaches techniques that can be applied to mainstream drafting industries.

LVV 8314 3DS Max MAXScript Essentials (1.5-1) 2 crs.
Teaches you techniques for automating tasks in 3DS Max using
MAXScript language. Demonstrates interacting with a 3DS
Max scene and using scripts to automatically control actions. Encompasses almost all of the 3DS Max features.
Prerequisite: LVV 8311 with an outcome of satisfactory (S) or consent of instructor or program coordinator.

## LVV 8330 3DS Max Advance Modeling and Mapping

 (1.5-0.5)Focuses on creating both low-poly (in-game) and high poly models with particular attention paid to the normal mapping process. Includes use of the projection system in 3DS Max, tips on achieving the best results from your normal maps, how to edit normal maps using Photoshop, and using normal maps for both real time and pre-rendered projects.
LVV 8411 Autocad 2009 Essentials (1.5-1) 2 crs.
Covers the creation of basic 2D drawings using drawing and editing tools, organization of drawing objects on layers, addition of text and basic dimensions, preparations for plotting, and more sophisticated techniques for drawing setup and productivity.

## LVV 8412 Autocad 2009 Intermediate (1.5-1)

2 crs.
Builds on the basic concepts of the AutoCAD 2009 Essentials course. Improves productivity when creating, annotating, and printing drawings with AutoCAD. Discusses boundaries, regions, templates dimensioning, annotation, blocks, layouts, views, sheet sets, tables, and an introduction to 3D models.
Prerequisite: LVV 8511 with an outcome of satisfactory (S) or consent of instructor or program coordinator.
LVV 8611 Autodesk Inventory 2009 Essentials (2-1) $\quad 2.5$ crs. Covers the fundamental principles of 3D parametric part design, assembly design, and creating production-ready part and assembly drawings using Autodesk Inventor. Instructs how to capture design intent by using the proper techniques and recommended workflows for creating intelligent 3D parametric parts; creating, placing, and constraining custom and standard components in an assembly; and simulating mechanisms, animating assembly designs, and checking for interferences. Requires familiarity with Windows, drafting, design, or mechanical engineering.

## LVV 8625 Advanced Assembly and Machine Design

 (1-0.5)1 cr.

## LVV 8626 Autodesk Inventor Cable and Harness Design

 (0.5-0.5)0.5 crs .

Provides students with the knowledge needed to design physical cables and harnesses for electrical systems in almost any kind of product or machine. Demonstrates specific tools to incorporate cable and harness into digital prototypes utilizing Autodesk Inventor Cable and Harness Design software. Teaches accurate path lengths, how to identify and avoid small-radius bends, and design electrical components that fit into the mechanical assembly before manufacturing. Recommended preparation: LVV8611 and LVV8625, or strong knowledge of Autodesk's Inventor user interface and working environments. Autodesk Inventor Part and Assembly Modeling and Drawing View Creation and Annotating experience recommended.

## LVV 8630 Autodesk Inventor Tube and Pipe Design

 (0.5-0.5)0.5 crs.

Instructs students on the use of the Inventor Tube and Pipe environment to design routed elements, including tubing, piping, and flexible hose. Learn to incorporate tube and pipe runs into digital prototypes and to utilize the Inventor Tube and Pipe environment as a rules-based routing tool. Design and document tube and pipe designs through the creation of 2D drawings and export 3D design data. Required Preparation: LVV8611 and LVV8625, or strong knowledge of Autodesk's Inventor user interface and working environments. Autodesk Inventor Part and Assembly Modeling experience recommended.

LVV 8711 Autodesk Vault Essentials (1.5-1)
2 crs.
Covers all features in Autodesk Vault for managing files and projects. Teaches how to organize and share files, manage file versions, work in multi-user environments, and integrate Autodesk Vault with various Autodesk products. Includes handson exercises representing real-world design scenarios. Requires working knowledge of Autodesk Inventor and/or AutoCAD,
AutoCAD Mechanical, AutoCAD Electrical, or Autodesk Civil 3D.
LVV 8720 Revit Architecture Essentials (1.5-0.5) 1.5 crs.
Teaches building information modeling and the tools for parametric building design and documentation. Includes fundamental features of Revit Architecture, schematic design and construction documentation, and design visualization.
LVV 8721 Revit Architecture Intermediate (1-0.5) 1 cr.
Builds on concepts introduced in Revit Architecture Essentials. Covers advanced techniques for creating complex designs and professional-looking renderings, conceptual designs, creating and customizing objects, and team collaboration tools. Recommended preparation: LVV 8720 or equivalent experience.

LVV 8722 Revit Architecture Advanced (1-0.5) 1 cr . Explores advanced features of Revit Architecture that streamline the design process with a central 3-D model. Includes Conceptual Design (massing studies, space planning, visualization and rendering) and BIM Management (setting up Revit and creating custom families. Recommended preparation: LVV 8721 or equivalent experience.

LVV 8723 Autodesk Revit Mep Fundamentals (1.5-0.5) 1.5 crs. Teaches the concepts and principles of creating 3D parametric models of MEP systems from engineering design through construction documentation. Includes the user interface and HVAC basics, electrical, and piping/plumbing components of the Revit MEP software engineering modeling tool. Discusses how to create, document, and print the parametric model. Recommended Preparation: LVV8411 or knowledge of Computer Aided Design. Some knowledge in MEP engineering experience beneficial but not required.


[^0]:    - B.A., Hiram College
    - M.S., Louisiana State University
    - Ph.D., Louisiana State University

[^1]:    Credit will not be granted for MGT 225 and MTH 162 and MTH 165, only one.

[^2]:    Students may earn credit in either MGT 225 or MTH 162 or MTH 165, only one.

[^3]:    1 Credit will not be granted for MGT 225 and MTH 162 and MTH 165, only one.

    + These courses meet the World Cultures and Diversity graduation requirement. One 3 credit-hour course is required for graduation.

[^4]:    1 Select one from: HUM 106, HUM 107, HUM 110, LIT 208, LIT 223, LIT 224, PHI 160, PHI 205.
    2 Select at least one media-specific course from the following in consultation with an art department advisor: ART 206, ART 225, ART 240, ART 250, ART 261, ART 291, ART 296. If two or more courses are selected, they should be from different media.
    3 Refer to the Associate in Arts degree for approved courses in this category.

[^5]:    1 Refer to the Associate in Science degree for approved courses in this category.

[^6]:    1 Refer to the Associate in Arts degree for approved courses in this category.

[^7]:    1 Some schools may require a foreign language. Refer to the Associate in Arts degree for approved courses in this category.

[^8]:    1 If HED 200 is not selected, then one course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement.
    2 Refer to the Associate in Arts degree for approved courses in this category.

[^9]:    1 Refer to the Associate in Science degree for approved courses in this category.

[^10]:    1 All Music majors must demonstrate piano proficiency; MUS 265 may be passed by proficiency exam. Music majors are also advised to take MUS 100 as part of their elective credit.
    2 To be selected from MUS 280 through MUS 299.
    3 To be selected from MUS 130, MUS 136, MUS 140, MUS 145, and MUS 150.

[^11]:    1 Refer to the Associate in Science degree for approved courses in this category.

[^12]:    1 One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.
    2 Since secondary education is not a major at the baccalaureate level, students need to select a major and a teaching minor from among those disciplines taught in high schools. Course in the major and minor should be selected in consultation with an advisor.

[^13]:    1 Refer to the Associate in Arts degree for approved courses in this category.

[^14]:    1 One course from Humanities and Fine Arts or from Social and Behavioral Sciences must meet the world cultures and diversity requirement. Refer to the Associate in Arts degree for approved courses in this category.

[^15]:    1 Refer to the Associate in Arts degree for approved courses in this category.

[^16]:    1 Refer to the Associate in Arts degree for approved courses in this category.

[^17]:    1 The prerequisite for CIS 106 is math placement in MTH 101 or higher. The prerequisites for CIS 143 are CAS 160 with a grade of Cor better and math placement in MTH 101 or higher. Students should have a strong mathematics background prior to enrollment in software development courses.

[^18]:    1 Must be completed with a grade of C or better no earlier than five years prior to beginning the Dental Hygiene program.

    + This course meets the World Cultures and Diversity graduation requirement.

[^19]:    + Students need to choose a course to meet this requirement that also meets the World Cultures and Diversity graduation requirement.

[^20]:    1 A competency test, available in the Assessment and Testing Center, may be utilized to meet the mathematics requirement (MTH 060 or higher with a C or better). Students in this program who utilize the competency test to meet the mathematics requirement must complete an additional three credit-hour graphic arts course. See program coordinator for recommended courses.
    $2,+$ One three credit-hour course from the Social Sciences electives for the AAS degree is required. At least one of the Humanities or Social Science requirements must also meet the World Cultures and Diversity graduation requirement.

[^21]:    + This course meets the World Cultures and Diversity graduation requirement.

[^22]:    1 Students may take MTH 097, MTH 101, MTH 103, or higher.
    2 Choose from ENG 103 or SPE 101.

    + At least one of the Humanities or Social Science electives must also meet the World Cultures and Diversity graduation requirement.
    3 ELT electives: Select 8 credit hours from the following courses: ELT 125, ELT 135, ELT 144, ELT 145, ELT 146, ELT 147, ELT 161.
    4 Technical electives: Select courses not listed as required that have one of the following prefixes: ELT, MFT, MNT, SCM or WLD.

[^23]:    1 Students may take MTH 097, MTH 101, MTH 103, or higher.

[^24]:    1 Choose two courses from MCM 241, MCM 242, MCM 243, or MKT 252.

[^25]:    1 Must be completed no earlier than five years prior to beginning the Nursing program.
    2 For Advanced Placement Nursing students only.

    + Students need to choosse a course to meet this requirement that also meets the World Cultures and Diversity graduation requirement.

[^26]:    1 Applicants must be on the State of Illinois Certified Nursing Assistant Registry.

[^27]:    1 Students may take LEJ 201 or LEJ 202, but not both. Prerequisite of LEJ 101 will be waived for Paralegal Studies certificate students.

[^28]:    1 Prerequisites include a grade of B or better in ITP 101 and SGN 205 before ITP 110 and ITP 111 may be taken.
    2 A grade of C or better is required in this course.
    3 SGN 205 has a prerequisite of SGN 202 with a grade of $C$ or better, or consent of program coordinator.
    4 SGN 210 has a prerequisite of SGN 201 with a grade of $C$ or better, or consent of program coordinator.

[^29]:    1 Students may take MTH 097, MTH 101, MTH 103, or higher.

