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## Celebrating Our Past,

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## Mission STATEMENT

The City Colleges of Chicago delivers exceptional learning opportunities and educational services for diverse student populations in Chicago. We enhance knowledge, understanding, skills, collaboration, community service and life-long learning by providing a broad range of quality, affordable courses, programs, and services to prepare students for success in a technologically advanced and increasingly interdependent global society. We work proactively to eliminate barriers to employment and to address and overcome casual factors underlying socio-economic disparities and inequities of access and graduation in higher education.


## Board of Trustees/Officers of the District

## Community College District No. 508 Cook County State of Illinois

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President, Malcolm X College
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President, Kennedy-King College

## Clyde El-Amin

President, Olive-Harvey College
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# The City Colleges of Chicago COMPLIANCE STATEMENT 

## Compliance Statement

## Non-discrimination Policies and Procedures

Equal Opportunity in Programs, Services and Activities Policy
The Board of Trustees of the City Colleges of Chicago (CCC) prohibits discrimination by any person with respect to hiring, terms and conditions of employment, continued employment, admissions or participation in Board programs, services and activities based upon race, national origin, ethnicity, gender, age, religion, citizenship, sexual orientation, marital status, disability or handicap, veteran status, membership or lawful participation in the activities of any organization, or the exercise of rights guaranteed by local, state or federal law situations.
"Discrimination" includes harassment or the creation of a hostile working or learning environment based upon race, national origin, ethnicity, gender, age, religion, citizenship, sexual orientation, marital status, disability or handicap, veteran status or the exercise of rights guaranteed by local, state or federal law. Prohibited harassment under this policy includes, but is not limited to, unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature, where the conduct is made a condition of employment or participation in a Board program, service, or activity. Prohibited harassment also includes where submission to or rejection of such conduct is the basis for an employment or educational decision, or where such conduct interferes with the individual's work or academic performance or creates an intimidating, hostile, or offensive working or learning environment.

Pursuant to its policy and applicable local, state and federal laws, the Board of Trustees has adopted specific policies that prohibit Sexual Harassment, violations of Title IX of the Education Amendments of 1972 [link: http://www.dol.gov/oasam/regs/statutes/titleix.htm] (concerning gender discrimination in education), and disability discrimination.

## Discrimination and Harassment Complaint Procedures

Students who believe that they have suffered from a violation of CCC's equal opportunity policies with respect to non-discrimination or sexual harassment may file a complaint with the District's EEO Officer who is charged with investigating complaints of this nature. The EEO Officer or designee addresses all equal opportunity concerns of CCC employees, applicants for employment, students or applicants for admission or any other person including complaints of discrimination, harassment or hostile work environment, retaliation, intimidation and requests for accommodation due to religion or disability. With respect to students or other persons, complaints of discrimination may concern admissions, participation, application of academic policies, educational or learning environment, or any other term or of participation in Board programs, services and activities. Students who file such complaints are protected from retaliation.

Students may contact the EEO Officer by direct number at (312) 553-2639, through the Office of Human Resources at (312) 5532900, via e-mail to eeofficer@ccc.edu or by mail to the City Colleges of Chicago, Attention: EEO Officer, 226 West Jackson Blvd., 12th Floor, Chicago, Illinois 60606.
The complete text of the District's non-discrimination policies are contained in the Student Policy Manual. Copies of the City

Colleges of Chicago Equal Opportunity Complaint Procedures and the Discrimination Complaint Form are available in the District Office, Office of Human Resources at the above address, and in the Personnel Office at each of the seven City Colleges of Chicago locations. CCC's non-discrimination policies and complaint procedures and form are also available on the CCC website at http://ccc.edu/studentpolicy.

Prohibition Against Retaliation and Intimidation
Retaliation against and/or intimidation of employees, students, program participants, witnesses or any other persons who make complaints or who cooperate in EEO investigations is strictly prohibited.
Anyone who feels he or she is the victim of retaliation or intimidation should contact the EEO Officer to report such incidents immediately.

## Smoke Free Workplace

City Colleges of Chicago is a smoke-free environment.

## Prohibition On Unlawful Drug and Alcohol Use

The City Colleges of Chicago prohibits the use or distribution of alcoholic beverages in or on college property, or in conjunction with any college activities, except as authorized by state law and specifically approved by the college president or the chancellor. The unlawful manufacture, distribution, dispensation, use or possession of controlled substances (as defined in the Controlled Substances Act, 21 U.S.C. 812, section 202, schedules I through V ) in or on college property is strictly prohibited.

The Board of Trustees of the Community College District No. 508, is governed by the Illinois Public Community College Act, (110 ILCX 805/1-1, et seq.) and the Rules for the Management and Government of the City Colleges of Chicago, with any amendments enacted or thereafter.

A student or employee who is found to be in violation of the abovestated prohibitions will be subject to disciplinary action, up to and including expulsion and/or dismissal from employment.

## Privacy Of Educational Records

Pursuant to the Family Educational Rights and Privacy Act, the Board of Trustees has adopted a policy with respect to students' rights of access to their educational records, and the disclosure of educational records to third parties. The policy is published in the Student Policy Manual [link: http://ccc.edu/studentpolicy].

## Disclaimer

Information contained in this catalog is for informational purposes only and is subject to change by the Board of Trustees of Community College District No. 508 (City Colleges of Chicago).

The catalog contains information regarding City Colleges of Chicago, which is current as the time of publication. It is not intended to be a complete description of all City Colleges of Chicago policies and procedures, nor is it intended to be a contract. This catalog and its provisions are subject to change at any time without advance notice.
THIS IS NOT A CONTRACT.

## City Colleges of Chicago



## History of the City Colleges of Chicago

Community college education has existed in Chicago since 1911, when Crane Technical High School opened its doors to 28 adults seeking higher education. This led to the establishment of Crane Junior College (now Malcolm X College). From this modest beginning, the City Colleges of Chicago (CCC) has grown to a system of seven (7) individually accredited colleges and seven (7) satellite centers.

Clarence Darrow, the renowned Chicago lawyer, argued in the defense of the City Colleges of Chicago when, during the Depression, its existence was threatened by a financially strapped Board of Education. Darrow stated that higher education in the form of the then "junior college, had to endure" because the City Colleges of Chicago were "for the people."

As a result of state legislative action in the late 1960's, the City Colleges of Chicago's status as a junior college changed to that of a comprehensive community college.

The City Colleges of Chicago, Community College District 508 , today reaches more than 200,000 people annually, through the 14 facilities of the City College system, programs conducted in local community centers, public and parochial high schools, social service centers, and branches of the Chicago Public Library. Students can also take internet based courses via television through CCC's Public Broadcast Station, WYCC-TV Channel 20, and the Center for Distance Learning.

The district offers a variety of Associate Degree Programs that prepare students for transfer with junior level standing to four year institutions. A comprehensive offering of certificate programs also prepares students for immediate entry into their chosen careers.

City Colleges of Chicago provides specialized training for many workforce development programs, and tuition-free Adult Education courses including English as a Second Language (ESL), Adult Basic Education (ABE), and General Education Equivalency (GED), as well as Continuing Education (CE) programs that add value to the quality of life.

City Colleges of Chicago continues to serve its community, offering highly qualified faculty, a sustained commitment to affordable tuition and excellence in higher education for all citizens of Chicago. Please visit the City Colleges of Chicago at http://www.ccc.edu for additional information.

## Map of City Colleges of Chicago

## City Colleges of Chicago District Map

Daley College
7500 S. Pulaski Road
Chicago, IL 60652
(773) 838-7500

Arturo Velasquez Institute of Daley College 2800 S. Western Avenue
Chicago, IL 60608
(773) 843-4500

Kennedy-King College 6301 S. Halsted Street Chicago, IL 60621
(773) 602-5000

Dawson Technical Institute of Kennedy-King College 3901 S. State Street
Chicago, IL 60609
(773) 451-2100

Malcolm X College
1900 W. Van Buren Street
Chicago, IL 60612
(312) 850-7000

West Side Learning Center of Malcolm X College 4624 W. Madison Street Chicago, IL 60644 (312) 850-7420

## Olive-Harvey College

 10001 S. Woodlawn AvenueChicago, IL 60628
(773) 291-6100

South Chicago Learning Center of Olive-Harvey College 3055 E. 92nd Street
Chicago, IL 60617
(773) 291-6770

Harry S Truman College 1145 W. Wilson Avenue
Chicago, IL 60640
(773) 907-4700

Lakeview Learning Center of Truman College 3310 N. Clark Street
Chicago, IL 60657
(773) 907-4400

Truman Technical Center 1200 W. Sunnyside Avenue Chicago, IL 60640 (773) 907-3983

Harold Washington College
30 E. Lake Street
Chicago, IL 60601
(312) 553-5600

Wilbur Wright College
4300 N. Narragansett Avenue
Chicago, IL 60634
(773) 777-7900

Humboldt Park
Vocational Education Center
of Wright College
1645 N. California Avenue
Chicago, IL 60647
(773) 489-8989



## Campus Programs <br> Richard J. Daley College

# RICHARD J. DALEY COLLEGE 



## About Richard J. Daley College

Richard J. Daley College was first established as the Southwest Side College in 1960 on the Bogan High School campus. The program enrolled mostly part-time evening students and evidenced rapid growth. In 1970, the Southwest College opened its doors in a set of pre-fabricated buildings and trailers designed to accommodate 1,000 students.

The current college site was purchased by the City of Chicago and opened in 1981. It was named after Richard J. Daley, the former Mayor of the City of Chicago. The College has expanded its sites to meet the increased needs of the population in the service area. In 1997, it opened a technical training center, the West Side Technical Institute on Western Avenue and $28^{\text {th }}$ Street, which was renamed the Arturo Velasquez Institute in 2009.

## Daley College Locations

The Daley College campus is located on the Southwest Side on South Pulaski Road. The Arturo Velasquez Institute in located at 2800 S. Western Avenue. The College also offers courses at the Cantu Center, the Orozco School, the Perez School, the Reyes Center, and Piotrowski Park.

## Mission Statement

Richard J. Daley College provides a broad based educational experience that reflects a 100 year commitment to the Chicago community for fostering lifelong learning. The college's hallmark is creating an academic environment encouraging the development of values, technological understanding, critical thinking, and cultural awareness that helps students to think clearly, communicate effectively and analyze carefully everyday issues associated with local, national and global life.

## Regional Accreditation

Richard J. Daley College is accredited by The Higher Learning Commission and is a member of the North Central Association, which is located at 230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1413, (800) 621-7440.

## Specialized Accreditation

Child Development program at Daley College is accredited by the National Association for the Education of Young Children (NAEYC).
Nursing (LPN/RN) program is accredited by the National League for Nursing Accrediting Commission (NLNAC).

## Licensure

Basic Nursing Assistant (BNA) program is licensed by the Illinois Department of Public Health (IDPH).
Child Development Lab Center is licensed by the Illinois Department of Children and Family Services (IDCFS).
The Real Estate program is licensed by the Illinois Department of Financial and Professional Regulation (IDFPR).

## Certification

None

## Workforce Development Program Overview

Students completing Daley College's nationally accredited and state-licensed Child Development program can obtain state licensure for the Illinois Director Credential Level I in addition to the A.A.S. degree. Through its Manufacturing Technology and Logistics Institute, Daley College offers programs in precision metalworking, industrial automation, industrial maintenance, electrical construction technology, and transportation and logistics. Additionally, Daley College offers programs in A+ Certified Computer Technician, Criminal Justice, Nursing, and Pharmacy Technician.

## Kennedy-King COLLEGE



## About Kennedy-King College

Kennedy-King College, formerly known as Woodrow Wilson Junior College, was established in the fall of 1935 at 6800 South Stewart Street. In 1966, the College's status was changed from that of a junior college to that of a comprehensive community college. In July 1969, the name was officially changed from Woodrow Wilson Junior College to Kennedy-King College in honor of Robert F. Kennedy and Martin Luther King, Jr.

Situated on 30 acres, the new Kennedy-King College campus facility was completed in 2007. Kennedy-King College's new multibuilding educational complex includes state-of-the-art classrooms, a natatorium with balcony seating, a day care center, a 300-seat theatre, banquet and catering accommodations, WYCC Television studio, WKKC FM radio station, a restaurant and bakery, and a world-class chef's kitchen and baking facility.

## Kennedy-King College Locations

The Kennedy-King College campus is located at the corner of Halsted and 63 rd Streets. Courses are also offered at Dawson Technical Institute at 3901 South State Street, Washburne Culinary Institute at 740 West $63^{\text {rd }}$ Street, the Parrot Cage Restaurant at the South Shore Cultural Center, the French Pastry School at 226 West Jackson, Sikia Restaurant at 740 W. 63 ${ }^{\text {rd }}$ Street, and the Child Development Lab School at 710 West $65^{\text {th }}$ Street.

## Mission Statement

Kennedy-King College is dedicated to providing high quality, comprehensive, accessible education and training opportunities that respond to changing community needs and that enable individuals to reach their full potential and successfully complete in the global marketplace.

## Regional Accreditation

Kennedy-King College is accredited by The Higher Learning Commission and is a member of the North Central Association, which is located at 230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1413, (800) 621-7440.

## Specialized Accreditation

Child Development program and the Child Development Lab Center are accredited by the National Association for the Education of Young Children (NAEYC).

Dental Hygiene program at Kennedy-King College is accredited by the Commission on Dental Accreditation (CODA).

The Addiction Studies (Mental Health) program is accredited to provide advanced and preparatory alcohol and other drug abuse counselor training by the Illinois Alcohol and Other Drug Abuse Professional Certification Association, Inc. (IAODAPCA).

## Licensure

Basic Nursing Assistant (BNA) program is licensed by the Illinois Department of Public Health (IDPH).

Child Development Lab Center is licensed by the Illinois
Department of Children and Family Services (IDCFS).

## Certification

Automotive Technology program is certified by the National Automotive Technicians Education Foundation, Inc. (NATEF). The program's students are certified by the Automotive Service Excellence (ASE).

## Workforce Development Program Overview

Practical, hands-on skills are the focus of Kennedy-King College's A.A.S. degree programs in Air Conditioning and Refrigeration, Addictions Studies, Automotive Technology, Accounting, Child Development, Dental Hygiene, and Media and Visual Media Communications. Kennedy-King College's Washburne Culinary Institute offers both certificates and the A.A.S. degree in Culinary Arts and Baking and Pastry Arts. Its Dawson Technical Institute features Certificate programs in Construction Technology (Cement Masonry, Carpentry, and Painting), Overhead Electrical Line Worker, Plumbing and Fire Protection.

## Campus Programs <br> malcolm X College

## MALCOLM X COLLEGE



## About Malcolm X College

The first of the City Colleges of Chicago, Malcolm X College was founded as Crane Junior College in 1911. Initially, the College was housed in and served the graduates of Crane High School. In 1933 the College was closed due to the Great Depression. As a consequence of the advocacy of Hull House founder, Jane Addams, and noted attorney, Clarence Darrow, the College reopened the following year. At the request of students and the community, in 1969, the College was renamed in honor of civil rights advocate and orator, Malcolm X, also known as El-Hajj Malik El-Shabazz.

Malcolm X College is a major provider of training for allied health care professionals in Chicago, offering the largest selection of Health Science Degrees and Certificate programs in Cook County. Adjacent to one of the nation's largest medical centers, the College offers students a unique opportunity for clinical affiliations.

## Malcolm X College Locations

Malcolm X College is located on the West Side on 20 acres on West Van Buren Street. The four-story building houses a modern Academic Support Center; a 430-seat, acoustically perfect Bruce K. Hayden Performing Arts Center; the newly renovated Carter G. Woodson Library; and a large physical education center with a gymnasium, swimming pool, dance studios, and weight training center.

## Mission Statement

Malcolm X College, a learning and assessment-centered community college, empowers students of diverse backgrounds and abilities to achieve academic, career, and personal success.

## Regional Accreditation

Malcolm X College is accredited by The Higher Learning Commission and is a member of the North Central Association, which is located at 230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1413, (800) 621-7440.

## Specialized Accreditation

Child Development program and the Child Development Lab Center are accredited by the National Association for the Education of Young Children (NAEYC).

Mortuary Science is accredited by the American Board of Funeral Service Education (ABFSE).

Pharmacy Technology is accredited by the American Society of Health-System Pharmacists ${ }^{\circledR}$ (ASHP).

Physician Assistant program is accredited on probation by the Accreditation Review Commission for Physician Assistant (ARCPA) Education.

Radiologic Technology program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).

Respiratory Care program is accredited by the Commission on Accreditation for Respiratory Care (COARC).

Surgical Technology is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

## Licensure

The Basic Nursing Assistant (BNA) program, Emergency Medical Technician (EMT) program, and Paramedic Technology program are licensed by the Illinois Department of Public Health (IDPH).

Child Development Lab Center is licensed by the Illinois Department of Children and Family Services (IDCFS)

## Certification

Nephrology/Renal Technology program is certified by the Board of Nephrology Examiners for Nursing and Technology (BONENT).

## Workforce Development Program Overview

Malcolm X College offers programs in Clinical Laboratory Science, Emergency Medical Technology, Mortuary Science, Nephrology, Nursing, Paramedic, Pharmacy Technology, Phlebotomy, Physician Assistant, Radiography, Respiratory Care, Sonography, Sterile Processing Technology, and Surgical Technology.

## Olive-Harvey College



## About Olive-Harvey College

Olive-Harvey College began its service to residents of the South Side in the late 1950's with the opening of the Fenger and Southeast campuses of the City Colleges of Chicago. These two campuses were consolidated and renamed Olive-Harvey College in 1970. The main campus of Olive-Harvey College was completed with the opening of a four-level building at $101^{\text {st }}$ Street and Woodlawn Avenue in 1981. The building houses special instructional areas, new state-of-the-art laboratories and computer labs, and a Learning Resource Center, which contains the College's largest open computer laboratory. Physical education facilities include an indoor swimming pool and gymnasium, weight and exercise room, and a newly constructed baseball field, all located on a landscaped campus.
The College is named in honor of Private First Class Milton Lee Olive, III (1946-1965), who was posthumously awarded the Congressional Medal of Honor by President Lyndon Johnson and Specialist Four Carmel Bernon Harvey, Jr. (1946-1967) who was awarded the Congressional Medal of Honor by President Richard Nixon. Both Olive and Harvey exhibited exceptional valor during combat in Vietnam.

## Olive-Harvey College Locations

The Olive-Harvey College campus is on 67 acres at 10001 South Woodlawn Avenue. Courses are also offered at the South Chicago Learning Center, which is located at 3055 East $92^{\text {nd }}$ Street.

## Mission Statement

Olive-Harvey College provides high quality educational programs and support services and is dedicated to student learning and academic and career success through instructional excellence and responsiveness to student, business, and community needs.

## Regional Accreditation

Olive-Harvey College is accredited by The Higher Learning Commission and is a member of the North Central Association, which is located at 230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1413, (800) 621-7440.

## Specialized Accreditation

Child Development program and the Child Development Lab Center are accredited by the National Association for the Education of Young Children (NAEYC).

Middle College Alternative High School is accredited by the North Central Association, Commission on Accreditation and School Improvement (NCA/CASI).

## Licensure

Basic Nursing Assistant (BNA) program is licensed by the Illinois Department of Public Health (IDPH).
The Commercial Truck Driver License (CDL) program is licensed by the Illinois Secretary of State.

The Real Estate program is licensed by the Illinois Department of Financial and Professional Regulation (IDFPR).
Child Development Lab Center is licensed by the Illinois
Department of Children and Family Services (IDCFS).

## Certification

None

## Workforce Development Program Overview

Olive-Harvey College offers the Supply Chain Management program, which prepares students for employment in warehouse and distribution. (The Supply Chain Management program is one of the Greater Chicago Workforce Board's targeted Critical Skills Shortage career clusters.) Olive-Harvey College also offers certificate programs in Basic Nursing Assistant, Emergency Medical Technician (EMT), Computerized Medical Billing and Coding, Pharmacy Technician, and Truck Driving training (CDL).

## CAMPUS PROGRAMS <br> harry S Truman College

## Harry S Truman College



## About Harry S Truman College

In 2011, Truman College celebrates its 55th anniversary. The college began in 1956 as an unnamed "evening college" at Amundsen High School on the northwest side of Chicago. In 1961, it moved to its own building, a former elementary school, and was named Mayfair College after the school and the surrounding neighborhood. In 1976, the college moved to its current Uptown location and was going to be called Northeast Community College until Frank Sullivan, Mayor Richard J. Daley's press secretary, suggested naming it after the $33^{\text {rd }}$ president, whose 1947 Commission on Higher Education greatly expanded the concept of the community college. Local residents, afraid the college would attract outsiders and offer them nothing, painted a mural on the wall of the 'L' station facing the college. It depicts an array of faces from all races and includes the words: "This college must be for everyone." Those words guide the college to this day

In the fall of 2010, the College completed construction on the new Larry McKeon Administrative Building. It includes a new Student Services Center, which is energy efficient, and a new nine-level Parking Deck, which will accommodate 1,100 parking spaces.

## Harry S Truman College Locations

The Truman College campus is located at 1145 West Wilson Avenue. Courses and programs are also offered at the Truman Technical Center, the Lakeview Learning Center, and the Truman Middle College Alternative High School

## Mission Statement

Truman College is dedicated to delivering high quality, innovative, affordable, and accessible educational opportunities and services that prepare students for a rapidly changing and diverse global economy.

## Regional Accreditation

Truman College is accredited by The Higher Learning Commission and is a member of the North Central Association, which is located at 230 South LaSalle Street, Suite 7-500, Chicago, Illinois 606041413, (800) 621-7440.

## Specialized Accreditation

Child Development program and the Child Development Lab Center at Truman College are accredited by the National Association for the Education of Young Children (NAEYC).

Middle College Alternative High School is accredited by the North Central Association, Commission on Accreditation and School Improvement (NCA/CASI).

The Nursing (LPN/RN) program is accredited by the National League for Nursing Accrediting Commission (NLNAC).

## Licensure

Basic Nursing Assistant (BNA) program is licensed by the Illinois Department of Public Health (IDPH).

Cosmetology program is licensed by the Illinois Department of Financial and Professional Regulation (IDFPR).

Child Development Lab Center is licensed by the Illinois Department of Children and Family Services (IDCFS).

The Real Estate program is licensed by the Illinois Department of Financial and Professional Regulation (IDFPR).

## Certification

Automotive program is certified by the National Automotive Technicians Education Foundation, Inc. (NATEF). The program's students are certified by the Automotive Service Excellence (ASE).

## Workforce Development Program Overview

Founded in 1964, Truman College's Nursing program is the oldest associate-degree granting nursing program in the State of Illinois. Over the last eight years, the nursing program's NCLEX (National Council for Licensing Examination) pass rates have exceeded state and national NCLEX exam score averages. About 14,000 students annually enroll in Truman College's Adult Education program, the largest in Illinois. Truman College has the only A.A.S. Biotechnology program in the State. Other career programs include Automotive Technology, Child Development, Cosmetology, and Networking Systems and Technologies.

# CAMPUS PROGRAMS harold Washington College 

## Harold WashingTon College



## About Harold Washington College

Harold Washington College was first established as Loop College in fall 1962. It was located on East Lake on the $11^{\text {th }}$ floor of the former University of Chicago/DePaul Center and opened its doors to 250 students. In January 1983, the College obtained its own building at the Wabash and Lake site. Constructed with local funds, the new building served as the home of the City Colleges of Chicago's District Office, the Chicago City-Wide College, and Loop College for many years.

Loop College was renamed Harold Washington College in 1987 to honor Chicago's first African-American mayor, Harold Washington. On April 19, 1988, the College was officially dedicated in memory of Mayor Harold Washington. Mayor Washington was a City Colleges of Chicago alumnus and was a strong advocate of the importance of community. That advocacy was illustrated in his commencement address at Loop College on May 10, 1984: "It is from the diversity of city life and the variety of cultures and backgrounds it offers, that we find the common threads that bring us together to form a college community." A major renovation of the building in 2003-2005 provided eleven floors of space for state-of-the art classrooms, community rooms, and science and computer labs to accommodate Harold Washington College's enrollment of over 19,000 students.

## Harold Washington College Locations

Harold Washington College is located in the heart of Chicago's downtown loop between State and Wabash at 30 E. Lake Street. It is accessible by bus and all CTA trains.

## Mission Statement

Harold Washington College is a learning-centered urban institution of higher education offering accessible and affordable opportunities for academic advancement, career development, and personal enrichment. The College is committed to upholding high institutional and academic standards and to understanding and improving student learning.

## Regional Accreditation

Harold Washington College is accredited by The Higher Learning Commission and is a member of the North Central Association, which is located at 230 South Lasalle Street, Suite 7-500, Chicago, IL 60604-1413 (800) 621-7440.

## Specialized Accreditation

The Business programs are accredited by the Association of Collegiate Business Schools and Programs (ACBSP).
The Child Development programs are accredited by the National Association for the Education of Young Children (NAEYC).

## Licensure

Basic Nursing Assistant (BNA) program is licensed by the Illinois Department of Public Health (IDPH).
Food Service Sanitation is licensed by the City of Chicago, Department of Health.
ProfessionalDevelopmentforSocialWorkersislicensed bythellinois Department of Financial and Professional Regulations (IDFPR).

## Certification

Addiction Studies (Mental Health) program is certified by the Illinois Alcohol and Other Drug Abuse Professional Certification Association (IAODAPCA).
Fire Science and Technology program is certified by the Chicago Fire Department.

## Training Partnership

Public Chauffeur Training Institute is a partnership training program with the City of Chicago, Department of Business Affairs and Consumer Protection.

## Workforce Development Program Overview

Harold Washington College offers the Advance Certificate and A.A.S. degree program in Hospitality for careers in management of foods and beverages, front office/rooms division, business front office, housekeeping, and employee training. Harold Washington College's Public Chauffeur Training Institute is the largest jobgenerating program in the City, training all prospective taxi and limousine drivers for the city's licensing exams.

## Campus Programs <br> Wilbur Wright College

## WILBUR WRIGHT COLLEGE



## About Wilbur Wright College

Wilbur Wright College was established in 1934 at 3400 North Austin and moved to its present location at North Narragansett in 1993. Wright's 22-acre, park-like campus features five architecturally significant, interconnected buildings designed by Bertrand Goldberg, an award winning architect whose work includes the Marina Towers in downtown Chicago.

The College is named for Wilbur Wright who "along with his brother Orville, launched into both history books and legend with the first ever manned powered flight... in 1903. In 1965 he was selected for the Hall of Fame for Great Americans" (http://wright.nasa.gov/ wilbur.htm).

## Wilbur Wright College Locations

Located on Chicago's Northwest Side, Wilbur Wright College is located at 4300 Narragansett Avenue at the corner of Montrose Avenue and Narragansett Street. Since 1995, Wright College's Humboldt Park Vocational Education Center, which is located at 1645 North California Street, has offered job training and educational programs for the Humboldt Park and West Town communities.

## Mission Statement

Wilbur Wright College is learning-centered multi-campus institution of higher education offering students of diverse backgrounds, talents, and abilities a quality education leading to baccalaureate transfer, career advancement, and personal development.

## Regional Accreditation

Wilbur Wright College is accredited by The Higher Learning Commission and is a member of the North Central Association, which is located at 230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1413, (800) 621-7440.

## Specialized Accreditation

Accounting, Computer Information Sciences, Management/ Marketing, and Paralegal programs are accredited by theAssociation of Collegiate Business Schools and Programs (ACBSP).

Occupational Therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE).

Radiologic Technology program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).

## Licensure

Basic Nursing Assistant (BNA) program is licensed by the Illinois Department of Public Health (IDPH).

## Certification

None

## Workforce Development Program Overview

Wilbur Wright College offers the A.A.S. degree in such highdemand jobs as Architectural Drafting, Criminal Justice, Emergency Management, Environmental Technology, Occupational Therapy, Paralegal, and Radiography. In addition to Adult Education and Continuing Education programs, Wilbur Wright College's Humboldt Park Vocational Education Center offers Certificate programs in Computerized Numerical Control, Industrial Maintenance, Information Processing, Basic Nursing Assistant, and Practical Nursing.


## ACADEMIC CALENDAR

| City Colleges of Chicago - College Credit Academic Calendar $2011{ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: |
| SPRING 2011 TERM | REGULAR 16 WEEK SESSION | 12 WEEK SESSION ${ }^{2}$ | 8 WEEK SESSION ${ }^{2}$ |
| Early online registration ${ }^{3,4}$ | ---------- November 8, 2010 ----------- |  |  |
| Early on campus registration ${ }^{3,4}$ | ---------- November 22, 2010 ---------- |  |  |
| Open registration | January 3 | January 31 | February 28 |
| Martin Luther King Holiday | ---------- January 17, 2011 ---------- |  |  |
| First day of class | January 18 | February 14 | March 14 |
| President's Day Holiday | ----------- February 21, 2011 ---------- |  |  |
| Complete financial aid appication for next academic year ${ }^{5}$ | ---------- NO LATER THAN March 1, 2011 ---------- |  |  |
| Spring Break | ----------- April 18-24, 2011 ----------- |  |  |
| Last day for student initiated withdrawals | April 25 | April 25 | April 29 |
| Spring 2011 session ends | ----------- May 14, 2011 ----------- |  |  |


| SUMMER 2011 TERM | REGULAR SESSION | MINI SESSION ${ }^{2}$ |
| :---: | :---: | :---: |
| Early online registration ${ }^{2,3}$ | ---------- April 4, 2011 ---------- |  |
| Early on campus registration 3 3,4 | ---------- April 25, 2011 ---------- |  |
| Open registration | ---------- June 6, 2011 ---------- |  |
| First day of class | ---------- June 8, 2011 ---------- |  |
| Independence Day Holiday | ---------- July 4, 2011 ---------- |  |
| Last day for student initiated withdrawal | July 18 | July 6 |
| Summer 2011 session ends | July 30 | July 16 |


| FALL 2011 TERM | REGULAR 16 WEEK SESSION | 12 WEEK SESSION² | 8 WEEK SESSION ${ }^{2}$ |
| :---: | :---: | :---: | :---: |
| Early online registration ${ }^{3.4}$ | ----------- April 4, 2011 ---------- |  |  |
| Early on campus registration ${ }^{3,4}$ | ---------- April 25, 2011 ----------- |  |  |
| Open registration | August 8 | September 6 | October 3 |
| First day of class | August 22 | September 19 | October 17 |
| Labor Day Holiday | ---------- September 5, 2011 ---------- |  |  |
| Last day for student initiated withdrawals | November 14 | November 21 | November 28 |
| Thanksgiving Holiday (Thursday \& Friday) | ---------- November 24-25, 2011 ---------- |  |  |
| Fall 2011 session ends | ---------- December 10, 2011 ---------- |  |  |

## NOTES:

1. College Credit Academic Calendar is subject to change. Please contact the college for details.
2. Sessions and course offerings: not all courses are offered each session, nor are all sessions offered at each college. Please contact the college for details.
3. New Students: all new students are strongly encouraged to complete the registration process as early as possible, preferably prior to end of summer for fall entering students. The registration process for new students includes placement testing, college orientation, financial aid processing, career advising and academic program selection, and initial course selection. Please see your College Advisor to begin.
4. Continuing Students: continuing students are strongly encouraged to complete the registration process as early as possible to ensure the best course and schedule availability. Please see your College Advisor prior to registering to discuss your career and education goals, academic program, graduation requirements and your progress toward graduation, course selection, and, if applicable, transfer.
5. Financial aid: students are strongly urged to apply for financial aid (www.fafsa.gov) as early as possible (preferably by March 1st) for the academic year beginning in the fall. Please contact the financial aid office for details.

## Student Services

The Student Services team at your college is committed to providing our diverse student population with a broad range of quality services to address students' academic, financial, career, and life goals. Your Student Services team can also refer students to external support agencies when needed. Some of the many services offered by your Student Services team are listed below, and are subject to change.

## ACADEMIC SUPPORT SERVICES

## Tutoring

Tutoring Centers offer one-on-one tutoring, study groups, and computerized tutorial sessions. Students can attend workshops to learn how to improve study skills, time management, test taking, or note taking.

## College Advising

Every City College provides a cadre of professional College Advisors available and eager to assist students in exploring their career interests, setting clear educational and career goals, and enrolling in appropriate courses to ensure they meet their chosen program of study leading to successful program completion and graduation. College Advisors are available to guide students in accessing necessary support services at the college or in the surrounding community to support their academic success.

## CTA U-Pass

Through a partnership with the Chicago Transit Authority (CTA), the City Colleges offers full time enrolled credit students the U-Pass, which enables unlimited ridership on the CTA for the duration of the semester in which they are enrolled full time. Students MUST maintain full time enrollment status in order to retain their U-Pass privileges. Contact the Office of Dean of Students at the college for more information.

## Credit for Prior Learning or Life Experiences

College credit may be granted for specialized courses, general education courses, or elective courses through the evaluation and/or assessment of appropriate prior learning or life experiences. The City Colleges of Chicago may grant credit for college-level knowledge or skills acquired outside the classroom through Credit by Examination or Credit by Evaluation. Grades will not be awarded and credit earned will not factor into Grade Point Average (GPA). For more information, see your College Academic Advisor or refer to the Student Policy Manual:
http://www.ccc.edu/Files/studentpolicymanual.pdf.

## Disabilities

Disability Access Centers (DAC) at the City Colleges of Chicago are dedicated to meeting the special needs of students with disabilities and assisting them in their academic pursuits.

No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of DAC services, programs or activities, or be subjected to discrimination. City Colleges of Chicago's goal is to promote equality of opportunity and full participation in our services, programs and activities. We will endeavor to provide reasonable modifications and/or accommodations to qualified individuals in accordance with the Americans with Disabilities Act (ADA) of 1990, Section 504 of the Rehabilitation Act of 1973, the ADA Amendment Act of 2008, and all pertinent federal, state and local anti-discrimination laws.

Students who have a need for disability accommodations or modifications are responsible for requesting such accommodation or modification, and are responsible for providing all requisite documentation to verify eligibility to the Disability Access Centers. DAC will make every effort to accommodate qualified students with disabilities as required by law.

## Disability Access Centers:

Daley College: 773-828-7578
Harold Washington College: 312-553-6096
Kennedy-King College: 773-602-5278
Malcolm X College: 312-850-7088
Olive-Harvey College: 773-291-6345
Truman College: 773-907-4725
Wright College: 773-481-8015

## FINANCIAL AID

The purpose of the financial aid program at the City Colleges of Chicago is to provide financial assistance to students as they pursue their educational goals. The program is committed to the philosophy that eligible students should not be denied access to higher education because of a lack of financial resources.

City Colleges of Chicago offers a variety of financial aid to assist students in meeting the costs of their education. Students are encouraged to stop by the Financial Aid Office to obtain information on eligibility requirements and necessary application forms.

## Apply for Financial Assistance:

Students are required to complete the Free Application for Federal Student Aid (FAFSA) online. http://www.fafsa. ed.gov/. Filing online is fast and convenient. Any errors are revealed and highlighted for correction before your FAFSA is submitted, which leads to easier processing and reduced need to submit additional documentation.

## Student Services

## Grant Assistance for Students:

The FAFSA is the application for all need-based grant programs at the City Colleges of Chicago. The City Colleges of Chicago offers grants, which are not subject to repayment such as: the Federal Pell Grant. The Pell Grant program is funded and administered by the U.S. Department of Education. To qualify for a Pell Grant, students must demonstrate significant financial need. The U.S. Department of Education determines students' eligibility for the Pell Grant, based on the information indicated on their FAFSA.

## Supplemental Educational Opportunity Grant (SEOG)

The Federal SEOG is a campus-based program. Students with exceptional financial need are given priority for these limited funds. SEOG is awarded to students who qualify for a Federal Pell Grant.

## State of Illinois Monetary Award Program (MAP) Grant

MAP grants are awarded to Illinois residents attending instate colleges. Illinois residents apply for the MAP grant by submitting a FAFSA. The award is restricted to tuition and mandatory fees. Students are encouraged to apply early to increase eligibility to receive these funds.

## Student Employment Program

The Federal Work Study (FWS) program is a federally funded, campus-based program offering employment to students demonstrating financial need. FWS employees are paid at least the current federal minimum wage and receive a paycheck every two weeks.

## Federal Loan Program

As a part of the Health Care and Education Affordability Reconciliation Act of 2010, City Colleges of Chicago is now a participant in the William D. Ford Federal Direct Student Loan (Direct Loan) Program.
Direct Loans are low-interest loans for students and parents to help finance the cost of education at the post-secondary level. Under the Direct Loan Program, students will work with the Financial Aid Office to obtain Federal Stafford Loans or PLUS Loans from the U.S. Department of Education, rather than from private banks and credit unions.

If a financial need is demonstrated, the government will pay the interest on a student's subsidized loan. Students who do not demonstrate a financial need will be responsible for interest from the day the unsubsidized loan is disbursed. Both the subsidized and unsubsidized loans are eligible for deferred payment while the student is enrolled at least halftime.

Students are strongly encouraged to consult with a Financial Aid Advisor. The Financial Aid Office staff will help coordinate scholarships that are available to students based on academic excellence and other criteria to ensure that students are maximizing their financial assistance.

## Scholarships

A wide variety of scholarhships are available by visiting www.ccc.edu/scholarships.

## ACADEMIC POLICIES

## Grade Designations

Grades are issued to degree-seeking students to apply towards graduation and are recorded on students' permanent academic record, or transcript, and are used to calculate students' grade point average (GPA). Grades awarded by the City Colleges of Chicago for Credit and Skills courses are: A=Excellent; B=Good; C=Average; D=Minimum Passing; $\mathrm{F}=$ Failure.

Grading for Foundational Studies and Continuing Education courses are: S=Satisfactory and F=Failure. Grading for Adult Education is: $\mathrm{P}=$ Completed all course and level requirements and can take next course at next level; R=Completed all course requirements; however more work is need at this level; $F=$ Failed to meet the requirements of the course.

## Graduation Requirements

To be eligible for graduation in all credit degree and certificate programs, students must earn a grade of "C" or better in all courses used to satisfy core curriculum and/or general education requirements and hold a minimum cumulative GPA of 2.0. Elective courses with a "D" final grade may count towards graduation. This policy is effective for all students entering or returning to the City Colleges of Chicago after May 1, 1998 (Board Report \#20582, adopted 5-9-98).

## Human Diversity Requirement

At least one course must meet the State of Illinois' Human Diversity requirement. Students should meet with a college Academic Advisor for course selection.

## Residency Requirement

All students must complete 21 credit hours of residency at the City Colleges of Chicago. (Special consideration may be given on a case by case basis by the College President.) The student's degree will be awarded by the college where 15 of the last 21 credit hours were earned.

## Foreign Language Requirement

EFFECTIVE FALL 2009: All students entering, or returning to the City Colleges of Chicago after a two (2) year break from taking courses, seeking an Associate of Arts (A.A.) degree are required to demonstrate proficiency in a language that has a recognized literature or culture and that is offered by the City Colleges of Chicago. The level of proficiency must be equivalent to that of successful completion of a second semester language course.

## INTERNATIONAL STUDENTS

International students are warmly welcomed to continue their studies at the City Colleges of Chicago. Whether you decide to seek a Liberal Arts Education or pursue a career program to acquire work skills, the City Colleges of Chicago can meet your educational needs.

In addition to completing an application to City Colleges of Chicago and providing required transcripts or test scores, International students must also submit the necessary documents for the U.S. Citizenship \& Immigration Services (USCIS).

Please note: the application review and processing take time, so it is essential that students apply early. Please allow a minimum of 30 days for review/evaluation.

International (F-1 holders) must identify themselves early in the application process for proper advisement of the Immigration \& Naturalization Services transfer procedures. To complete the transfer procedure an International student must provide:

- \$100.00 non-refundable charge for I-20 application processing for regular college-level enrollments. (Upon registration, $\$ 50.00$ will be credited toward tuition.)
- TOEFL SCORE 61 (internet-based), 173 (computerbased), 500 (paper based). (If you are already in the United States, you can take a placement exam at the City Colleges in place of the TOEFL.)
- Atransfer permission letterfrom the lastschool attended in the U.S. (If applicable)
- An Affidavit of Support (Form I-134) from sponsor, guardian or parent
- Bank and tax documents proving availability of funds.
- Passport and recent photo
- l-94 departure record
- Student Visa
- Proof of Medical Insurance (required each semester)
- Provide a copy of I-20 that Homeland Security stamped and approved, if applicable

For more information contact the Office of Student Affairs - International Students: 312-553-3441 orvisitourwebsite at: http://ccc.edu/isa/index.shtml.

## PLACEMENT EXAMINATIONS

City Colleges of Chicago utilizes the computerized COMPASS exams (reading, writing, math \& e-Write), paper \& pencil ASSET, and ACT scores for appropriate placement into courses to support students' academic success. All students new to the City Colleges are required to take the complete battery of placement exams, unless they show proof of having successfully completed appropriate college level courses, or opt to use ACT scores that are less than two years old.

## STUDENT ACTIVITIES

Many opportunities for students to become engaged in college life are available at each college, including involvement in honor societies such as: Phi Theta Kappa, Psi Beta, and Sigma Kappa Delta. Students are encouraged to seek out student organizations to enhance their college experience.

## Student Government Association

Student Government Association (SGA) is the main vehicle for student input regarding activities of the college and in policies affecting student life. The purpose of the SGA members (officers, senators, and appointed representatives) is to represent themselves and the City Colleges of Chicago student body in the most positive and professional manner possible, recognizing that they are always working in the best interest of the City Colleges of Chicago community.

Student government officers and members are elected in the spring of each year and will remain in office for one year (May 31 - May 30), provided they are enrolled for a minimum of six (6) credit hours each semester and maintain a 2.3 cumulative grade point average. A student may be a candidate for, and elected to, a student government office in consecutive years, provided the student meets the eligibility criteria.

In order to provide complete representation of all CCC student governments, each student government president should attend all regularly scheduled and special SGA meetings called by the CCC District SGA Council (DSGAC) chairperson. All student government officers and members are welcome to attend the DSGAC meeting; however, only the President or their proxy are eligible to vote.

## TEXTBOOK RENTAL

City Colleges of Chicago has an agreement with Follett and Beck's bookstores to offer rental textbook programs to assist students with offsetting the costs of textbooks. For more information, students should contact the Office of Student Services.

## STUDENT SERVICES

## VETERANS SERVICES

City Colleges has a long history of providing education to veterans who are seeking to gain new skills and transform skills learned in the military for use in the civilian world. City Colleges are committed to making the college educational experience rewarding for our veterans. Special thanks to all who served our country to protect our cherished freedom.

If you are a Veteran and/or dependant of a Veteran, you may be eligible for grants and/or scholarships, such as the Illinois Veteran Grant, Illinois National Guard, Missing in Action/ Prison of War (MIA/POW) Scholarship and many other educational benefits. Consult with your Financial Aid staff.

## RESIDENCY

Enrollment of students is classified, for the purpose of determining fees and tuition, as in-district, out-of-district, out-of-state, or international students. Preferred documents which can be used for residency verification include:

- Driver's License
- Voter Registration Card
- Copy of Lease
- Utility or Home Telephone Bill
- State of Illinois Identification Card
- Mexican Consular ID
- Official ISIR


## Dependent Registrants may present the following:

- State of Illinois Identification Card
- Utility or Home Telephone Bill
- Copy of Lease in Parents' Name(s) at Student's Address


## In-District Students

To qualify as in-district, students must reside within the City of Chicago for at least 30 days immediately prior to the date established by the District for classes to begin for the term.

## Out-of-District Students

Students who reside in Illinois but outside Chicago for at least 30 days prior to the date established by the District for classes to begin, are considered out-of-district students. Students will be required to furnish legal evidence proving residence.

Out-of-district students, who want to obtain a degree or certificate offered by one of the City Colleges of Chicago, but not their own district community college, should refer to the Tuition Chargeback policy below and at:
http://www.ccc.edu/files/studentpolicymanual.pdf.
Out-of-State Students
Students who legally reside outside of Illinois are considered out-of-state students.

## FEES AND CHARGES

1. Miscellaneous Fees: Fees that are assessed to students are determined by each college.
2. Required Fees: The following fees associated with course registration are required. They include, but are not limited to:

- Registration Fees
- Activity Fees
- Partial Payment Fees
- CDL Licensing Fees
- Lab Fees

3. Non-Refundable Fees: The following fees associated with course registration are non-refundable. They include, but are not limited to:

- Registration Fees
- Partial Payment Fees
- Activity Fees (activity fees may be refunded if courses are dropped before the term begins)


## Financial Obligation

Students are expected to pay when enrolling. Acceptable payment includes cash, check, credit/debit cards, or enrollment in NBS e-Cashier or a Financial Aid Deferment. Failure to make appropriate payment arrangements within two business days of enrollment will result in the initiation of drop processing of all enrolled classes. Whenever possible, students dropped for non-payment will be notified by email or by phone.

## Transcript Charges

- First transcript requested is complimentary, unless same day service is requested.
- $\$ 10.00$ per transcript for same day service.
- \$5.00 charge for each transcript issued after first transcript, including Continuing Education transcripts.


## Other Charges

- \$100.00 non-refundable charge for I-20 application processing for regular college-level enrollments.
- $\$ 40.00$ per check returned for non-sufficient funds.
- $\$ 5.00$ for student I.D. card replacement.

Tuition and fees are subject to change. Please refer to http://www.ccc.edu/student/Tuition.asp for the most current tuition and fee information.

## Student Services

## Tuition Chargeback

Chicago residents who wish to enroll in a degree program not available at any of the City Colleges of Chicago may apply for tuition assistance to attend another public community college in Illinois where the desired certificate or degree program is offered. Applications are available online, please refer to http://www.ccc.edu/student/files/chargeback_ application628.pdf. Applications must be received by the City Colleges of Chicago 30 days prior to the beginning date of the semester or term of enrollment at the college the student plans to attend.

Non-Chicago residents who plan to enroll in a college program at the City Colleges of Chicago which is not available at a community college in their district, should apply for tuition assistance at their local community college. If no community college exists in their district, residents should go to their high school district to apply.

## Tuition Waivers

Senior Citizens (65 years of age or older) - Senior Citizens may be eligible for a tuition waiver for the first six regular college credits during open registration, if seats are available. Proof of senior citizen status is a birth certificate, driver's license, or RTA Special Users' Pass, and must be presented at time of registration. All hours above six will be paid by the enrolled senior citizen student at the regular tuition rate per semester/term.

## Public Aid Recipients

Public Aid recipients [categories beginning with (0)] may apply for tuition waivers only after they apply for Financial Aid and have been determined as Financial Aid ineligible. Public Aid recipients may be eligible for a tuition waiver of up to six credit hours. All hours above six will be paid by the enrolled public aid recipient at the regular tuition rate per semester/term.

## WITHDRAWALS AND REFUNDS

Refunds for Dropped Classes Within First Seven Days
Students may drop courses during the first seven days from the start date of class for regular sessions (or equitable time period for special sessions) without incurring a penalty. If processed during the first seven days from the start of class in a regular session during the fall and spring terms, drop refunds for student-initiated withdrawals (WTH) are available at one hundred percent of tuition and applicable fees only. (100\% REFUND WITHIN FIRST 7 DAYS OF A REGULAR SESSION.)

THERE WILL BE NO REFUNDS ALLOWED AFTER THE FIRST SEVEN DAYS OF THE START OF CLASSES FOR A REGULAR SESSION.

Failure to withdraw may result in mandatory payment of tuition/fees and/or a failing grade.

## Refunds - No-Show Withdrawal (NSW)

Students who do not attend the first two class sessions will be withdrawn from the class by the instructor and issued a No-Show Withdrawals (NSW). No refunds of tuition and/ or fees will be issued for classes with (NSW). Students will be held accountable for the payment of tuition and fees of NSW courses. Federal financial aid cannot be used to cover the cost of NSW classes.

Students who do not attend the first class session of a course which meets only once per week will be considered a No-Show (NSW).

## Refunds - Center for Distance Learning Online with Video Component Courses (TW)

Center for Distance Learning (CDL) courses combine Internet-based instruction with video and are accessed on WYCC-TV Channel 20. Refunds will not be issued for lack of access to WYCC Channel 20.

NOTE: Some areas of Chicago and surrounding suburbs DO NOT have access to WYCC Channel 20.

Please refer to http://www.ccc.edu/student/Tuition.asp for the most current refund policies prior to enrolling in CDL/ WYCC courses.

## Programs of Study

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| BACCALAUREATE/TRANSFER \& GENERAL STUDIES |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| 0210 | Associate in Arts | AA | 62 | x | $x$ | x | x | x | x | x |
| 0211 | Associate in Science | AS | 64 | x | x | x | x | x | x | x |
| 0100 | Associate in Engineering Science | AES | 64 | x | x |  |  |  | x | x |
| 0217 | Associate in Fine Arts - Art (Education) | AFA | 60 |  | x |  |  |  |  |  |
| 0216 | Associate in Fine Arts - Art (Studio) | AFA | 61 |  | x |  |  |  | x |  |
| 0208 | Associate in Fine Arts - Music Education | AFA | 63 |  | x |  |  |  |  |  |
| 0205 | Associate in Fine Arts - Music Performance | AFA | 68 |  | x |  |  |  |  | x |
| 0209 | Associate of Arts in Teaching - Early Childhood Education | AAT | 63 |  | x |  |  |  |  |  |
| 0212 | Associate of Arts in Teaching - Secondary Math | AAT | 62 |  |  |  |  |  | x |  |
| 0203 | Associate in General Studies | AGS | 60 | x | x | x | x | x | $x$ | x |
| AGRICULTURE, FOOD \& NATURAL RESOURCES |  |  |  |  |  |  |  |  |  |  |
| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| 0160 | Environmental Technology | AAS | 68 |  |  |  |  |  |  | x |
| 0161 | Environmental Technology | BC | 18 |  |  |  |  |  |  | x |
| 0241 | Horticulture | AAS | 63 |  | x |  |  |  |  |  |
| 0320 | Horticulture | BC | 18 |  | x |  |  |  |  |  |
| 0828 | Horticulture (Sustainable Urban) | AC | 31 | x |  |  |  |  |  |  |
| ARCHITECTURE \& CONSTRUCTION |  |  |  |  |  |  |  |  |  |  |
| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| 0117 | Air Conditioning \& Refrigeration | AAS | 62 |  |  | x |  |  |  |  |
| 0118 | Air Conditioning \& Refrigeration | AC | 36 |  |  | x |  |  |  |  |
| 0153 | Air Conditioning - Commercial Refrigeration | BC | 17 |  |  | x |  |  |  |  |
| 0177 | Air Conditioning - Domestic Refrigeration | BC | 17 |  |  | $x$ |  |  |  |  |
| 0178 | Air Conditioning - Heating | BC | 18 |  |  | x |  |  |  |  |
| 0132 | Architectural CAD | BC | 9 |  |  |  |  |  |  | $x$ |
| 0122 | Architectural Drafting | AAS | 63 |  | x |  |  |  |  | $x$ |
| 0124 | Architectural Drafting | BC | 16 |  | x |  |  |  |  | x |
| 0760 | Bricklayer | BC | 16 |  |  | x |  |  |  |  |
| 0159 | Building Energy Technologies | BC | 21 |  |  |  |  |  |  | x |
| 0144 | CAD Technology | AAS | 60 |  |  |  |  |  | x |  |
| 0138 | CAD Technology | AC | 34 |  |  |  |  |  | $x$ |  |
| 0139 | CAD Technology | BC | 16 |  |  |  |  |  | x |  |
| 0780 | Carpentry | AC | 37 |  |  | x |  |  |  |  |
| 0750 | Communications Technology | AAS | 65 | x |  |  |  |  |  |  |
| 0759 | Concrete Masonry | BC | 16 |  |  | x |  |  |  |  |
| 0775 | Construction Carpentry | BC | 16 |  |  | $x$ |  |  |  |  |
| 0375 | Construction Management | AAS | 65 |  |  | x |  |  |  |  |
| 0768 | Construction Painter | BC | 16 |  |  | x |  |  |  |  |
| 0752 | Electrical Construction Technology | AAS | 65 | x |  |  |  |  |  |  |
| 0766 | Electrical Line Worker (Overhead) | AC | 30 |  |  | x |  |  |  |  |
| 0163 | Mechanical Technology CAD | BC | 9 |  |  |  |  |  |  | x |
| 0753 | Plumbing \& Fire Protection | BC | 16 |  |  | x |  |  |  |  |
| 0758 | Welder (Combination) | BC | 16 |  |  | x |  |  |  |  |
| 0827 | Welding (Industrial Technology) | BC | 13 | x |  |  |  |  |  |  |

## Programs of Study

Program/Plans by CLUSTER a.as. (associate appled science) ac. (Advanced certificate) b.c. (Basic certificate)

| ARTS, A/V TECHNOLOGY \& COMMUNICATIONS |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| 0350 | Digital Multimedia Design | AAS | 67 |  | x |  |  |  |  |  |
| 0351 | Digital Multimedia Design | AC | 36 |  | $x$ |  |  |  |  |  |
| 0352 | Digital Multimedia - Video \& Sound | BC | 18 |  | x |  |  |  |  |  |
| 0353 | Digital Multimedia - 3D Graphics | BC | 21 |  | x |  |  |  |  |  |
| 0354 | Digital Multimedia - Interactive Media | BC | 18 |  | x |  |  |  |  |  |
| 0083 | Media Communications | AAS | 63 |  |  | x |  |  |  |  |
| 0093 | Music Business | BC | 21 |  | x |  |  |  |  |  |
| 0094 | Music Technology | BC | 26 |  | x |  |  |  |  |  |
| 0085 | Theater Arts | AAS | 62 |  |  | x |  |  |  |  |
| 0086 | Theater Technology | AC | 35 |  |  | x |  |  |  |  |
| 0165 | Visual Media Communications | AAS | 60 |  |  | x |  |  |  |  |
| 0166 | Visual Media Communications | AC | 30 |  |  | x |  |  |  |  |
| 0194 | Vis Med Com - Animation | BC | 15 |  |  | x |  |  |  |  |
| 0192 | Vis Med Com - Page Layout | BC | 15 |  |  | x |  |  |  |  |
| 0193 | Vis Med Com - Web Page Design | BC | 15 |  |  | x |  |  |  |  |
| BUSINESS, MANAGEMENT, ADMINISTRATION \& FINANCE |  |  |  |  |  |  |  |  |  |  |
| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| 0001 | Accounting | AAS | 60 | x | x | x |  | x | x | x |
| 0002 | Accounting | BC | 17 | $x$ | x | $x$ |  | x | x | x |
| 0003 | Accounting | AC | 30 | x | x | x |  | x | x | x |
| 0861 | Bank Teller (Professional) | BC | 17 |  |  |  |  |  |  | x |
| 0042 | Business Admin - General Business | AC | 30 | x |  |  |  |  | x |  |
| 0388 | Finance | AC | 31 |  |  |  |  |  |  | x |
| 0303 | Library Technical Assistant | AAS | 60 |  |  |  |  |  |  | x |
| 0330 | Library Technical Assistant | BC | 12 |  |  |  |  |  |  | x |
| 0021 | Management/Marketing | AAS | 62 | x | x | x |  | x | x | x |
| 0022 | Management/Marketing | AC | 35 | x | x | x |  | x | x | x |
| 0023 | Management/Marketing | BC | 18 | x | x | x |  | x | x | x |
| 0883 | Office Specialist | BC | 20 | x |  |  |  |  |  |  |
| 0882 | Real Estate Broker | BC | 5 | x |  |  |  |  |  |  |
| 0812 | Real Estate Sales | BC | 2.5 |  |  |  |  |  | x |  |

## Programs of Study

## 

| EDUCATION \& TRAINING |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| 0276 | Child Development - Bilingual Teacher Aide | AAS | 61 |  | x |  |  |  |  |  |
| 0280 | Child Development - Elementary Education | AAS | 61 |  | x | x |  |  |  |  |
| 0284 | Child Development - Elementary Education | AC | 34 |  | x | x |  |  |  |  |
| 0300 | Child Development - IDC Level I | AC | 41 | x |  |  |  |  |  |  |
| 0331 | Child Development - Infant Toddler Care | AAS | 62 |  |  | x |  |  |  |  |
| 0332 | Child Development - Infant Toddler Care | AC | 32 |  |  | x |  |  |  |  |
| 0278 | Child Development - Pre-School Education | AAS | 62 | x | x | x | x | x | x |  |
| 0282 | Child Development - Pre-School Education | AC | 32 | x | x | x | x | x | x |  |
| 0277 | Child Development - Pre-School Education | BC | 10 |  |  |  |  | x | x |  |
| 0286 | Child Development - Pre-School Educ/Infant Toddler | AC | 32 |  | x |  |  |  |  |  |
| 0275 | Child Development - School Age Child Care | AAS | 61 |  | x |  |  |  |  |  |
| 0281 | Child Development - Special Education | AAS | 63 |  |  | x |  |  |  |  |
| 0285 | Child Development - Special Education | AC | 33 |  |  | x |  |  |  |  |
| 0831 | Family Child Care Business | BC | 1.5 |  |  |  |  |  | x |  |
| 0055 | Teaching, Leadership \& Support Professionals | AAS | 63 |  | x |  |  |  |  |  |
| 0057 | Teaching, Leadership \& Support Professionals | AC | 35 |  | x |  |  |  |  |  |
| ALSO SEE BACCALAUREATE/TRANSFER A.A.T. - Early Childhood Education |  |  |  |  |  |  |  |  |  |  |
| HEALTH SCIENCE |  |  |  |  |  |  |  |  |  |  |


| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0215 | Biotechnology | AAS | 67 |  |  |  |  |  | x |  |
| 0868 | Dental Assistant | BC | 4 |  |  |  |  |  |  | x |
| 0810 | Dental Assisting | BC | 3.5 |  |  |  |  |  | x |  |
| 0222 | Dental Hygiene | AAS | 72 |  |  | x |  |  |  |  |
| 0808 | Dialysis Technician | AC | 3 |  |  |  |  |  | x |  |
| 0830 | EKG Technician | BC | 2 |  |  |  |  |  | x |  |
| 0867 | Emergency Medical Technician (EMT) | BC | 9 |  |  |  |  | x |  | x |
| 0252 | Emergency Medical Technician - Basic | BC | 6 |  | x |  | x | x |  | x |
| 0265 | EMT II Paramedic | AC | 34 |  |  |  | x |  |  |  |
| 0263 | EMT II Paramedic | AAS | 61 |  |  |  | x |  |  |  |
| 0809 | Medical Administrative Assistant | BC | 3 |  |  |  |  |  | x |  |
| 0359 | Medical Assistant (Basic) | AC | 33 |  |  |  |  |  |  | x |
| 0386 | Medical Assisting | AC | 26 |  |  |  |  |  | x |  |
| 0862 | Medical Billing/Coding (Computerized) | BC | 15 | x | x | x | x | x | x | x |
| 0870 | Medical Secretary | BC | 20.5 |  |  |  | x |  |  | x |
| 0257 | Mortuary Science | AAS | 62 |  |  |  | x |  |  |  |
| 0247 | Nephrology/Renal Technology | AAS | 65 |  |  |  | x |  |  |  |
| 0239 | Nursing | AAS | 69 | x |  |  | x |  | x |  |
| 0801 | Nursing Assistant (Basic) | BC | 10 | x | x | x | x | x | x | x |
| 0240 | Nursing - Practical | AC | 40 | x |  | x | x | x |  | x |
| 0381 | Nursing (RN Completion) | AAS | 70 |  |  | x |  |  |  | x |
| 0221 | Obstetrics \& Gynecologic Technology | BC | 11 |  |  |  | x |  |  |  |
| 0259 | Occupational Therapy Assistant (OTA) | AAS | 75 |  |  |  |  |  |  | x |
| 0382 | Ophthalmic Technology | AAS | 65 |  |  |  |  | x |  |  |
| 0802 | Pharmacy Technician | BC | 8.5 | x | x | x |  | X | x | x |

## Programs of Study

Program/Plans by Cluster aa.s. (associate applied science) ac. (advanced certificate) b.c. (Basic certificate)

| HEALTH SCIENCE (CONTINUED) |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| 0254 | Pharmacy Technology | AC | 33 |  |  |  | x |  |  |  |
| 0219 | Phlebotomy | BC | 11 |  |  |  | x |  |  |  |
| 0866 | Phlebotomy (Accelerated) | BC | 15 |  |  |  |  |  |  | x |
| 0262 | Physician Assistant | AAS | 78 |  |  |  | x |  |  |  |
| 0246 | Radiography | AAS | 75 |  |  |  | x |  |  | x |
| 0248 | Renal Dialysis Technology | AC | 36 |  |  |  | x |  |  |  |
| 0234 | Respiratory Care | AAS | 71 |  |  |  | x |  |  |  |
| 0269 | Sterile Processing Clinical | BC | 11 |  |  |  | x |  |  |  |
| 0267 | Surgical Technology | AAS | 61 |  |  |  | x |  |  |  |


| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0365 | Baking \& Pastry Arts | AAS | 62 |  |  | x |  |  |  |  |
| 0366 | Baking \& Pastry Arts | AC | 38 |  |  | x |  |  |  |  |
| 0367 | Baking \& Pastry Arts | BC | 15 |  |  | x |  |  |  |  |
| 0392 | Cake Decorating \& Baking (L'Art Du Gateau) | BC | 16 |  |  | x |  |  |  |  |
| 0362 | Culinary Arts | AAS | 63 |  |  | x |  |  |  |  |
| 0363 | Culinary Arts | AC | 41 |  |  | x |  |  |  |  |
| 0364 | Culinary Arts | BC | 13 |  |  | x |  |  |  |  |
| 0253 | Food Sanitation | BC | 2 |  | x | x | x |  | x |  |
| 0891 | Food Service Sanitation - Recertification | BC | 1 |  | x |  | x |  | x |  |
| 0061 | Hospitality | AAS | 63 |  | x |  |  |  |  |  |
| 0062 | Hospitality Front Office | AC | 32 |  | x |  |  |  |  |  |
| 0746 | Pastry \& Baking (L'Art de la Patisserie) | BC | 24 |  |  | x |  |  |  |  |


| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0344 | Addictions Studies | AAS | 64 |  | x | x |  |  |  |  |
| 0343 | Addictions Studies | AC | 37 |  | x | x |  |  |  |  |
| 0345 | Addictions Studies | BC | 18 |  | x | x |  |  |  | x |
| 0349 | Cosmetology | AC | 36 |  |  |  |  |  | x |  |
| 0339 | Gerontology Aide | BC | 12 |  |  |  |  |  |  | x |
| 0340 | Gerontology Specialist | AAS | 61 |  |  |  |  |  |  | x |
| 0195 | HIV/STI Prevention Education | BC | 24 |  |  |  |  |  |  | x |
| 0895 | Homemaker/Homehealth Aide | BC | 4.5 |  |  |  | x |  |  |  |
| 0391 | Human Development \& Familly Studies | AAS | 60 |  |  |  |  | x |  |  |
| 0387 | Human Resource Management | AC | 30 |  |  |  |  |  |  | x |
| 0341 | Nursing Home Administration | BC | 12 |  |  |  |  |  |  | x |
| 0896 | Personal Trainer | BC | 1.5 |  |  | x | x |  |  |  |
| 0368 | Property Management/Desk Clerk | BC | 12 |  |  |  |  |  |  | x |
| 0369 | Property Management/Leasing Specialist | BC | 12 |  |  |  |  |  |  | x |
| 0258 | Psychiatric Rehabilitation | BC | 14 |  |  |  |  |  |  | x |
| 0313 | Social Work - Generalist | AAS | 66 |  | x | x |  |  |  |  |
| 0317 | Social Work - Generalist | AC | 37 |  | x |  |  |  |  |  |
| 0370 | Social Work - Youth Work | AAS | 63 |  | x |  |  |  |  |  |
| 0371 | Social Work - Youth Work | AC | 31 |  | x |  |  |  |  |  |
| 0372 | Social Work - Youth Work | BC | 15 |  | x |  |  |  |  |  |

## Programs of Study

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INFORMATION TECHNOLOGY

| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0806 | A+ Certified Computer Technician | BC | 6 | x |  |  | x |  |  | x |
| 0011 | Computer Information Systems | AAS | 60 | X | X | X | x | x | x | X |
| 0012 | Computer Information Systems | BC | 12 | X | X | x | X | X | X | X |
| 0013 | Computer Information Systems | AC | 30 | X | x | x | X | X | X | X |
| 0852 | Computer Literacy | BC | 7 |  |  |  |  |  |  | X |
| 0297 | Computer Security \& Forensic Investigation | BC | 20 |  |  |  |  |  |  | X |
| 0264 | Environmental (GIS) Geographic Information Systems | BC | 21 |  | x |  |  |  |  |  |
| 0719 | Information Processing | AC | 26 |  |  |  |  |  |  | x |
| 0384 | Network Security \& Forensics | AC | 31 |  | X |  |  |  |  |  |
| 0383 | Network Security \& Forensics | BC | 18 |  | X |  |  |  |  |  |
| 0141 | Networking Systems \& Technologies | AAS | 60 | x |  |  |  |  | x |  |
| 0142 | Networking Systems \& Technologies | AC | 30 | X |  |  |  |  | X |  |
| 0143 | Networking Systems \& Technologies | BC | 18 | X |  |  |  |  | X |  |
| 0811 | Web Design | BC | 5 |  |  |  |  |  | x |  |
| 0155 | Web Development | AC | 31 |  |  |  |  |  | X |  |
| 0152 | Web Development | BC | 16 |  |  |  |  |  | X |  |

LAW, PUBLIC SAFETY, CORRECTIONS \& SECURITY

| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0319 | Criminal Justice - Private Police Services | AC | 30 | x |  |  |  |  |  |  |
| 0326 | Criminal Justice - Private Police Services | BC | 18 | x |  |  |  |  |  |  |
| 0294 | Criminal Justice - Public Police Services | AAS | 60 | x | X | x |  | x | x | $x$ |
| 0295 | Criminal Justice - Public Police Services | AC | 30 | x | x | x |  | x | x | x |
| 0296 | Criminal Justice - Public Police Services | BC | 15 | x | x | x |  | x | x | x |
| 0897 | Emergency Dispatch (911) | BC | 2.5 |  |  | x | x |  |  |  |
| 0355 | Emergency Management | AAS | 64 |  |  |  |  | x |  | x |
| 0358 | Emergency Preparedness | BC | 18 |  |  |  |  | x |  | x |
| 0336 | Fire Science \& Technology | AAS | 60 |  | x |  |  |  |  |  |
| 0356 | Homeland Security | BC | 18 |  |  |  |  | x |  | x |
| 0357 | Incident Command | BC | 18 |  |  |  |  | x |  | x |
| 0304 | Paralegal | AAS | 63 |  |  |  |  |  |  | x |
| 0829 | Paralegal | BC | 11.5 |  |  |  |  |  | x |  |
| 0898 | Unarmed Security Guard | BC | 2 | x |  |  |  |  |  |  |
| MANUFACTURING |  |  |  |  |  |  |  |  |  |  |
| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| 0826 | Computer Numeric Control Technician | BC | 15 | x |  |  |  |  |  |  |
| 0748 | Computerized Numerical Control (CNC) | AC | 41 |  |  |  |  |  |  | x |
| 0790 | Industrial Maintenance | AC | 36 | x |  |  |  |  |  | x |
| 0825 | Manufacturing (Basic) | BC | 14.5 | x |  |  |  |  |  |  |
| 0770 | Manufacturing Tech - Maintenance Mechanic | AAS | 62 | x |  |  |  |  |  |  |
| 0771 | Manufacturing Tech - Maintenance Mechanic | AC | 34 | x |  |  |  |  |  |  |
| 0789 | Process Technology | AAS | 63 |  |  |  |  | $x$ |  |  |
| 0754 | Process Technology | AC | 38 |  |  |  |  | x |  |  |

## Programs of Study

Program/Plans by Cluster aas. (Associate applied science) A.c. (advanced certificate) b.c. (Basic certificate)

| SCIENCE, TECHNOLOGY, ENGINEERING \& MATHEMATICS |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| 0389 | Agricultural Biotechnology | AC | 31 |  | x |  |  |  |  |  |
| 0137 | Chemical Laboratory Technology | AAS | 62 |  |  |  |  |  | x |  |
| TRANSPORTATION, DISTRIBUTION \& LOGISTICS |  |  |  |  |  |  |  |  |  |  |
| \# | PROGRAM/PLAN | AWARD | HRS. | DA | HW | KK | MX | OH | TR | WR |
| 0125 | Automotive Technology | AAS | 66 |  |  | x |  |  | x |  |
| 0130 | Automotive Technology | AC | 46 |  |  | x |  |  | x |  |
| 0116 | Automotive Technology | BC | 20 |  |  |  |  |  | x |  |
| 0112 | Auto Body Reconstruction Technology | BC | 25 |  |  | x |  |  |  |  |
| 0111 | Auto Body Repainting Technology | BC | 26 |  |  | x |  |  |  |  |
| 0134 | Automotive Chassis Maintenance | BC | 19 |  |  | x |  |  |  |  |
| 0133 | Automotive Collision Technology | AC | 44 |  |  | x |  |  |  |  |
| 0136 | Automotive Fuel Management Technology | BC | 27 |  |  | x |  |  |  |  |
| 0128 | Automotive Maintenance | BC | 27 |  |  | x |  |  |  |  |
| 0185 | Automotive Parts Specialists | BC | 21 |  |  | x |  |  |  |  |
| 0876 | Commercial Driver Training | BC | 12 |  |  |  |  | x |  |  |
| 0875 | Commercial Passenger Driver - Class B | BC | 9 |  |  |  |  | x |  |  |
| 0890 | Defensive Driving - Attitudinal | BC | 1 |  | x |  |  |  |  |  |
| 0848 | Forklift Operation \& Safety | BC | 2 |  |  |  |  | x |  |  |
| 0889 | Limousine - Residential Chauffeur Training | BC | 1 |  | x |  |  |  |  |  |
| 0713 | Logistics/Transportation/Distribution | AAS | 63 | x |  |  |  |  |  |  |
| 0712 | Logistics/Transportation/Distribution | AC | 36 | x |  |  |  |  |  |  |
| 0715 | Public Passenger Vehicle Training - Taxi | BC | 6 |  | x |  |  |  |  |  |
| 0832 | Supply Chain Management (Fundamentals of) | BC | 4 |  | x |  |  | x |  | x |
| 0385 | Supply Chain Management (SCM) | BC | 16 |  | x | x |  | x |  |  |



# Programs of Study <br> Baccalaureate Transfer - IAI 

## ILLINOIS ARTICULATION INITIATIVE (IAI)

## Models for CCC Associate in Arts (A.A.) and Associate in Science (A.S.) Transfer Degrees and General Education

City Colleges of Chicago participates in the Illinois Articulation Initiative (IAI), which is a comprehensive statewide effort among more than 100 colleges and universities in Illinois to facilitate the transfer of students. IAI became effective for students entering a participating college or university as first-time, first-year students the summer of 1998. Benefits for students are as follows:

- Students who complete the A.A. or A.S. degree at the City Colleges of Chicago, and who meet the admission requirements of the IAI participating baccalaureate degree granting institution to which they transfer, will have completed the lower-division general education requirements for an associate or baccalaureate degree in lieu of the receiving institution's general education requirements.
- Students who complete the IAI General Education Core Curriculum (GECC) at City Colleges of Chicago and transfer to participating institutions have the assurance that lower-division general education requirements for an associate or baccalaureate degree have been satisfied and the GECC will transfer.

A participating/receiving institution may require transfer students to complete an institution-wide and/or missionrelated graduation requirement beyond the scope of the Illinois General Education Core Curriculum.

The IAI Website http://www.itransfer.org/newwebsite includes information on requirements for general education and specific majors, course descriptions, and a student planning worksheet. (See IAI equivalency course grids in this section for general education and majors.)

Due to the increasing number of students fulfilling degree requirements at more than one City College, districtwide models for A.A. and A.S. Transfer Degrees showing minimum general education requirements have been designed. The models facilitate the need for a smooth transition for the student's path to degree completion.

The CCC degree models for both the Associate in Arts and Associate in Science programs, indicate general education minimum requirements as well as the State of Illinois Human Diversity requirement which follow the IAI course equivalency grids.

## PROGRAMS OF STUDY

baccalaureate Transfer - IAI General Education
IAI APPROVED GRIDS FOR GENERAL EDUCATION COURSES

| SUBJECT | NO | COURSE DESCRIPTION | IA NO. | CREDIT | DA | HW | KK | MX | OH | TR | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AFRICAN AMERICAN STUDIES (0117) |  |  |  |  |  |  |  |  |  |  |  |
| AFRO AM | 101 | Intro to African-Amer Stds | HF 906D | 3 |  |  |  |  | x |  |  |
| ANTHROPOLOGY (0081) |  |  |  |  |  |  |  |  |  |  |  |
| ANTHRO | 201 | Intro, Biol \& Cult Evol-Human | S1 900N | 3 | x |  | x | x |  | x | x |
| ANTHRO | 202 | Cultural Anthropology | S1 901N | 3 | x | x | x | x | x | x | x |
| ART (0010) |  |  |  |  |  |  |  |  |  |  |  |
| ART | 103 | Art Appreciation | F2 900 | 3 | x | x |  |  | x | x | x |
| ASTRONOMY (0071) |  |  |  |  |  |  |  |  |  |  |  |
| ASTROMY | 201 | Descriptive Astronomy | P1 906 | 3 | x | x |  | x |  | x | x |
| BIOLOGY (0023) |  |  |  |  |  |  |  |  |  |  |  |
| BIOLOGY | 107 | Nutrition-Consumer Education | L1 904 | 3 |  |  |  | x |  |  |  |
| BIOLOGY | 109 | Human Genetics and Evolution | L1 907 | 3 |  | x |  |  |  |  |  |
| BIOLOGY | 114 | General Education Biology | L1 900L | 4 | x | x | x | x | x | x | $x$ |
| BIOLOGY | 115 | Human Biology | L1 904L | 4 | x | x | x | x | x | x | x |
| BIOLOGY | 116 | Anatomy and Physiology | L1 904L | 4 |  |  |  | x |  |  |  |
| BIOLOGY | 119 | Environmental Biology | L1 905L | 4 |  |  |  |  |  |  | x |
| BIOLOGY | 242-1 | Evolution | L1 907 | 3 | x |  | x |  |  |  |  |
| BOTANY (0025) |  |  |  |  |  |  |  |  |  |  |  |
| BOTANY | 201 | General Botany I | L1 901L | 4 | x |  |  |  |  | x | x |
| CHEMISTRY (0073) |  |  |  |  |  |  |  |  |  |  |  |
| CHEM | 121 | Basic Chemistry I | P1 902L | 4 | x | x | x | x | x | x | x |
| CHEM | 201 | General Chemistry I | P1 902L | 5 | x | x | x | x | x | x | x |
| COMMUNICATION MEDIA (0004) |  |  |  |  |  |  |  |  |  |  |  |
| CMMEDIA | 163 | Film Rhetoric | F2 905 | 3 |  |  |  |  |  | x |  |
| ECONOMICS (0082) |  |  |  |  |  |  |  |  |  |  |  |
| ECON | 201 | Principles of Economics I | S3 901 | 3 | x | x | x | x | x | x | x |
| ECON | 202 | Principles of Economics II | S3 902 | 3 | x | x | x | x | x | x | x |
| ENGLISH (0035) |  |  |  |  |  |  |  |  |  |  |  |
| ENGLISH | 101 | Composition | C1 900 | 3 | x | x | x | x | x | x | $x$ |
| ENGLISH | 102 | Composition | C1 901R | 3 | x | x | x | x | x | x | x |
| ENVIRONMENTAL TECHNOLOGY (0027) |  |  |  |  |  |  |  |  |  |  |  |
| ENVR TC | 105 | Introduction to Atmospheric Sciences | P1 905 | 3 |  |  |  |  |  |  | x |
| FINE ARTS (0042) |  |  |  |  |  |  |  |  |  |  |  |
| FIN ART | 104 | The World of the Cinema | F2 908 | 3 |  | x |  | x |  | x |  |
| FIN ART | 105 | History of Paint Sculp Arc | F2 900 | 3 | x | x |  |  |  | x |  |
| FIN ART | 107 | Hist of Arch Paint Sculp I | F2 901 | 3 | x | x | x | x |  | x | x |
| FIN ART | 108 | Hist of Arch Paint Sculp II | F2 902 | 3 | x | x | x | x |  | x | x |
| FIN ART | 109 | History of Cinema | F2 909 | 3 |  | x |  |  |  |  |  |
| FIN ART | 110 | Opera and the Humanities | F1 910 | 3 |  | $\times$ |  |  |  | x |  |
| FRENCH (0051) |  |  |  |  |  |  |  |  |  |  |  |
| FRENCH | 104 | Fourth Course French | H1 900 | 4 |  | x |  |  |  | x | x |
| FRENCH | 213 | Intro to Moder Lit French | H3 916 | 3 |  | x |  |  |  |  |  |
| FRENCH | 214 | Readings in Lit French | H3 916 | 3 |  | x |  |  |  | x |  |

## Programs of Study

## baccalaureate Transfer - IAI General Education

## IAI APPROVED GRIDS FOR GENERAL EDUCATION COURSES

| SUBJECT | NO | COURSE DESCRIPTION | IAI NO. | CREDIT | DA | HW | KK | MX | OH | TR | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GEOGRAPHY (0084) |  |  |  |  |  |  |  |  |  |  |  |
| GEOG | 101 | World Geography | S4 900N | 3 | X | X | x | X |  | X | X |
| GEOG | 102 | Economic Geography | S4 903N | 3 |  | X | x |  |  |  | x |
| GEOG | 201 | Physical Geography | P1 909 | 3 | x |  |  |  |  |  |  |
| GEOLOGY (0075) |  |  |  |  |  |  |  |  |  |  |  |
| GEOLOGY | 201 | Physical Geology | P1 907L | 3 | x | x |  |  |  | X |  |
| HISTORY (0085) |  |  |  |  |  |  |  |  |  |  |  |
| HISTORY | 111 | Hist Amer People to 1865 | S2 900 | 3 | X | X | X | X | X | X | X |
| HISTORY | 112 | Hist Amer People From 1865 | S2 901 | 3 | X | x | X | X | X | X | X |
| HISTORY | 141 | Hist World Civilization to 1500 | S2 912N | 3 | X | x | x | X | X | X | X |
| HISTORY | 142 | Hist World Civilization From 1500 | S2 913N | 3 | x | x | x | x | x | x | x |
| HISTORY | 215 | History of Latin America | S2 910N | 3 | X | X | X |  | X | X | X |
| HISTORY | 225 | Modern Middle East History | S2 919N | 3 |  | x |  |  |  |  |  |
| HISTORY | 243 | Far East in the Modern World | S2 909N | 3 |  |  | X |  |  | X | X |
| HISTORY | 247 | African Hist to Col Period | S2 906N | 3 | x | x |  | X | x | X | X |
| HISTORY | 248 | African Hist - Modern World | S2 907N | 3 |  | X | X | X |  |  |  |
| HUMANITIES (0041) |  |  |  |  |  |  |  |  |  |  |  |
| HUM | 123 | Intro to Arts and Ideas | HF 900 | 3 | x | x |  |  |  |  | x |
| HUM | 143 | Intro to Latin American/Latino | HF 906D | 3 |  | x |  |  |  |  |  |
| HUM | 201 | General Course I Hum | HF 900 | 3 | x | X | X | X | X | X | X |
| HUM | 202 | General Course II Hum | HF 901 | 3 | x | x | X | X | X | X | X |
| HUM | 203 | Arts of Cont America | HF 900 | 3 |  | x |  |  |  |  |  |
| HUM | 205 | World Literature I | H3 906 | 3 | x | x | x | x | x | x | X |
| HUM | 207 | The Great Books | H3 907 | 3 | X | X | X | X |  |  |  |
| HUM | 208 | Women in Creative and Performing Arts | HF 907D | 3 |  | X |  |  |  |  | X |
| HUM | 210 | Comparative Mythology | H9 901 | 3 |  | X | X | X |  | x | X |
| HUM | 212 | Non-Western Humanities | HF 904N | 3 |  | X | X | X |  | x | X |
| HUM | 215 | Art \& Phil of African Cont | HF 904N | 3 |  | x |  |  | x |  |  |
| ITALIAN (0052) |  |  |  |  |  |  |  |  |  |  |  |
| ITALIAN | 104 | Fourth Course Italian | H1 900 | 4 |  | x |  |  |  |  |  |
| JAPANESE (0054) |  |  |  |  |  |  |  |  |  |  |  |
| JAPANES | 104 | Fourth Course Japanese | H1 900 | 4 |  | x |  |  |  |  |  |

## Programs of Study

baccalaureate Transfer - IAI General Education

## IAI APPROVED GRIDS FOR GENERAL EDUCATION COURSES

| SUBJECT | NO | COURSE DESCRIPTION | IAI NO. | CREDIT | DA | HW | KK | MX | OH | TR | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LITERATURE (0036) |  |  |  |  |  |  |  |  |  |  |  |
| LIT | 110 | Introduction to Literature | H3 900 | 3 | x | x | x | x | x | x | x |
| LIT | 111 | Poetry | H3 903 | 3 | x | x | x | x | x | x | x |
| LIT | 112 | Drama | H3 902 | 3 | x | x | x | x | x | x | x |
| LIT | 113 | Fiction | H3 901 | 3 | x | x | x | x | x | x | x |
| LIT | 114 | Ideas in Prose | H3 904 | 3 | x |  |  | x |  |  |  |
| LIT | 116 | Amer Lit Col Days-Civil War | H3 914 | 3 |  | x | x | x |  |  | x |
| LIT | 117 | Amer Lit Civ War-20th Cent | H3 915 | 3 | x | x | x |  |  | x | x |
| LIT | 118 | English Lit Begin to Johnson | H3 912 | 3 |  | x |  |  |  |  | x |
| LIT | 119 | English Literature Rom Rev-20th Cent | H3 913 | 3 |  | x | x | x |  |  | x |
| LIT | 121 | Contemporary Afro-American Literature | H3 910D | 3 |  | x | x | x | x |  | x |
| LIT | 122 | Perspectives in Black Lit | H3 910D | 3 |  | x |  | x |  |  |  |
| LIT | 123 | Lit/ US from Civil War to Present | H3 915 | 3 |  |  |  |  | x |  |  |
| LIT | 126 | Contemporary American Literature | H3 915 | 3 |  |  |  |  |  |  | x |
| LIT | 127 | Contemporary British Literature | H3 913 | 3 |  |  |  |  |  |  | x |
| LIT | 128 | Latin American Literature | H3 908N | 3 |  | x |  | x |  | x | x |
| LIT | 129 | U.S. Latino (A) Literature | H3 910D | 3 |  | x |  |  |  |  |  |
| LIT | 131 | Survey of Afro-Amer Poetry | H3 910D | 3 |  | x |  | x |  |  |  |
| LIT | 133 | African American Fiction | H3 910D | 3 |  |  |  | x |  |  |  |
| LIT | 150 | Women's Literature | H3 911D | 3 | X | x | x | x | x | x | $x$ |
| LIT | 155 | Literature and Film | F2 905 | 3 |  |  |  |  |  | x | x |
| LIT | 156 | Creative Nonfiction | H3 904 | 3 |  |  |  |  |  |  | x |
| LIT | 211 | Shakespeare | H3 905 | 3 | x | x | x | x |  | x | x |
| LIT | 220 | World Literature | H3 906 | 3 | x |  |  |  |  |  |  |
| LIT | 221 | Topics in Literature: Romanticism in British and Am Lit | H3 907 | 3 | x |  |  |  |  |  |  |
| MATH (0045) |  |  |  |  |  |  |  |  |  |  |  |
| MATH | 118 | General Education Math | M1 904 | 4 | x | x | x | x | x | x | x |
| MATH | 122 | Math for Elementary Teachers I | M1 903 | 4 | x | x | x | x | x | x | x |
| MATH | 125-1 | Introductory Statistics | M1 902 | 4 | x | $x$ | $x$ | x | x | $x$ | x |
| MATH | 144 | Finite Mathematics | M1 906 | 4 | x | x | x | x |  | x | x |
| MATH | 146 | Discrete Mathematics | M1 905 | 4 | x | x |  |  |  |  |  |
| MATH | 204-1 | Calculus for Business and Social Science | M1 900-B | 5 | x | x | x | x | x | x | x |
| MATH | 207 | Calculus and Analytic Geometry I | M1 900-1 | 5 | x | x | x | x | x | x | x |
| MATH | 208 | Calculus and Analytic Geometry II | M1 900-2 | 5 | x | x | x | x | x | x | x |
| MATH | 209 | Calculus and Analytic Geometry III | M1 900-3 | 5 | x | x | x | x | x | x | x |
| MUSIC (0060) |  |  |  |  |  |  |  |  |  |  |  |
| MUSIC | 121 | Introduction to Music | F1900 | 3 | x | x | x | x | x | x | x |
| MUSIC | 124 | Trends in Modern American Music | F1 904 | 3 |  | x |  |  |  |  |  |
| MUSIC | 183 | World Music | F1 903N | 3 |  | x |  |  |  |  |  |
| MUSIC | 221 | Music Literature and History | F1 901 | 3 |  | x |  |  |  |  |  |
| MUSIC | 223 | Music History to 1750 | F1 901 | 3 |  |  | x | x |  | x |  |
| OCEANOGRAPHY (0070) |  |  |  |  |  |  |  |  |  |  |  |
| OCEAN | 101 | Introduction Oceanography | P1 905 | 3 |  |  |  |  |  | $x$ |  |

## Programs of Study

## baccalaureate Transfer - IAI General Education

| IAI APPROVED GRIDS FOR GENERAL EDUCATION COURSES |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SUBJECT | NO | COURSE DESCRIPTION | IAI NO. | CREDIT | DA | HW | KK | MX | OH | TR | WR |
| PHILOSOPHY (0043) |  |  |  |  |  |  |  |  |  |  |  |
| PHIL | 105 | Logic | H4 906 | 3 | x | x | x | x | x | x | x |
| PHIL | 106 | Introduction to Philosophy | H4 900 | 3 | x | x | x | x | x | x | x |
| PHIL | 107 | Ethics | H4 904 | 3 | x | x | x | x | x | x | x |
| PHIL | 108 | Philosophy of Religion | H4 905 | 3 | x | x | x | x |  | x | x |
| PHIL | 201 | Greek Philosophy to Renaissance | H4 901 | 3 |  | x |  |  |  |  |  |
| PHIL | 202 | Enlightenment to Present | H4 902 | 3 |  | x |  |  |  |  |  |
| PHIL | 215 | Problems in Philosophy | H4 900 | 3 |  |  |  |  |  | x |  |
| PHIL | 216 | Critical Thinking | H4 906 | 3 | x |  |  |  |  |  |  |
| PHYSICAL SCIENCE (0076) |  |  |  |  |  |  |  |  |  |  |  |
| PHY SCI | 101 | General Course Phy Sci | P9 900 | 3 | x |  | x | x |  | x | x |
| PHY SCI | 102 | General Course Phy Sci | P9 900 | 3 | x |  |  | x |  | x | x |
| PHY SCI | 107 | Current Public Issues in Phy Sci | P9 900 | 3 |  | x |  |  | x | x |  |
| PHY SCI | 111 | General Course I w/Lab Phy Sci | P9 900L | 4 |  |  | x | x | x | x | x |
| PHY SCI | 111 | General Course I w/Lab Phy Sci | P1 905L | 4 |  | x |  |  |  |  |  |
| PHY SCI | 112 | General Course II w/Lab Phy Sci | P9 900L | 4 |  |  | x | x | x | x | x |
| PHY SCI | 118 | Introduction to Meteorology | P1 905L | 4 |  | x |  |  |  |  |  |
| PHYSICS (0077) |  |  |  |  |  |  |  |  |  |  |  |
| PHYSICS | 220 | Physics Calculation and Practice | P1 900L | 2 |  |  |  |  |  | x |  |
| PHYSICS | 221 | Mechanics and Heat | P1 900L | 4 | x | x |  | x |  |  | x |
| PHYSICS | 231 | General Physics I: Mechanics and Wave Motion | P1 900L | 4 |  |  |  |  |  | x |  |
| POLITICAL SCIENCE (0086) |  |  |  |  |  |  |  |  |  |  |  |
| POL SCI | 200 | Principles of Political Science | S5 903 | 3 | x |  |  |  |  |  |  |
| POL SCI | 201 | The National Government | S5 900 | 3 | x | x | x | x | x | x | x |
| POL SCI | 203 | Comparative Government | S5 905 | 3 | x |  | x | x |  | x | x |
| POL SCI | 204 | International Relations | S5 904N | 3 | x |  | x | x |  | x | x |
| POL SCI | 207 | U.S. State and Local Government | S5 902 | 3 | x | x | x | x |  | x |  |
| POLISH (0046) |  |  |  |  |  |  |  |  |  |  |  |
| POLISH | 104 | Fourth Course Polish | H1900 | 4 |  |  |  |  |  |  | x |
| POLISH | 214 | Readings in Literature Polish | H3 916 | 3 |  |  |  |  |  |  | x |
| PSYCHOLOGY (0087) |  |  |  |  |  |  |  |  |  |  |  |
| PSYCH | 201 | General Psychology | S6 900 | 3 | $x$ | x | x | x | x | x | x |
| PSYCH | 207 | Child Psychology | S6 903 | 3 | x | x | x | x | x | x | x |
| PSYCH | 211 | Social Psychology | S8 900 | 3 | x |  | x |  |  | x | x |
| PSYCH | 214 | Adolescent Psychology | S6 904 | 3 |  |  | x |  |  |  | $x$ |
| PSYCH | 222 | Adult Development and Aging | S6 905 | 3 |  |  | x |  |  | x | x |
| PSYCH | 224 | Life Span Developmental Psychology | S6902 | 3 |  |  |  |  |  |  | $\times$ |

## Programs of Study

Baccalaureate Transfer - IAI General Education

## IAI APPROVED GRIDS FOR GENERAL EDUCATION COURSES

| SUBJECT | NO | COURSE DESCRIPTION | IAI NO. | CREDIT | DA | HW | KK | MX | OH | TR | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COMPARATIVE RELIGION (0133) |  |  |  |  |  |  |  |  |  |  |  |
| RELIGN | 101 | Introduction to Religion | H5 900 | 3 |  |  | X |  |  | X |  |
| RELIGN | 102 | The Bible - Hebrew Old Testament | H5 901 | 3 |  |  | x |  |  | x |  |
| RELIGN | 103 | The Bible - New Testament | H5 901 | 3 |  |  | X |  |  | X |  |
| RELIGN | 106 | Comparative Religion I / Eastern Religion | H5 904N | 3 | X |  | X | X |  | X | X |
| RELIGN | 107 | Comparative Religion II / Western Religion | H5 904N | 3 |  |  | x |  |  | X |  |
| SOCIOLOGY (0089) |  |  |  |  |  |  |  |  |  |  |  |
| SOC | 201 | Introduction to Study of Society | S7 900 | 3 | x | x | $x$ | X | X | X | X |
| SOC | 203 | Marriage and the Family | S7 902 | 3 | X | X | X | X | X | X | x |
| SOC | 205 | Social Problems | S7 901 | 3 | X | X | x |  |  | X | X |
| SOC | 207 | The Sociology of Sex and Gender | S7 904D | 3 |  | x |  |  |  |  |  |
| SOC | 211 | Race and Ethnic Relations | S7 903D | 3 |  |  |  |  |  |  | X |
| SOCIAL SCIENCE (0088) |  |  |  |  |  |  |  |  |  |  |  |
| SOC SCI | 101 | General Course I Soc Sci | S9 900 | 3 | X | X | X | X | X | X | X |
| SOC SCI | 102 | General Course II Soc Sci | S9 901 | 3 | x | X | x | X | X | x | X |
| SPANISH (0057) |  |  |  |  |  |  |  |  |  |  |  |
| SPANISH | 104 | Fourth Course Spanish | H1900 | 4 | X | X | X |  | X | X | X |
| SPANISH | 111 | Spanish for Hispanos | H1 900 | 3 | X |  |  |  |  |  |  |
| SPANISH | 210 | Modern Civilization and Culture Spanish | H1 900 | 3 | X |  |  |  |  |  |  |
| SPANISH | 213 | Introduction to Mod Lit Spanish | H3 916 | 3 |  | x |  |  |  |  |  |
| SPANISH | 214 | Readings in Literature Spanish | H3 916 | 3 | x | X |  |  |  |  | x |
| SPEECH (0095) |  |  |  |  |  |  |  |  |  |  |  |
| SPEECH | 101-1 | Fundamentals of Speech Communication | C2 900 | 3 | x | x | x | x | x | x | x |
| SPEECH | 131 | Introduction to the Theatre | F1 907 | 3 |  |  |  |  |  |  | X |
| THEATER ART (0099) |  |  |  |  |  |  |  |  |  |  |  |
| THR ART | 131 | Introduction to Theatre | F1 907 | 3 |  |  | X |  |  |  |  |
| THR ART | 134 | Theater in Modern World | F1 907 | 3 | x | x | x |  |  | x | x |
| ZOOLOGY (0029) |  |  |  |  |  |  |  |  |  |  |  |
| ZOOLOGY | 211 | General Zoology | L1 902L | 4 | X |  |  |  |  | x | X |

## Programs of Study

## Baccalaureate Transfer - IAI Majors

## IAI APPROVED GRIDS FOR MAJOR COURSES

| IAI APPROVED GRIDS FOR MAJOR COURSES |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SUBJECT | NO | COURSE DESCRIPTION | IAI NO. | CREDIT | DA | HW | KK | MX | OH | TR | WR |
| ENGINEERING \& INDUSTRIAL (0332) |  |  |  |  |  |  |  |  |  |  |  |
| 332ENGR | 300 | Introduction to Computer Aided Design | IND911 | 3 |  |  |  |  |  |  | x |
|  |  | Biology (0023) |  |  |  |  |  |  |  |  |  |
| BIOLOGY | 121 | Biology I | BIO910 | 5 | x | x | x | x | x | x | x |
| BIOLOGY | 122 | Biology II | BIO910 | 5 | x | x | x | x | x | x | x |
| BUSINESS (0030) |  |  |  |  |  |  |  |  |  |  |  |
| BUSINES | 181 | Financial Accounting | BUS903 | 4 | x | x | x | $x$ | x | $x$ | x |
| BUSINES | 182 | Managerial Accounting | BUS904 | 4 | x | x | x | x | x | x | x |
| BUSINES | 236 | Advertising | MC912 | 3 |  | x |  |  |  |  |  |
| CHEMISTRY (0073) |  |  |  |  |  |  |  |  |  |  |  |
| CHEM | 201 | General Chemistry I | CHM911 | 5 |  | x | x | x | x | x | x |
| CHEM | 203 | General Chemistry II | CHM912 | 5 |  | x | x | x | x | x | x |
| CHEM | 205 | Organic Chemistry I | CHM913 | 6 | x | x | x | x | x | x | x |
| CHEM | 207 | Organic Chemistry II | CHM914 | 6 | x | x | x | x | x | x | x |
| COMPUTER INFORMATION SYSTEMS (0032) |  |  |  |  |  |  |  |  |  |  |  |
| CIS | 120 | Introduction to Microcomputers | BUS902 | 3 | x | x | x | x | x | x | x |
| CIS | 142 | Introduction to C or C++ Language | CS911 | 3 | x | x | x |  | x | x | x |
| CIS | 144 | Introduction to JAVA Programming Lang | CS911 | 3 | x | x | x | x | x | x | x |
| CIS | 242 | Advanced C or C++ Language | CS912 | 3 | x | x | x | x |  | x |  |
| CIS | 244 | Advanced Java Programming Language | CS912 | 3 | x | x | x | x | x | x | x |
| CRIMINAL JUSTICE (0080) |  |  |  |  |  |  |  |  |  |  |  |
| CRM JUS | 102 | Administration Criminal Justice | CRJ901 | 3 | x | x | x | x | x | x | x |
| CRM JUS | 114 | Administration Juvenile Justice | CRJ914 | 3 | x | x | x | x | x | x | x |
| CRM JUS | 155 | Introduction to Corrections | CRJ911 | 3 | x | x |  |  |  | x | x |
| CRM JUS | 250 | Introduction to Criminology | CRJ912 | 3 | x | x | x |  |  | x | x |
| DIGITAL MULTIMEDIA (0138) |  |  |  |  |  |  |  |  |  |  |  |
| DMD | 105 | Animation | MC924 | 3 |  | x |  |  |  |  |  |
| DMD | 131 | Multimedia I | MC923 | 3 |  | x |  |  |  |  |  |
| ELECTRONICS (0033) |  |  |  |  |  |  |  |  |  |  |  |
| ELECTRN | 206 | Digital Circuits and Systems | EGR932L | 5 | x | x |  |  |  | x | x |
| ENGINEERING (0034) |  |  |  |  |  |  |  |  |  |  |  |
| ENGR | 215 | Electrical Circuit Analysis | EGR93IL | 5 | x | x |  |  |  | x | x |
| ENGLISH (0035) |  |  |  |  |  |  |  |  |  |  |  |
| ENGLISH | 151 | News Reporting and Writing | MC919 | 3 |  |  |  |  |  |  | x |
| ENGLISH | 152 | Introduction to Mass Communication | MC911 | 3 |  | x |  |  |  |  | x |
| MATH (0045) |  |  |  |  |  |  |  |  |  |  |  |
| MATH | 125 | Introductory Statistics | BUS901 | 4 | x | x | x | x | x | x | x |
| MATH | 146 | Discrete Mathematics | CS915 | 4 | x | x |  |  |  | x | x |
| MATH | 207 | Calculus \& Analytic Geometry I | MTH901 | 5 | x |  |  | x | x | x | x |
| MATH | 208 | Calculus \& Analytic Geometry II | MTH902 | 5 | x |  |  | x | x | x | x |
| MATH | 209 | Calculus \& Analytic Geometry III | MTH903 | 5 | x |  |  | x | x | x | x |
| MATH | 210 | Differential Equations | MTH911 | 3 | x |  |  |  | x | x | x |
| MATH | 212 | Linear Algebra | MTH911 | 3 | x |  |  |  |  | x | x |
| MATH | 216 | Statistics for Business | BUS901 | 4 | x | x | x |  | x | x | x |

## Programs of Study <br> Baccalaureate Transfer - IAI Majors

## IAI APPROVED GRIDS FOR MAJOR COURSES

| SUBJECT | NO | COURSE DESCRIPTION | IAI NO. | CREDIT | DA | HW | KK | MX | OH | TR | WR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MEDIA COMMUNICATION (0011) |  |  |  |  |  |  |  |  |  |  |  |
| MEDIACM | 102 | Announcing | MC918 | 3 |  |  | X |  |  |  |  |
| MEDIACM | 203 | Media Writing | MC917 | 3 |  |  | X |  |  |  |  |
| MEDIACM | 221 | Radio Production I | MC915 | 3 |  |  | X |  |  |  |  |
| MEDIACM | 231 | TV Production I | MC916 | 3 |  |  | X |  |  |  |  |
| PHILOSOPHY (0043) |  |  |  |  |  |  |  |  |  |  |  |
| PHIL | 110 | Social \& Political Philosophy | PLS913 |  |  |  |  |  |  |  | x |
| PHYSICS (0077) |  |  |  |  |  |  |  |  |  |  |  |
| PHYSICS | 215 | Statics | EGR942 | 3 | x | X |  |  |  | X | X |
| PHYSICS | 216 | Dynamics | EGR943 | 3 | x | X |  |  |  | X | X |
| PHYSICS | 217 | Mechanics of Materials | EGR945 | 3 | X | x |  |  |  | x | x |
| PSYCHOLOGY (0087) |  |  |  |  |  |  |  |  |  |  |  |
| PSYCH | 206 | Business and Industrial Psychology | PSY906 | 3 | X |  |  |  |  | X | X |
| PSYCH | 210 | Principles of Supervisory Psychology | PSY906 | 3 | x |  | x |  |  |  |  |
| PSYCH | 213 | Abnormal Psychology | PSY905 | 3 | $x$ |  |  | x |  | x | x |
| PSYCH | 215 | Psychology of Personality | PSY907 | 3 | X | X |  |  |  | X | X |
| SPEECH (0095) |  |  |  |  |  |  |  |  |  |  |  |
| SPEECH | 144 | Oral Reading and Interpretation | TA916 | 3 |  | X |  |  |  |  | X |
| THEATER ART (0099) |  |  |  |  |  |  |  |  |  |  |  |
| THR ART | 130 | Stagecraft | TA911 | 3 |  |  | x |  |  |  | x |
| THR ART | 133 | Acting | TA914 | 3 |  | x |  | x | x | x | X |

## Programs of Study

## Baccalaureate Transfer - Associate in Arts

The Associate in Arts (A.A.) degree is intended for students planning to transfer to a four-year college or university to complete a baccalaureate degree. The 62 credit hour degree comprises a minimum of 38 credit hours in general education, 16 elective credit hours, and 8 credit hours in a foreign language and is designed so that students may choose from a broad selection of liberal arts courses.* Completion of the A.A. degree prepares students to transfer with junior standing.

## Illinois Articulation Initiative (IAI)

City Colleges of Chicago (CCC) participates in the Illinois Articulation Initiative (IAI) which is a comprehensive statewide effort among more than 100 colleges and universities in Illinois to facilitate the transfer of students. Benefits for students include:

- Students who complete the A.A. degree at the CCC, and who meet the admission requirements of the IAI participating baccalaureate degree granting institution to which they transfer, will have completed the lower-division general education requirements for an associate or baccalaureate degree in lieu of the receiving institutions general education requirements.
- Students who complete the IAI General Education Core Curriculum (GECC) at the CCC and transfer to participating institutions have the assurance that lower-division general education requirements for an associate or baccalaureate degree have been satisfied and the GECC will transfer.

The IAI website http://www.itransfer.org/newwebsite includes information on requirements for general education and specific majors, course descriptions, and a student planning worksheet. Also, see CCC general education and majors IAI equivalency charts on pages 31-37.

## Foreign Language Requirement for the Associate in Arts Degree

Effective fall 2009, all incoming students to the CCC seeking an Associate in Arts degree are required to successfully complete eight (8) semester hours of credit in a foreign language, which is equivalent to completion of a 102 foreign language course.
*Students intending to major in communications, humanities, social sciences, or other related professional fields should pursue the A.A. degree. Within the A.A. degree, students can choose from among various concentration areas listed below. However, the concentration areas offered for the A.A. degree are not separate degrees and will not show on transcripts as the specific concentration, but simply as the Associate in Arts degree. Specific course requirements within each concentration will be determined by the individual college during student advisement. Students are encouraged to select courses that will transfer to the baccalaureate degree granting institution they plan to attend: either IAI approved courses, or when applicable, courses that have signed form 13 articulation agreements on file, or satisfy course equivalency status. (See A.A. 210 degree model in this section which provides transfer definitions in end notes.)

## Concentration Areas

See IAI approved majors in Business, Criminal Justice, English, History, Mass Communications, Political Science, Psychology, Sociology, and Theater Arts - see IAI Majors Grid, or visit the IAI website at http://www.itransfer.org/iai/majors/ default.aspx?file=iai\&section=students.

Additionally, other areas of concentrations include: Addiction Studies, Afro-American Studies, Child Development, Cinema/Media Studies, Diversity/Ethnic Studies, Entrepreneurship, Foreign Language, Humanities, Information Systems, Journalism, Latin American/Latino Studies, Law (pre), Literature, Philosophy, Physical Education, Public Safety, Religion, Social Science, Social Work, Speech, Women's Studies, and Youth Work.

Note: For either IAI approved majors or other areas of concentration, students should meet with a CCC Academic Advisor early to create an interdisciplinary plan that will best suit their needs. For a course(s) that is not part of an IAI-approved major, students should immediately consult both a CCC Academic Advisor and an Admissions Representative at the four-year institution to which they will transfer regarding the transferability of the course(s).

# Programs of Study <br> Baccalaureate Transfer - Associate in arts 

ASSOCIATE IN ARTS DEGREE (A.A.) 210minimum 62 CH
I. GENERAL EDUCATIONAPPROVED CORE*
A. COMMUNICATIONS
English 101, English 102, Speech 101B. MATHEMATICSMathematics 118 - or above
C. PHYSICAL/LIFE SCIENCES**
Minimum of one course each in
Physical Science \& Life Sciences (Group A \& B)
One of the courses from Group A or B must be a lab.
Group A (Physical Sciences):
Astronomy 201 (no lab)
Chemistry
Geology 201
Physical Sciences
Physics
Group B (Life Sciences):
Biology
Botany 201
Oceanography 101 (no lab)
Zoology 211
D. HUMANITIES/FINE ARTS**Minimum of one course each in
Humanities \& Fine Arts (Group A \& B)
Group A (Humanities):
Afro American Studies 101
Humanities
Literature
Philosophy
Religion
Group A (continued):
Foreign Languages (104 or above)
Arabic French Japanese Polish Chinese Italian Latin Spanish
Group B (Fine Arts):
Art 103 Music
Fine Arts Theater Art
E. SOCIAL/BEHAVIORAL SCIENCES**Anthropology 201, 202 Political Science
Economics 201, 202Geography
HistoryPsychologySocial Science 101, 102Sociology

Human Diversity Requirement: At least one course must meet the State of Illinois' Human Diversity requirement. The course descriptions on the IAI website shown below for Humanities, Fine Arts, and the Social and Behavioral Sciences include the designations " D " or " N ".
The " $D$ " designation represents courses designed specifically to examine aspects of human diversity within the United States;

The " N " designated courses are designed specifically to examine aspects of human diversity from a non-U.S./nonEuropean perspective, or courses designed specifically to examine aspects of human diversity from a nonWestern perspective.

## http://itransfer.org/iai/gened/Defaultaspx?section=students\&p=h

http://itransfer.org/iai/gened/Default.aspx?section=students\&p=s
Students should meet with a college Academic Advisor for course selection from the general education core courses shown on the A.A. model under Humanities/Fine Arts, and Social/Behavioral Sciences.

## II. ADDITIONAL COLLEGE AA REQUIREMENTS** ***

## A. ELECTIVES

16 CH
B. FOREIGN LANGUAGE****

8 CH
Foreign language which is equivalent to completion of a 102 foreign language course.

* All courses shown in the General Education core must be IAI approved and are listed in the IAI general education equivalency chart of the catalog or, when applicable, have signed Illinois Community College Board (ICCB) form 13 articulation agreements on file indicating by the receiving institution that the course is accepted for transfer under general education.
"The IAI General Education core transfers as a 'package' to all colleges and universities participating in the IAI. Course-to-course transfer is not guaranteed."
** Some courses may not be offered every semester. Thus, students should select their courses with consultation from a college Academic Advisor or Department Chairperson. Students should also obtain the course schedule published each academic term or semester for the CCC College from where the student will take courses. The course schedule can also be downloaded from the CCC website at http://www.ccc.edu.
*** Courses in the category of Additional College A.A. Requirements and Electives must be either IAI approved or, when applicable, have signed form 13 articulation agreements on file, or satisfy equivalency status in compliance with ICCB guidelines.
[Equivalency is defined as: A "Transfer Guide" from X University that demonstrates that $Y$ course from one of the City Colleges of Chicago (CCC) is comparable to a course taught at $X$ University and that the "Transfer Guide" from that University will suffice in lieu of IAI approval or signed form 13 articulation agreements on file at the College and at the CCC District Office of Academic and Occupational Programs.]

[^0]
## PROGRAMS OF STUDY

baccalaureate Transfer - Associate in Science

The Associate in Science (A.S.) degree is intended for students planning to transfer to a four-year college or university to complete a baccalaureate degree. The 64 credit hour degree comprises a minimum of 39 credit hours in general education, 14 additional credit hours in Mathematics and Physical/Life Sciences, and 11 elective credit hours and is designed so that students may choose from a broad selection of science courses.* Completion of the A.S. degree prepares students to transfer with junior standing.

Illinois Articulation Initiative (IAI)
City Colleges of Chicago (CCC) participates in the Illinois Articulation Initiative (IAI) which is a comprehensive statewide effort among more than 100 colleges and universities in Illinois to facilitate the transfer of students. Benefits for students include:

- Students who complete the A.S. degree at the CCC, and who meet the admission requirements of the IAI participating baccalaureate degree granting institution to which they transfer, will have completed the lower-division general education requirements for an associate or baccalaureate degree in lieu of the receiving institutions general education requirements.
- Students who complete the IAI General Education Core Curriculum (GECC) at the CCC and transfer to participating institutions have the assurance that lower-division general education requirements for an associate or baccalaureate degree have been satisfied and the GECC will transfer.

The IAI website http://www.itransfer.org/newwebsite includes information on requirements for general education and specific majors, course descriptions, and a student planning worksheet. Also, see CCC general education and majors IAI equivalency charts on pages 31-37.
*Students intending to major in mathematics, science, or other related professional fields should pursue the A.S. degree. Within the A.S. degree, students can choose from among various concentration areas listed below. However, the concentration areas offered for the A.S. degree are not separate degrees and will not show on transcripts as the specific concentration, but simply as the Associate in Science degree. Specific course requirements within each concentration will be determined by the individual college during student advisement. Students are encouraged to select courses that will transfer to the baccalaureate degree granting institution they plan to attend: either IAI approved courses, or when applicable, courses that have signed form 13 articulation agreements on file, or satisfy course equivalency status. (See A.S. 211 degree model in this section which provides transfer definitions in end notes.)

## Concentration Areas

See IAI approved majors inAgriculture, Biological Sciences, Chemistry, Computer Science, Engineering, Industrial Technology, Mathematics, and Physics - see IAI Majors Grid, or visit the IAI website at:
http://www.itransfer.org/iai/majors/default.aspx?file=iai\&section=students
Additionally, other areas of concentrations include: Earth Sciences, Environmental Science, Health Sciences, Natural Science, Physical Science, Science/Pre-Professional (Architecture, Dentistry, Engineering, Medicine, Optometry, and Pharmacy).

[^1]
## Programs of Study

Baccalaureate Transfer - Associate in Science


ASSOCIATE IN SCIENCE DEGREE (A.S.) 211 minimum 64 CH

39 CH

9 CH

5 CH

7 CH

9 CH
Minimum of one course each in
Humanities \& Fine Arts (Group A \& B)
Group A (Humanities):
Afro American Studies 101
Humanities
Literature
Philosophy
Religion
Group A (continued):
Foreign Languages (104 or above)

Group B (Fine Arts):
Art 103 Music
Fine Arts Theater Art
$\begin{array}{lll}\text { E. SOCIAL/BEHAVIORAL } & \text { SCIENCES** } & 9 \mathrm{CH} \\ \text { Anthropology 201, 202 } & \text { Political Science } & \\ \text { Economics 201, 202 } & \text { Psychology } & \\ \text { Geography } & \text { Social Science 101, 102 } \\ \text { History } & \text { Sociology }\end{array}$

Human Diversity Requirement: At least one course must meet the State of Illinois' Human Diversity requirement. The course descriptions on the IAI website shown below for Humanities, Fine Arts, and Social and Behavioral Sciences include the designations " D " or " N ".
The " D " designation represents courses designed specifically toexamine aspects of human diversity withinthe United States;
The " N " designated courses are designed specifically to examine aspects of human diversity from a non-U.S. /non-European perspective, or courses designed specifically to examine aspects of human diversity from a non-Western perspective.
http://itransfer.org/iai/gened/Defaultaspx?section=students\&p=h
http://itransfer.org/iai/gened/Default.aspx?section=students\&p=s
Students should meet with a college Academic Advisor for course selection from the general education core courses shown on the A.S. model under Humanities/Fine Arts,and Social/Behavioral Sciences.

## II. ADDITIONAL HOURS IN MATHEMATICS AND PHYSICAL/LIFE SCIENCES <br> 14 CH (minimum) REQUIREMENTS*****

Astronomy 201
Biology
Botany 201
Chemistry
Geology 201
III.ELECTIVES*****

Mathematics 208, 209, 210
Oceanography 101
Physical Sciences
Physics
Zoology 211

* All courses shown in the General Education core must be IAI approved and are listed in the IAI general education equivalency chart of the catalog or, when applicable, have signed Illinois Community College Board (ICCB) form 13 articulation agreements on file indicating by the receiving institution that the course is accepted for transfer under general education.
"The IAI General Education core transfers as a 'package' to all colleges and universities participating in the IAI. Course to-course transfer is not guaranteed."
** Some courses may not be offered every semester. Thus, students should select their courses with consultation from a college Academic Advisor or Department Chairperson. Students should also obtain the course schedule published each academic term or semester for the CCC College from where the student will take courses. The course schedule can also be downloaded from the CCC website at http://www.ccc.edu.
*** Courses in the category of Additional Hours in Mathematics and Physical/Life Sciences and Electives must be either IAI approved or, when applicable, have signed form 13 articulation agreements on file, or satisfy equivalency status in compliance with ICCB guidelines.
[Equivalency is defined as: A "Transfer Guide" from X University that demonstrates that $Y$ course from one of the City Colleges of Chicago (CCC) is comparable to a course taught at $X$ University and that the "Transfer Guide" from that University will suffice in lieu of IAI approval or signed form 13 articulation agreements on file at the College and at the CCC District Office of Academic and Occupational Programs.]



## ASSOCIATE IN ENGINEERING SCIENCE 100 (A.E.S.) 64 Credit Hours (CH)

The Associate in Engineering Science (A.E.S.) degree offers courses required for transfer to a four-year college or university for students majoring in engineering sciences. Completion of the A.E.S. degree does not fulfill the requirements of the Illinois Transferable General Education Core Curriculum (IAI GECC). A student must complete the general education requirements of the college or university to which she/he transfers.

## I. GENERAL EDUCATION* <br> (minimum) 20 CH

## A. COMMUNICATIONS

## English 101: Composition I

B. FINE ARTS AND HUMANITIES*****

Select any two courses from the following disciplines:
Afro-American Studies, Art, Fine Arts, Foreign
Language, Humanities, Literature, Music,
Philosophy, Religion, Theater Art
C. MATHEMATICS AND SCIENCE***

Select any two courses from the following disciplines: Astronomy, Biology, Botany, Chemistry, Geology, Mathematics, Oceanography, Physical Science, Physics, Zoology
D. SOCIAL AND BEHAVIORAL SCIENCES***** 6 CH
Select any two courses from the following disciplines:
Anthropology, Economics, Geography,
History, Political Science, Psychology,
Social Science, Sociology
II. REQUIRED PROGRAM CORE***

Chemistry (073)
201 General Chemistry I
Engineering (034)
190 Computer Applications in Engineering
Mathematics (045)
207, 208, and 209 Calculus and
Analytical Geometry I, II, III
210 Differential Equations
Physics (077)
215 Statics
216 Dynamics 3
235 Engineering Physics I Mechanics \& Wave Motion 4
236 Engineering Physics II Electricity \& Magnetism 4
237 Engineering Physics III Heat Light
\& Modern Physics
TOTAL PROGRAM MINIMUM CREDIT HOURS
aspects of human diversity within the United States;
The " $N$ " designated courses are designed specifically to examine aspects of human diversity from a non-U.S./non-European perspective, or courses designed specifically to examine aspects of human diversity from a non-Western perspective.
http://itransfer.org/iai/gened/Defaultaspx?section=students\&p=h
http:///itransfer.org/iai/gened/Default.aspx?section=students\&p=s
Students should meet with a college Academic Advisor for course selection from the general education core courses shown on the A.E.S. model under Humanities/Fine Arts, and Social/Behavioral Sciences.

## III. ELECTIVES***

(Additional courses recommended for various fields of engineering.)
CAD Technology (049)
170 Computer Aided Design I (CAD) (3)
Chemistry (073)
203 General Chemistry II (5)
Engineering (034)
111 Introduction to Engineering Profession (2)
131 Engineering Graphics \& Introduction to Design (3)
Physics (077)
217 Mechanics of Materials (3)
224 Physics Calculations and Practice (2)

* The courses listed under General Education are transferable courses either through IAI approval, signed form 13 articulation agreements, or they satisfy equivalency status in compliance with ICCB guidelines.
**Human Diversity Requirement: At least one course must meet the State of Illinois' Human Diversity requirement. The course descriptions on the IAI website shown below for Humanities, Fine Arts, and Social and Behavioral Sciences include the designations " $D$ " or " $N$ ".

The "D" designation represents courses designed specifically to examine
*** Some courses may not be offered every semester. Thus, students should select their courses with consultation from an Academic Advisor or Department Chairperson. Students should also obtain the course schedule published each academic term or semester for the CCC College from where the student will take courses. The course schedule can also be downloaded from the CCC website at http://www.ccc.edu.


## baccalaureate Transfer - Associate in Fine Arts

## ASSOCIATE IN FINE ARTS (A.F.A.) <br> 60-68 Credit Hours (CH)

Art (Studio) 216; Art Education 217 and Music Performance 205; Music Education 208

The Associate in Fine Arts (A.F.A.) degree offers courses required for transfer to a four-year college or university for students majoring in art (studio), art education, music education, or music performance. Completion of the A.F.A. degree does not fulfill the requirements of the Illinois Transferable General Education Core Curriculum (IAI GECC). A student must complete the general education requirements of the college or university to which she/he transfers.

## REQUIRED PROGRAM A.F.A. DEGREE

 Range from 60-68 CH
## I. GENERAL EDUCATION*

(minimum) 29-35 CH
A. COMMUNICATIONS

English (035)
101 Composition I
102 Composition II
Speech (095)
101 Fundamentals of Speech Communication
B. FINE ARTS AND HUMANITIES by MAJOR** *** Art (Studio) (216) - select two courses
Art Education (217) - select three courses
Music Education (208) - select two courses
Music Performance (205) - select two courses
Select any two or three courses from the following disciplines:
Afro-American Studies, Art, Fine Arts,
Foreign Language, Humanities, Literature,
Music, Philosophy, Religion, Theater Art
C. MATHEMATICS

118 General Education Math or 125 Introductory Statistics
D. PHYSICAL AND LIFE SCIENCES***

Select any two courses from the following disciplines; at least one course must be a lab course:
Astronomy, Biology, Botany, Chemistry,
Geology, Mathematics, Oceanography,
Physical Science, Physics, Zoology
E. SOCIAL AND BEHAVIORAL SCIENCES by MAJOR** ***

Art (Studio) (216) - select two courses6
Art Education (217) - select two courses ..... 6
Music Education (208) - select three courses ..... 9
Music Performance (205) - select one course ..... 3

II. Required Credit Hours for Core by MAJOR

Art (Studio) (216)



Art Education (217) 12
Music Education (208) 26
Music Performance (205) 35
Consult with a college Academic Advisor for selection of required core courses by Major.
III. Required Elective Credit Hours by MAJOR
Art Education (217)

Music Education (208)
Music Performance (205)4

Consult with a college Academic Advisor for selection of required elective courses.

* The courses listed under General Education are transferable courses either through Illinois Articulation Initiative (IAI) approval, signed form 13 articulation agreements, or they satisfy equivalency status in compliance with ICCB guidelines. The number of required General Education credit hours varies by major.
**Human Diversity Requirement: At least one course must meet the State of Illinois' Human Diversity requirement. The course descriptions on the IAI website shown below for Humanities, Fine Arts, and Social and Behavioral Sciences include the designations " $D$ " or " $N$ ".

The " $D$ " designation represents courses designed specifically to examine aspects of human diversity within the United States;

The " $N$ " designated courses are designed specifically to examine aspects of human diversity from a non-U.S./non-European perspective, or courses designed specifically to examine aspects of human diversity from a non-Western perspective.
http://itransfer.org/iai/gened/Defaultaspx?section=students\&p=h
http:///itransfer.org/iai/gened/Default.aspx?section=students\&p=s
Students should meet with a college Academic Advisor for course selection from the general education core courses shown on the A.F.A. model under Humanities/Fine Arts, and Social/Behavioral Sciences.
*** Some of these courses may not be offered every semester.Thus, students should select their courses with consultation from a college

Select any one to three courses from the following disciplines:
Anthropology, Economics, Geography,
History, Political Science, Psychology,
Social Science, Sociology

Academic Advisor or Department Chairperson. Students should also obtain the course schedule published each academic term or semester for the CCC College from where the student will take courses. The course schedule can also be downloaded from the CCC website http://www.ccc.edu.

## PROGRAMS OF STUDY

Baccalaureate Transfer - Associate of Arts in Teaching

## ASSOCIATE OF ARTS IN TEACHING (A.A.T.) <br> 61-63 Credit Hours (CH)

## Early Childhood Education 209 and

Secondary Mathematics 212
The Associate of Arts in Teaching (A.A.T.) degree offers courses required for transfer to a four-year college or university for students majoring in teaching secondary mathematics or early-childhood education. The A.A.T. degree is based on the Illinois Professional Teaching Standards and includes the IAI General Education Core Curriculum (IAI GECC). Degree requirements include a 2.5 GPA, successful completion of the Illinois Test of Basic Skills, initiation of standards-based professional portfolio and evidence of appropriate professional dispositions. The general principles of the A.A.T. majors can be found on the ICCB website http://www.iccb.org/index.html

## REQUIRED PROGRAM A.A.T. DEGREE <br> Range from 61-63 CH

I. GENERAL EDUCATION REQUIREMENTS* 39-42 CH
A. COMMUNICATIONS

English (035)
101 Composition I
102 Composition II
Speech (095)
Speech 101: Fundamentals of Speech Communication
B. FINE ARTS AND HUMANITIES**

9 CH
Select at least one course from Humanities and at least one course from Fine Arts.
C. PHYSICAL AND LIFE SCIENCES

Select one course from Life Sciences and one course from Physical Sciences. At least one of the courses must be a laboratory course.
D. SOCIAL AND BEHAVIORAL SCIENCES** ***

Select three courses from at least two different disciplines: Anthropology, Economics, Geography,
History, Political Science, Psychology,
Social Science, Sociology
E. MATHEMATICS by Major***

Secondary Mathematics (212)
Mathematics (045)
207 Calculus I
Early-Childhood Education (209)
121 Mathematics for Elementary Teachers I and
$7-9 \mathrm{CH}$
III.REQUIRED AREA OF CONCENTRATION HOURS
by MAJOR***
Secondary Mathematics (212)
Mathematics (045)
208 Calculus II and
5

212 Linear Algebra
Early-Childhood Education (209)
Education (083)
120 Introduction to Early Childhood Education
(Must include contact hours in field experience) and
Child Development (090)
107 Health, Safety, Nutrition and 3
149 Creative Activities for Young Children and 3
262 Child, Family \& Community

## 209 Calculus III and

203 Educational Psychology (3)

Speech (095)

243 Speech for Teachers (3)

Select at least one course from among the following:

Education (083)

102 Technology in the Classroom (3)

103 Students with Disabilities (3)

Psychology (087)

II. PROFESSIONAL EDUCATION COMPONENT
by MAJOR***

Secondary Mathematics (212)

Education (083)

101 Introduction to Education

Select at least two courses from among the following:

Education (083)

102 Technology in the Classroom (3)

103 Students with Disabilities (3)

Psychology (087)

203 Educational Psychology (3)

207 Child Psychology (3)

Early-Childhood Education (209)

Education (083)

101 Introduction to Education (3)
(includes at least 15 contact hours of field experience) and
Child Development (090)

101 Human Growth \& Development I OR

122 Mathematics for Elementary Teachers II

* The courses listed in Section I, General Education Requirements, are transferable courses either through Illinois Articulation Initiative (IAI) approval, signed form 13 articulation agreements, or they satisfy equivalency status in compliance with ICCB guidelines. The number of required General Education credit hours varies by major.
**Human Diversity Requirement: At least one course must meet the State of Illinois' Human Diversity requirement. The course descriptions on the IAI website shown below for Humanities, Fine Arts, and Social and Behavioral Sciences include the designations " $D$ " or " $N$ ".

The " $D$ " designation represents courses designed specifically to examine aspects of human diversity within the United States;

The " $N$ " designated courses are designed specifically to examine aspects of human diversity from a non-U.S.Inon-European perspective, or courses designed specifically to examine aspects of human diversity from a non-Western perspective.
http://itransfer.org/iai/gened/Defaultaspx?section=students\&p=h
$\underline{\text { http://itransfer.org/iai/gened/Default.aspx?section=students\&p=s }}$

Students should meet with a college Academic Advisor for course selection from the general education core courses shown on the A.A.T. model under Humanities/Fine Arts, and Social/Behavioral Sciences.
*** Some courses may not be offered every semester. Thus, students should select their courses with consultation from an Academic Advisor or Department Chairperson. Students should also obtain the course schedule published each academic term or semester for the CCC College from where the student will take courses. The course schedule can also be downloaded from the CCC website at http://www.ccc.edu.

## Programs of Study

## ASSOCIATE IN GENERAL STUDIES DEGREE 203

A.G.S. 60 Credit Hours (CH)

The Associate in General Studies (A.G.S.) degree is customized to meet the unique needs of students with objectives that are different than those of the transfer degrees or the occupational degrees. It is an alternative degree for those students who are undecided about future education or career goals or who need a 60 credit hour degree comprising 20 credit hours in general education and 40 credit hours in program electives.

Students are required to meet with a College Advisor for assistance in choosing mutually agreed upon courses that will satisfy their academic goals.
The A.G.S. is not designed for transfer to a four-year college or university. The general education requirements for the A.G.S. do not fulfill IAI (Illinois Articulation Initiative) General Education Core Curriculum guidelines. While other universities may accept credit earned toward the A.G.S. degree, no articulation agreements guaranteeing that the student will enter a Bachelor's Degree program with junior standing has been established. Students planning to transfer to a four-year college or university should consider a major area of concentration in either the Associate in Arts or the Associate in Science transfer degrees.

## I. GENERAL EDUCATION REQUIREMENTS*

## A. COMMUNICATIONS

English 101 Required

## B. FINE ARTS AND HUMANITIES

Select any two courses from the following disciplines: Afro-American Studies, Art, Fine Arts, Foreign Language, Humanities, Literature, Music, Philosophy, Religion, Theater Art
C. MATHEMATICS AND SCIENCE

Select any two courses from the following disciplines: Astronomy, Biology, Botany, Chemistry, Geology, Mathematics, Oceanography, Physical Science, Physics, Zoology
D. SOCIAL AND BEHAVIORAL SCIENCES Select any two courses from the following disciplines: Anthropology, Economics, Geography, History, Political Science, Psychology, Social Science, Sociology
II. REQUIRED PROGRAM ELECTIVES 40 CH

Human Diversity Requirement: At least one course must meet the State of Illinois' Human Diversity requirement. The course descriptions on the IAI website shown below for Humanities, Fine Arts, and Social and Behavioral Sciences include the designations " D " or " N ".
The " D " designation represents courses designed specifically to examine aspects of human diversity within the United States;

The " N " designated courses are designed specifically to examine aspects of human diversity from a non-U.S. /non-European perspective, or courses designed specifically to examine aspects of human diversity from a non-Western perspective.

## http:///itransfer.org/iai/gened/Default aspx?section=students\&p=h

http://itransfer.org/iai/gened/Default.aspx?section=students\&p=s
Students should meet with a college Academic Advisor for course selection from the general education core courses shown on the A.G.S. model under Humanities/Fine Arts, and Social/Behavioral Sciences.

Note: Some courses may not be offered every semester. Thus, students should select their courses with consultation from an Academic Advisor or Department Chairperson. Students should also obtain the course schedule published each academic term or semester for the CCC College from where the student will take courses. The course schedule can also be downloaded from the CCC website at http://www.ccc.edu.

* The courses listed in Section I, General Education Requirements, are transferable courses either through IAI approval, signed form 13 articulation agreements, or they satisfy equivalency status in compliance with ICCB guidelines.


## The Associate in Applied Science Degrees (A.A.S.) And Certificates

The Associate in Applied Science degrees (A.A.S.) and related occupational certificate programs are designed for students primarily interested in acquiring technical/ occupational skills in order to enter the job market. A number of four-year universities and colleges offer baccalaureate degrees designed to accomodate A.A.S. degree graduates. Examples are the B.S. in Technology, the B.S. in Applied Management in Public Safety, the B.S. in Applied Managment in Computer Science, and the B.S./RN Completion degree. Students should check with a college advisor, transfer guides, and/or the baccalaureate institutions regarding transferability of the A.A.S. degree and of individual courses.

The general education component of the A.A.S. degree requires a minimum of 15.0 credit hours designed to meet the skills needed for an occupation. The general education components comprise Communication, Arts/Humanities, Social/Behavioral Sciences and Mathematics/Science.

The remaining curriculum of the A.A.S. comprises career and technical education, work-based learning opportunities, and elective courses.

Also, as part of general education, there is a Human Diversity requirement described below:

Human Diversity Requirement: At least one course must meet the State of Illinois' Human Diversity requirement. The course descriptions on the IAI website shown below for Humanities, Fine Arts, and Social and Behavioral Sciences include the designations " D " or " N ".

The "D" designation represents courses designed specifically to examine aspects of human diversity within the United States;

The " N " designated courses are designed specifically to examine aspects of human diversity from a non-U.S./nonEuropean perspective, or courses designed specifically to examine aspects of human diversity from a non-Western perspective.
http://itransfer.org/iai/gened/Defaultaspx?section=students\&p=h
http://itransfer.org/iai/gened/Default.aspx?section=students\&p=s
Students should meet with a college Academic Advisor for course selection from the general education core courses under the academic disciplines of Humanities/Fine Arts, and Social/Behavioral Sciences.

[^2]
## Educational Guarantee:

The A.A.S. degrees and related occupational certificates also carry an Educational Guarantee whereas the City Colleges of Chicago will provide an employed graduate of a career-entry program (Career Technical Education A.A.S., Advanced or Basic certificate) up to nine additional postgraduation credit hours or the equivalent at no extra cost for tuition and specified fees. This option is for working graduates who lack the skills consistent with the position for which their A.A.S. degree or certificate is a requirement of employment. Please refer to the CCC Student Policy Manual for conditions and procedures:
http://www.ccc.edu/files/studentpolicymanual.pdf

# Programs of Study <br> Agriculture, Food and Natural resources 

## ENVIRONMENTAL TECHNOLOGY 160 <br> Associate in Applied Science degree (A.A.S.) 68 Credit Hours (CH)

The study of Environmental Technology prepares students for work in a wide variety of environmental fields. The courses are designed to prepare students with the skills and knowledge needed to participate in environmental careers including environmental compliance in public and private sector organizations, pollution prevention, environmental remediation, workplace health and safety, and emergency response preparedness. Students will study the various methods used for pollution prevention and the regulations that apply in various types of facilities. Students will learn to develop procedures for proper hazardous materials handling techniques and design training programs used to implement existing and future regulatory requirements to ensure compliance. This program prepares students to work in the health and safety field in such positions as a compliance officer, environmental safety specialist, laboratory technician, hazardous materials emergency response technician, and environmental coordinator.

## General Education

19 CH
English (035)
101 Composition
Speech (095)
101 Fundamentals of Speech Communication
Chemistry (073)
121 Basic Chemistry I
CIS (032)
120 Introduction to Microcomputers
Arts/Humanities and Social Behavioral Sciences (Students should meet with a college Academic Advisor for selection of one course each in these two disciplines.)

See page 51 for A.A.S. general education degree requirements.
33
43
6
Required Program Core ..... 41 CH
Biology (023)
119 Environmental Biology ..... 4
226 Human Structure and Function I ..... 4
English (035)
102 Composition OR ..... 3
107 Report Writing
Environmental Technology (027)
121 Introduction to Hazardous Materials Management ..... 3
131 Environmental Health and Safety ..... 3
141 Site Investigation and Sampling ..... 3
151 Intro to Environmental Laws and Policies ..... 3
175 Hazardous Materials Handling and Transportation ..... 3
211 Recycling and Waste Minimization ..... 3
241 Environmental Sampling ..... 4
243 Environmental Analysis ..... 4
Mathematics (045)
Any college level Math class ..... 4
ELECTIVES ..... 8 CH
Environmental Technology Electives
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 68 CH

## Programs of Study

## Agriculture, Food and Natural Resources

## HORTICULTURE 241

Associate in Applied Science degree (A.A.S.) 63 Credit Hours (CH)

This A.A.S. degree program is designed to prepare students for career opportunities in interior and exterior landscape design, construction and maintenance, and in the horticulture components of the industry.
General Education ..... 17 CH
Botany (025)
201 General Botany I ..... 4
English (035)
101 Composition ..... 3
Mathematics (045)
118 General Education Mathematics ..... 4
Sociology (089)
210 Diverse Cultures in a Global Age ..... 3
Humanities/Fine Arts ..... 3
See page 51 for A.A.S. general education degree requirements.
Required Program Core ..... 46 CH
Horticulture (096)
101 Introduction to Ornamental Horticulture ..... 3
102 Turf grass Management ..... 3
103 Landscape Pest Management ..... 3
104 Plant Propagation ..... 4
105 Identification of Herbaceous Landscape Plants ..... 4
106 Identification of Woody Landscape Plants I ..... 3
107 Soils and Fertilizers ..... 3
201 Supervised Horticulture Experience ..... 5
202 Landscape Design I ..... 4
203 Landscape Design II ..... 4
204 Landscape Installation ..... 3
205 Arboriculture ..... 3
206 Identification of Woody Landscape Plants II ..... 4
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 63 CH
HORTICULTURE 320
Basic Certificate (B.C.) 18 Credit Hours (CH)
Required Program Core ..... 18 CH
Horticulture (096)
101 Introduction to Ornamental Horticulture ..... 3
105 Identification of Herbaceous Landscape Plants ..... 4
106 Identification of Woody Landscape Plants I ..... 3
202 Landscape Design I ..... 4
203 Landscape Design II ..... 4
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 18 CH


# Programs of Study 

Architecture and Construction

## AIR CONDITIONING \& REFRIGERATION 117 <br> Associate in Applied Science Degree (A.A.S.) 62 Credit Hours (CH)

The A.A.S. in Air Conditioning and Refrigeration studies the design, selection, maintenance, testing and installation of residential and commercial air conditioning, refrigeration and heating and ventilation systems, and business skills. The degree can lead to self-employment or employment as an assistant to engineers in industrial or business facility, air conditioning and refrigeration mechanic, furnace installer, oil burner mechanic or a gas furnace mechanic with cooling and heating dealers, contractors, or utility companies.

## General Education

Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education degree requirements.
Required Program Core
40 CH
Air Conditioning (094)
101 Introduction Air Conditioning I
102 Introduction Air Conditioning II
103 Duct Design and Layout
104 Equipment and Systems Controls
105 Owner-Contractor Management
120 Introductory Laboratory
150 Introduction to Refrigeration
151 Commercial Refrigeration
155 Refrigeration Laboratory
158 Commercial Refrigeration Laboratory
160 Introduction to Principles of Heating
165 Heating Laboratory
Engineering (034)
115 Engineering Communications Blueprint Reading
Mathematics (045)
107 Mathematics for Technicians I or advanced Mathematics course

## Electives

Recommended Air Conditioning courses:
Air Conditioning (094)
106 Sheet Metal I (3)
107 Welding I (3)
121 Advanced Laboratory (2)
156 Domestic Refrigeration Laboratory (2)
204 Advanced Control Systems (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS
AIR CONDITIONING \& REFRIGERATION 118
Advanced Certificate (A.C.) 36 Credit Hours (CH)
Required Program Core ..... 36 CH
Air Conditioning (094)
101 Introduction Air Conditioning I ..... 3
102 Introduction Air Conditioning II ..... 3
103 Duct Design and Layout ..... 3
104 Equipment and Systems Controls ..... 3
120 Introductory Laboratory ..... 2
150 Introduction to Refrigeration ..... 3
151 Commercial Refrigeration ..... 3
155 Refrigeration Laboratory ..... 2
158 Commercial Refrigeration Laboratory ..... 2
160 Introduction to Principles of Heating ..... 3
165 Heating Laboratory ..... 2
Engineering (034)
115 Engineering Communications - Blueprint Reading ..... 3
Mathematics (045)
107 Mathematics for Technicians ..... 4
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 36 CH
AIR CONDITIONING - COMMERCIAL REFRIGERATION ..... 153
Basic Certificate (B.C.) 17 Credit Hours (CH)
Required Program Core ..... 17 CH
Air Conditioning (094)
102 Introduction Air Conditioning II ..... 3
105 Owner-Contractor Management ..... 3
151 Commercial Refrigeration ..... 3
157 Analysis Laboratory ..... 2
158 Commercial Refrigeration Laboratory ..... 2
Mathematics (045)
107 Mathematics for Technicians ..... 4
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 17 CH
AIR CONDITIONING - DOMESTIC REFRIGERATION 177Basic Certificate (B.C.) 17 Credit Hours (CH)Required Program Core17 CHAir Conditioning (094)
101 Introduction Air Conditioning I ..... 3
102 Introduction Air Conditioning II ..... 3
120 Introductory Laboratory ..... 2
150 Introduction to Refrigeration ..... 3
155 Refrigeration Laboratory ..... 2
Mathematics (045)
107 Mathematics for Technicians ..... 4
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 17 CH

# Programs of Study Architecture and Construction 

AIR CONDITIONING - HEATING 178<br>Basic Certificate (B.C.) 18 Credit Hours (CH)<br>\section*{Required Program Core}<br>Air Conditioning (094)<br>101 Introduction Air Conditioning I<br>103 Duct Design and Layout<br>105 Owner-Contractor Management<br>160 Introduction to Principles of Heating<br>165 Heating Laboratory<br>Mathematics (045)<br>107 Mathematics for Technicians

## TOTAL PROGRAM MINIMUM CREDIT HOURS

## ARCHITECTURAL DRAFTING 122

Associate in Applied Science degree (A.A.S.) 63 Credit Hours (CH)
This program studies techniques necessary to produce working drawings by which a building is constructed or remodeled. Completion of this program leads to employment as a draftsman or detailer in architecture or design firms or contractors, material suppliers or construction related companies. Study may include Computer Aided Design or Drafting.

## General Education

Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education degree requirements.

## Required Program Core

Architecture (005)
121 Architectural Drawing I
122 Architectural Drawing II
123 Architectural Drawing III
166 Concepts of Planning
202 General Construction
Additional Required Program Core
Architecture (005)
170 Computer Aided Design I for Architectural Drafting Techniques
171 Computer Aided Design II for Architectural Drafting Techniques
172 Computer Aided Design III for Architectural Drafting Techniques
204 General Construction Advanced
266 Architectural Planning
Art (010)
Any drawing course
Mathematics (045)
143 Pre-Calculus or other Math course(s) recommended by a college Academic Advisor

## ELECTIVES

63 CH
18 CH33
21 CH4

TOTAL PROGRAM MINIMUM CREDIT HOURS
ARCHITECTURAL DRAFTING 124Basic Certificate (B.C.) 16 Credit Hours (CH)Architectural Drawing4
3
4
Basic Certificate (B.C.) 16 Credit Hours (CH)
Required Program Core 16 CH
Architecture (005)
121 Architectural Drawing I
202 General Construction ..... 4
204 General Construction Advanced ..... 4
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 16 CH
ARCHITECTURAL CAD 132
Basic Certificate (B.C.) 9 Credit Hours (CH)A Basic Certificate program in Architecture, CAD is awardedto students upon completion of the required program courses.
Note: Also, see Mechanical Technology CAD 163 Basic Certificate (9 Credit Hours). This certificate is the same as Architectural CAD 132 above with the exception that the courses are Mechanical Technology (049).
Required Program Core ..... 9 CH
Architecture (005)
170 Computer Aided Design I for Architectural ..... 3
Drafting Techniques
171 Computer Aided Design II for Architectural ..... 3
Drafting Techniques
172 Computer Aided Design III for Architectural Drafting Techniques ..... 3
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 9 CH
BRICKLAYER 760
Basic Certificate (B.C.) 16 Credit Hours (CH)
The Bricklayer program is designed to provide students witha basic understanding of the bricklaying trade. Students willreceive hands-on training in the building of solid walls andchimneys, using bricks and block and a range of bonds.Students will also learn basic blueprint reading.
Required Program Core ..... 16 CH
442 Introduction to Bricklaying ..... 3
443 Bricklaying Tools and Equipment ..... 2
428 Mortar ..... 3
429 Basic Mathematics and Specifications ..... 2
444 Bricklaying Installation Procedures ..... 3
767 Blueprint Reading ..... 2
B30BCM
532 Basic Computer Technology ..... 1
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 16 CH

## Programs of Study

Architecture and Construction

## BUILDING ENERGY TECHNOLOGIES 159

Basic Certificate (B.C.) 21 Credit Hours (CH)
The Building Energy Technologies program offers an occupational certificate to students seeking expertise in the practical application of energy efficiency and renewable energy systems in the building construction industries. Those with interest in building operation and assessment, the construction trades, contracting, energy consulting, and related occupations will obtain the knowledge to plan, implement, audit, operate, and optimize energy systems within a wide range of new and retrofit building types. An emphasis on integration into traditional building construction and operation allows the graduate to effectively coordinate with architects, engineers, and contractors on the installation and operation of those systems.

## Required Program Core

Environment Technology (027)
104 Energy Systems Fundamentals
114 Renewable Energy Systems
144 Building Systems Maintenance
204 Residential Energy Systems
214 Institutional Energy Systems
244 Energy Equipment Troubleshooting
TOTAL PROGRAM MINIMUM CREDIT HOURS

21 CH

## CAD TECHNOLOGY 144 <br> Associate in Applied Science degree (A.A.S.) 60 Credit Hours (CH)

The Computer-Aided Design (CAD) Technology Program provides the technical instruction and skill development for the graduate to become successfully employed in the drafting fields of the mechanical, architectural, and construction industry. Instruction is directed toward theoretical and technical skills in the use of modern drafting tools and equipment. Emphasis is placed on the training of computeraided design (CAD) techniques.
General Education ..... 17 CH
CIS (032)
120 Introduction to Microcomputers ..... 3
English (035)
101 Composition I ..... 3
Humanities/Social Science ..... 3
140 College Algebra ..... 4
Physics (077)
231 General Physics I: Mechanics \& Wave Motion ..... 4
See page 51 for A.A.S. general education degree requirements.
Required Program Core ..... 43 CH
CIS (032)
103 Intro to BASIC Language ..... 3
116 Intro to Operating Systems ..... 3
123 Intro to Spreadsheets on Microcomputers ..... 3
Engineering (034)
100 Elements of Engineering Drawing ..... 3
110 Introductory Drafting ..... 2
111 Intro to the Engineering Profession ..... 2
131 Engineering Graphics and Intro to Design ..... 3
132 Descriptive Geometry ..... 3
190 Computer Applications in Engineering ..... 3
202 Advanced Drafting and Basic Machine Design ..... 3
Mathematics (045)
141 Plane Trigonometry ..... 3
Mechanical Technology (049)
130 CAD Technology I ..... 3
170 CAD Technology II ..... 3
171 CAD Technology III ..... 3
172 CAD Technology IV ..... 3
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 60 CH

Note: This program was formerly known as Drafting and Machine Design 144.

# Programs of Study <br> Architecture and Construction 

## CAD TECHNOLOGY 138

Advanced Certificate (A.C.) 34 Credit Hours (CH)

Required Program Core<br>Engineering (034)<br>100 Elements of Engineering Drawing<br>131 Engineering Graphics and Intro to Design<br>132 Descriptive Geometry<br>190 Computer Applications in Engineering<br>202 Advanced Drafting and Basic Machine Design<br>Mathematics (045)<br>140 College Algebra<br>141 Plane Trigonometry<br>Mechanical Technology (049)<br>130 CAD Technology I<br>170 CAD Technology II<br>171 CAD Technology III<br>172 CAD Technology IV

TOTAL PROGRAM MINIMUM CREDIT HOURS
Note: This program was formerly known as Drafting and Machine Design 138.

## CAD TECHNOLOGY 139

Basic Certificate (B.C.) 16 Credit Hours (CH)

## Required Program Core

Mathematics (045)
140 College Algebra or
Cooperative Work Experience (108)
208 Engineering and Industrial Technologies
Mechanical Technology (049)
130 CAD Technology I
170 CAD Technology II 3
171 CAD Technology III 3
172 CAD Technology IV
TOTAL PROGRAM MINIMUM CREDIT HOURS
Note: This program was formerly known as Drafting and Machine Design 139.

34 CH

## CARPENTRY 780

Advanced Certificate (A.C.) 37 Credit Hours (CH)

## PROGRAMS OF STUDY

ARCHITECTURE AND CONSTRUCTION

## COMMUNICATIONS TECHNOLOGY 750 <br> Associate in Applied Science degree (A.A.S.) 65 Credit Hours (CH)

The Communications Technology A.A.S. degree is a cooperative effort between Richard J. Daley College and the "Electrical Joint Apprenticeship and Training Trust (EJATT)" which is made up of the National Electrical Contractors Association (NECA) and the International Brotherhood of Electrical Workers (IBEW) Local Union 134. Through the joint effort of the college and EJATT, the program is dedicated to consistently provide state-of-the art education and training to apprentices, and through them to the residential and commercial building contractors in the Chicago land area. This commitment to both the individual and industry requires not only providing electricians for today's market but also for tomorrow's market and future technologies.

Daley College and the EJATT are working cooperatively in ordertostructure the program to benefitthestudents in meeting their educational and career objectives while maintaining the integrity and quality of the program. Selection for admission into the program is a rigorous process which functions to ensure that the most qualified candidates are selected by both the City Colleges of Chicago and the selection process established by the EJATT Local Union 134, which follows the guidelines of federal and state laws regulating admission into a registered apprenticeship program.

1. Graduation from an accredited high school or acceptable scores on the General Education Development (GED) test. Foreign and domestic high school education or domestic GED must be validated by official transcripts. Official transcripts will be accepted in place of the high school diploma if the graduation date is provided.
2. At least 18 years old, prior to application.
3. Have taken two semesters of algebra (at high school or college) with a minimum of "C" grade in each semester, completed prior to application. An official transcript is required.
4. Have acceptable physical health as determined by a physician to be able to safely perform the tasks of a construction electrician, including drug testing.
5. Have evidence of a qualifying grade on an aptitude test as prescribed by the EJATT Local Union 134. The aptitude test covers English and Mathematics comprehension along with a spatial ability evaluation.

Each student must achieve a minimum grade of C for all courses required to complete the degree. An overall grade point average of 2.0 or better must be maintained
General Education ..... 15 CH
English (035)
101Composition ..... 3
History (085)
113 U.S. Labor History ..... 3
Psychology (087)
206 Business \& Industrial Psychology ..... 3
210 Principles of Supervisory Psychology ..... 3
432 IBEW714 Technical Math I3
Required Program Core ..... 50 CH
432IBEW
704 Construction Technology ..... 4.5
705 Print Reading I ..... 3.5
707 Fire Alarm Systems ..... 3.5
709 Print Reading II ..... 3.0
711 Communications ..... 4.0
715 Technical Math II ..... 3.0
716 Electronics ..... 4.5
717 Structured Wiring ..... 4.5
718 Integrated System I ..... 3.5
719 Integrated Systems II ..... 4.5
720 Communications Systems Verification ..... 3.5
721 Fiber Optics ..... 3.5
722 Computer Networking ..... 4.5
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 65 CH

## CONCRETE MASONRY 759

Basic Certificate (B.C.) 16 Credit Hours (CH)
Training consists of an orientation to the cement masonry trade, industry terminology, and blueprint reading. Hands-on training includes the proper use and maintenance of tools, job safety procedures, and how to build a sandbox. Students will learn the basic ingredients of concrete, rodding placement and floating, basic set-up and form work, and clean-up.Required Program Core16 CH332TECH
426 Introduction to Concrete Masonry ..... 3
427 Masonry Tools and Equipment ..... 2
428 Mortar ..... 3
429 Basic Mathematics and Specifications ..... 2
430 Masonry Installations Procedures ..... 3
767 Blueprint Reading ..... 2
330BSCM
532 Basic Computer Technology ..... 1
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 16 CH

# Programs of Study <br> Architecture and Construction 

## CONSTRUCTION CARPENTRY 775

Basic Certificate (B.C.) 16 Credit Hours (CH)
The objective of the Construction Carpentry Program is to prepare the student for an entry level apprentice position with a construction contractor. This one semester program provides instruction in: tool safety and usage, construction materials, work site safety, blueprint reading, and mathematical concepts. Course content also includes an introduction to the trades and basic ARC welding. Theory and practical "handson" application are emphasized throughout the program. Students will receive the OSHA Construction Safety and Health 10-hour Certification and Scaffold Certification upon successful completion of the certificate program.

| Required Program Core | $\mathbf{1 6}$ CH |
| :--- | ---: |
| 332TECH |  |
| 401 Introduction to Labor and Trade Occupations | 2 |
| 409 Construction Safety | 1 |
| 429 Basic Mathematics and Specifications | 2 |
| 432 Basic ARC Welding | 1 |
| 448 Vocational Physical Training I | 1 |
| 581 Concrete Framing | 2 |
| 582 Residential Carpentry | 2 |
| 583 Basic Hand Tools | 2 |
| 767 Blueprint Reading I | 2 |
| 330BSCM | 1 |
| 532 Basic Computer Technology | 16 CH |

Required Program Core
401 Introduction to Labor and Trade Occupations
409 Construction Safety
429 Basic Mathematics and Specifications
432 Basic ARC Welding
448 Vocational Physical Training I
581 Concrete Framing
582 Residential Carpentry
583 Basic Hand Tools
767 Blueprint Reading I
330BSCM
532 Basic Computer Technology
TOTAL PROGRAM MINIMUM CREDIT HOURS

## CONSTRUCTION MANAGEMENT 375 <br> Associate in Applied Science degree (A.A.S.) 65 Credit Hours (CH)

The Construction Management program is a sixty-five credit hour program that leads to an Associate in Applied Science degree in Construction Management. Students receive the education, training, and business knowledge necessary for employment in the construction industry. The program offers classroom and lab experiences led by instructors who are experienced as superintendents or project managers for some of the largest construction firms in the country.
General Education ..... 15 CHStudents should meet with a college Academic Advisorfor selection of specific course requirements for the 15.0 credithour minimum general education portion of the A.A.S. degree.
See page 51 for A.A.S. general education degree requirements.
Required Program Core ..... 41 CH
Business (030)
181 Financial Accounting ..... 4
269 Principles of Management ..... 3
CIS (032)
120 Introduction to Microcomputers ..... 3
432CMGT
601 Introduction to Construction ..... 2
602 Methods of Building Construction ..... 3
603 Building Materials and Testing ..... 3
604 Blueprint and Specifications ..... 3
605 Construction Cost Estimating ..... 3
606 Construction Contracting Specifications ..... 3
607 Construction Scheduling/Management ..... 3
608 Project Management ..... 3
609 Construction Safety II ..... 3
English (035)
107 Report Writing ..... 3
332TECH
449 Professional Development ..... 2
ELECTIVES ..... 9 CHConsult with a college Academic Advisor for selectionof a minimum of three courses from the following disciplines:Business, CIS, Construction Technology and Environmental Science.
TOTAL PROGRAM MINIMUM CREDIT HOURS65 CH

# PROGRAMS OF STUDY 

Architecture and Construction

CONSTRUCTION PAINTER 768<br>Basic Certificate (B.C) 16 Credit Hours (CH)

Students will learn the basic painting techniques and practices currently used in the industry. Program content includes safe and efficient work practices; drywall taping; paint mixing and matching; application procedures; math; and the use, selection, application, and care of materials and tools. Students will also learn basic computer skills and employability skills. Graduates of the program will be prepared to work as a painter helper, painter, or drywall taper.

Required Program Core<br>332TECH<br>409 Construction Safety<br>448 Vocational Physical Training I<br>449 Professional Development<br>465 Painting and Decorating<br>466 Introduction to Painting<br>467 Introduction to Painting Tools<br>468 Basic Taping<br>330BSCM<br>532 Basic Computer Technology<br>Mathematics (045)<br>107 Math for Technicians I<br>\section*{TOTAL PROGRAM MINIMUM CREDIT HOURS}<br>\section*{ELECTRICAL CONSTRUCTION TECHNOLOGY 752}<br>Associate in Applied Science degree (A.A.S.)<br>65 Credit Hours (CH)

The Electrical Construction Technology A.A.S. degree is a cooperative effort between Richard J. Daley College and the "Electrical Joint Apprenticeship and Training Trust (EJATT)" which is made up of the National Electrical Contractors Association (NECA) and the International Brotherhood of Electrical Workers (IBEW) Local Union 134. Through the joint effort of the college and EJATT, the program is dedicated to consistently providing state-of-the art education and training to apprentices, and through them to the residential and commercial building contractors in the Chicago land area. This commitment to both the individual and industry requires not only providing electricians for today's market but also looking toward tomorrow's market and future technologies.

Daley College and the EJATT are working cooperatively in order to structure the program to benefit the students in meeting their educational and career objectives while maintaining integrity and quality within the program. Selection for admission into the program is a rigorous process which functions to ensure that the most qualified candidates are selected by both the City Colleges of Chicago and the selection process established by the EJATT Local Union 134 which follows the guidelines of federal and state laws regulating admission into a registered apprenticeship program.

1. Graduation from an accredited high school or acceptable scores on the General Education Development (GED) test. Foreign and domestic high school education or domestic GED must be validated by official transcripts. Official transcripts will be accepted in place of the high school diploma if the graduation date is provided.
2. At least 18 years old, prior to application.
3. Have taken two semesters of algebra (at high school or college) with a minimum of " $C$ " grade in each semester, completed prior to application. An official transcript is required.
4. Have acceptable physical health as determined by a physician to be able to safely perform the tasks of a construction electrician, including drug testing.
5. Have evidence of a qualifying grade on an aptitude test as prescribed by the EJATT Local Union 134. The aptitude test covers English and Mathematics comprehension along with a spatial ability evaluation.

Each student must achieve a minimum grade of $C$ for all courses required to complete the degree. An overall grade point average of 2.0 or better must be maintained.

General Education 15 CH
English (035)
101 Composition 3
History (085)
113 U.S. Labor History 3

Psychology (087)
206 Business \& Industrial Psychology 3
210 Principles of Supervisory Psychology 3
432IBEW
714 Technical Math I
Required Program Core 50 CH
432IBEW
702 Electrical Circuitry 4.5
703 Conduit Bending I 3.5
704 Construction Technology 4.5
705 Print Reading I 3.5
706 Conduit Bending II 3.5
707 Fire Alarm Systems 3.5
708 Motor Control Systems 3.5
709 Print Reading II
710 Programmable Control 4.5
711 Communications 4.0
712 H.V.A.C. Systems 4.5
713 Instrumentation 4.5
715 Technical Math II 3.0
TOTAL PROGRAM MINIMUM CREDIT HOURS

# Programs of Study <br> <br> Architecture and Construction 

 <br> <br> Architecture and Construction}

## ELECTRICAL LINE WORKER (OVERHEAD) 766 <br> Advanced Certificate (A.C.) 30 Credit Hours (CH)

The Overhead Electrical Line Worker program is structured to meet the current need for overhead electricians/electrical line workers in the electrical power industry. Upon completion, students who graduate from this program will be prepared to work as apprentices in the electric utility industry.
Required Program Core
332TECH
448 Vocational Physical Training I
449 Professional Development
452 Basic Electrical Theory
453 Overhead Techniques \& Projects I
458 Overhead Techniques \& Projects II
459 Construction Safety \& Rescue
462 Vocational Physical Training II
463 Vocational Physical Training III
464 Power Equipment Operation
English (035)
197 Communication Skills
Mathematics (045)
107 Technical Math

TOTAL PROGRAM MINIMUM CREDIT HOURS

## MECHANICAL TECHNOLOGY CAD 163 <br> Basic Certificate (B.C.) 9 Credit Hours (CH)

ABasic Certificate in Mechanical Technology, CAD is awarded to students upon completion of the required program courses.

Note: Also, see Architectural CAD 132 Basic Certificate (9 Credit Hours). This certificate is the same as Mechanical Technology CAD above, with the exception that the courses are Architecture (005).

## Required Program Core

Mechanical Technology (049)
170 CAD Technology II
171 CAD Technology III
172 CAD Technology IV
TOTAL PROGRAM MINIMUM CREDIT HOURS

30 CH

## PLUMBING AND FIRE PROTECTION 753 <br> Basic Certificate (B.C.) 16 Credit Hours (CH)

The Plumbing and Fire Protection program is designed to introducestudentstoplumbingandsprinklersystems. Students will be taught in the classroom and shop environment, with theory and hands-on applications. Upon successful completion of this program, the student will be qualified to work as a plumber's assistant and/or fitter assistant.

## Required Program Core <br> 16 CH

332TECH
434 Introduction to Plumbing 3
435 Plumbing Tools and Equipment 2
436 Plumbing Codes 1
437 Basic Plumbing Related Mathematics 1
438 Introduction to Fire Protection 3
439 Home Plumbing Systems 4
432 Basic ARC Welding 1
330BSCM
532 Basic Computer Technology 1
TOTAL PROGRAM CREDIT HOURS
16 CH

WELDER (COMBINATION) 758
Basic Certificate (B.C.) 16 Credit Hours (CH)
The Combination Welder program is designed to provide students with training in basic welding skills in a shop setting. In addition to learning welding mathematics, blueprint reading, layout and fabrication, students are also introduced to the basic fundamentals of job safety and ethics. Graduates of this program are qualified for entry level employment as an ARC, MIG, or TIG welder.

## Required Program Core

332TECH
509 Intro to Basic ARC Welding 3
510 Blueprint, Layout and Fabrication 2
518 Manufacturing Materials \& Processes 1
520 ARC Welding 4
526 Welding Mathematics I 1
530 Advanced Welding 4
330BSCM
532 Basic Computer Technology 1
TOTAL PROGRAM MINIMUM CREDIT HOURS 16 CH

# Programs of Study <br> ARTS, A/V TECHNOLOGY \& COMMUNICATIONS 

## DIGITAL MULTIMEDIA DESIGN 350 <br> Associate in Applied Science degree (A.A.S.) 67 Credit Hours (CH)

The Digital Multimedia Design Program is designed to prepare students for entry-level positions in the field of interactive and multimedia design and for possible transfer into a four-year institution. Requirements for a major in Digital Multimedia Design will equip students with the necessary skills, both technically and aesthetically, to create digital multimedia presentations. Output can be delivered on CD, DVD, video, or in the form of web pages over the Internet.
The program has three required areas of specialization: 1) Video \& Sound, 2) 3D Graphics, and 3) Interactive Media.

Note: Also see individual Basic Certificate programs for Video \& Sound 352, 3D Graphics 353, and Interactive Media 354.

## General Education

Biology (023) or Physical Science (076)
Any IAI approved course
English (035)
101 Composition
Fine Arts (042)
107 History of Architecture, Painting, and Sculpture I
Math (045)
118 General Education Math or higher
Social Science (088)
16 CH

Students should meet with a college Academic Advisor
for selection of remaining course requirements for the general education portion of the A.A.S. degree.

## See page 51 for A.A.S. general education degree requirements.

## Required Program Core

Art (010)
131 General Drawing
142 Figure Draw and Composition
144 Two Dimensional Design
145 Three Dimensional Design
Digital Multimedia (138)
168 Advanced Computer Art I
299 Portfolio Development
Fine Arts (042)
104 The World of Cinema
108 History of Architecture, Painting and Sculpture II

## Specialization Areas

1) Video \& Sound

Digital Multimedia (138)
115 Digital Soundtrack
179 Video I
279 Video II
24 CH
2) 3D Graphics ..... 9 CHDigital Multimedia (138)105 Animation3
121 3D Graphics I ..... 3
221 3D Graphics II ..... 3
3) Interactive Media ..... 9 CH
Digital Multimedia (138)131 Multimedia I3
231 Multimedia II ..... 3
233 Multimedia IIITOTAL PROGRAM MINIMUM CREDIT HOURS67 CH
DIGITAL MULTIMEDIA DESIGN 351Advanced Certificate (A.C.) 36 Credit Hours (CH)
Required Program Core ..... 27 CH
Art (010)
131 General Drawing ..... 3
142 Figure Draw and Composition ..... 3
144 Two Dimensional Design ..... 3
145 Three Dimensional Design ..... 3
CIS (032)
120 Introduction to Microcomputers ..... 3
Digital Multimedia (138)
168 Advanced Computer Art I ..... 3
Fine Arts (042)
104 The World of Cinema ..... 3
107 History of Architecture, Painting and Sculpture I ..... 3
108 History of Architecture, Painting and Sculpture II ..... 3
Specialization Areas9 CH

Choose one area of specialization from the three listed below:

1) Video \& Sound

Digital Multimedia (138)
115 Digital Soundtrack (3)
179 Video I (3)
279 Video II (3) OR
2) 3D Graphics

Digital Multimedia (138)
105 Animation (3)
121 3D Graphics I (3)
221 3D Graphics II (3) OR
3) Interactive Media

Digital Multimedia (138)
131 Multimedia I (3)
231 Multimedia II (3)
233 Multimedia III (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS

## PROGRAMS OF STUDY

Arts, A/V TECHNOLOGY \& COMMUNICATIONS

DIGITAL MULTIMEDIA: VIDEO \& SOUND 352
Basic Certificate (B.C.) 18 Credit Hours (CH)

## Required Program Core

Art (010)
144 Two Dimensional Design
CIS (032)
120 Introduction to Microcomputers
Digital Multimedia (138)
115 Digital Sound Track
168 Advanced Computer Art I
179 Video I
279 Video II

## TOTAL PROGRAM MINIMUM CREDIT HOURS

DIGITAL MULTIMEDIA: 3D GRAPHICS 353
Basic Certificate (B.C.) 21 Credit Hours (CH)

## Required Program Core

Art (010)
144 Two Dimensional Design
145 Three Dimensional Design
CIS (032)
120 Introduction to Microcomputers
Digital Multimedia (138)
105 Animation
121 3D Graphics I
168 Advanced Computer Art I
221 3D Graphics II
TOTAL PROGRAM MINIMUM CREDIT HOURS

DIGITAL MULTIMEDIA: INTERACTIVE MEDIA 354
Basic Certificate (B.C.) 18 Credit Hours (CH)
Required Program Core
Art (010)
144 Two Dimensional Design
CIS (032)
120 Introduction to Microcomputers
Digital Multimedia (138)
131 Multimedia I
168 Advanced Computer Art I
231 Multimedia II
233 Multimedia III
TOTAL PROGRAM CREDIT HOURS

## MEDIA COMMUNICATIONS 083 <br> Associate in Applied Science Degree (A.A.S.) 63 Credit Hours (CH)

18 CH

18 CH
 Stuc scripting, editing, sound, and producing techniques. udents will assume roles as producers, directors, camera operators and video editors. Pre-and post-production, scripting, graphics, lighting, legal requirements, and nonlinear video editing skills will be emphasized.

Required Specialty Area (1) Courses for
Audio/Video/Internet/Production (AVIP)
Media Communications (011)
170 History of Television
203 Media Writing
231 TV Production I
232 TV Production II
240 Mini-Cam and Videotape Editing

## Elective Courses for Audio/Video/Internet/ Production (AVIP)

Select three courses from the following.
Entrepreneurship (143)
201 Introduction to Entrepreneurship (3)
202 Opportunity Recognition Development (3)
204 Entrepreneurial Marketing and Sales (3)
Media Communications (011)
234 Producing for Television (3)
241 Video Editing (3)
242 Television Graphics (3)
244 Advanced Videography, Gripping and Lighting Techniques (3)
245 Advanced Production Workshop (3)
260 Media Sales and Marketing (3)
261 Project Management \& Team Dynamics (3)
270 Introduction to Radio and TV Programming (3)
272 Advanced Audio/Video Production for Interactive Media (3) Speech (095)
160 Business and Professional Speech (3)

## SPECIALTY AREA (2)

## RADIO PRODUCTION AND BROADCASTING

The Radio Production/Broadcasting course of study provides a comprehensive overview of the Media Communications industry with a concentration in radio. The program provides a real world, hands-on overview of the art and business of radio broadcasting, while developing in-depth knowledge and skills regarding the total operation of a radio station, including the history of radio broadcasting from its inception to the latest radio technology. The program will train students in the areas of on-air talent, production, programming, or business, which includes radio marketing, promotions, and sales.

Required Specialty Area (2) Courses for
18 CH
Radio Production and Broadcasting
Media Communications (011)
102 Announcing
160 History of Radio Genres
203 Media Writing
221 Radio Production I
222 Radio Production II
260 Media Sales and Marketing

## 15 CH

## Elective Courses for Radio Production and Broadcasting <br> Select two courses from the following: <br> English (035) <br> 105 Business Writing (3) <br> 107 Report Writing (3) <br> Entrepreneurship (143) <br> 201 Introduction to Entrepreneurship (3) <br> 202 Opportunity Recognition Development (3) <br> 204 Entrepreneurial Marketing \& Sales (3) <br> Media Communications (011) <br> 224 Broadcast Performance (3) <br> 261 Project Management \& Team Dynamics (3) <br> Speech (095) <br> 160 Business and Professional Speech (3) <br> SPECIALTY AREA (3) <br> MEDIA SALES AND MARKETING

The curriculum for Sales and Marketing as part of the Media Communications program is designed to put graduates on the front lines of the business world and, more specifically, to prepare students to understand and communicate the value of media properties (TV, radio, newspaper and Internet). Each course in the Sales and Marketing program is focused and detailed, yet part of a broad-based curriculum that balances relevant management principles with hands-on marketing procedures and techniques.
Required Specialty Area (3) Courses for ..... 21 CH
Media Sales and Marketing
Business (030)
231 Principles of Marketing ..... 3
236 Advertising ..... 3
237 Selling ..... 3
English (035)
105 Business Writing or107 Report Writing3
Entrepreneurship (143)
201 Introduction to Entrepreneurship ..... 3
Media Communications (011)
260 Media Sales and Marketing ..... 3
Speech (095)
160 Business and Professional Speech ..... 3
Elective Courses for Media Sales and Marketing ..... 3 CH
Select one course from the following:

230 E-Business Marketing (3)
272 Sales Management (3)
Entrepreneurship (143)
202 Opportunity Recognition Development (3)
204 Entrepreneurial Marketing \& Sales (3)
Psychology (087)
206 Business and Industrial Psychology (3)
Speech (095)
102 Public Speaking (3)

## PROGRAMS OF STUDY

ARTS, A/V TECHNOLOGY \& COMMUNICATIONS

## SPECIALTY AREA (4) <br> INTERACTIVE MEDIA DESIGN

Students will learn the basic principles of graphic design and e-design as they relate to designing for the Internet and multimedia. The program will introduce time-based interactive design, animation, audio, and digital video. The students will learn to create interactive experiences, develop original concepts, and take a project from storyboarding to production. Narrative, linear, and non-linear structures will be analyzed as well as advanced navigation schemes and dynamic web strategies.

## Required Specialty Area (4) Courses for Interactive Media Design <br> Visual Communications (009) <br> 102 Web Design I <br> 103 Commercial Photography <br> 122 Graphics Software <br> 132 Publication Design <br> 201 Design Management <br> 202 Web Design II <br> 212 Motion Graphics I <br> Elective Courses for Interactive Media Design

Select one course from the following:
Art (010)
141 Intro to the Visual Arts (3)
Entrepreneurship (143)
201 Intro to Entrepreneurship (3)
202 Opportunity Recognition and Development (3)
204 Entrepreneurial Marketing and Sales (3)
Media Communications (011)
203 Media Writing (3)
241 Video Editing (3)
272 Advanced Audio \&Video Production for Interactive Media (3)
Psychology (087)
206 Business and Industrial Psychology (3)
(Prerequisite: Psych 201)

## MUSIC BUSINESS 093 <br> Basic Certificate (B.C.) 21 Credit Hours (CH)

Students enrolled in the Music Business certificate program will study the techniques and standards needed for a career as a manager, publisher, professional musician, or agent. Completion of the Music Business program can lead to employment with such businesses as recording companies, management firms, publishing companies, music festivals, or music production companies. Practical experience within the music industry is included. The field is highly competitive, but employment opportunities are expanding rapidly.

## Required Program Core <br> 21 CH

Business (030)
111Introduction to Business 3
231 Marketing 3
Music (060)
102 Music Theory I 3
105 Group Piano I 2
111 Aural \& Keyboard Skills I 2
120 Introduction to Music Business 3
221 Music Literature and History 3
225 Individual Project/Service Learning 2
TOTAL PROGRAM MINIMUM CREDIT HOURS
21 CH

## MUSIC TECHNOLOGY 094 <br> Basic Certificate (B.C.) 26 Credit Hours (CH)

The basic certificate in Music Technology offers the study of techniques and standards needed for careers as a recording engineer, producer, professional musician, or composer/ arranger. Completion of the certificate program can lead to employment with such businesses as advertising agencies, recording studios, recording companies, video game companies, publishing companies, radio stations, or as a free-lance artist. The field is highly competitive, but employment opportunities are expanding rapidly.

| Required Program Core | $\mathbf{2 6}$ CH |
| :--- | ---: |
| Digital Multimedia (138) | 3 |
| 115 Digital Soundtrack |  |
| Music (060) | 3 |
| 102 Music Theory I | 3 |
| 103 Music Theory II | 2 |
| 105 Group Piano I | 2 |
| 106 Group Piano II | 2 |
| 111 Aural \& Keyboard Skills I | 2 |
| 112 Aural \& Keyboard Skills II | 2 |
| 204 Commercial Music Workshop I | 2 |
| 205 Commercial Music Workshop II | 3 |
| 221 Music Literature and History | 2 |
| 225 Individual Project |  |
| TOTAL PROGRAM MINIMUM CREDIT HOURS | $\mathbf{2 6} \mathbf{C H}$ |

Digital Multimedia (138)
115 Digital Soundtrack3
Music (060)
102 Music Theory I 3
103 Music Theory II 3
105 Group Piano I 2
106 Group Piano II 2
111 Aural \& Keyboard Skills I 2
112 Aural \& Keyboard Skills II 2
204 Commercial Music Workshop I 2
205 Commercial Music Workshop II 2
221 Music Literature and History 3
TOTAL PROGRAM MINIMUM CREDIT HOURS 26 CH

# PROGRAMS OF STUDY <br> ARTS, A/V TECHNOLOGY \& COMMUNICATIONS 

## THEATER ART 085

Associate in Applied Science degree (A.A.S.) 62 Credit Hours (CH)

The study of acting, stagecraft, make-up, other technical skills of theater production can lead to employment as a set builder, apprentice set painter, stage designer, assistant to costumer or make-up artist, light and sound technician, or assistant to the manager.

## General Education

Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education degree requirements.
Required Program Core
40 CH
Theater Art (099)
130 Stagecraft
131 Introduction to Theater

## 133 Acting I

134 Theater in the Modern World
136 Make-Up Stage Screen and TV
137 Stage Lighting
138 Topics in Theater
140 Sound for Theater
141 Costumes and Wardrobe
230 Stage Management
233 Theater Design
235 Acting II
237 Theater Production and Management

## Electives

(minimum) 7 CH
The following Theater Arts course is recommended:
(Consult with a college Academic Advisor for other elective course selections.)

135 Theater and Special Projects (1)
TOTAL PROGRAM MINIMUM CREDIT HOURS

## THEATER TECHNOLOGY 086

Advanced Certificate (A.C.) 35 Credit Hours (CH)
Required Program Core ..... 35 CH
Theatre Art (099)130 Stagecraft3
131 Introduction to Theater ..... 3
132 Theater Production, Direction and Management ..... 4
133 Acting I ..... 3
134 Theater in the Modern World ..... 3
135 Theater and Speech Projects ..... 1
136 Make-up Stage Screen and TV ..... 2
137 Stage Lighting ..... 3
143 Acting Workshop ..... 2
144 Practice in Modern Theater ..... 2
232 Theater Workshop ..... 3
Cooperative Work Experience (008) ..... 6
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 35 CH
VISUAL MEDIA COMMUNICATIONS 165
Associate in Applied Science degree (A.A.S.)

60 Credit hours (CH)

The Visual Media Communications program is a creative hybrid learning environment that challenges students to acquire competent skills in art, graphics, website, and animation design. Students train as visual designers and entrepreneurs in the visual communication industry.

The program offers a 60 credit hour A.A.S. with a concentration in Graphic Design. Graduates are prepared to transfer to a four-year institution. Graduates real world design projects will be documented in a website and traditional portfolio for future employment and client presentations.

| General Education | 15 CH |
| :--- | ---: |
| English (035) | 3 |
| 101 Composition | 4 |
| Mathematics (045) |  |
| 118 General Education Mathematics | 3 |
| Fine Arts (042) <br> 107 History of Architecture, Painting \& Sculpture |  |
| Students should meet with a college Academic Advisor for selection <br> of remaining course requirements for the general education portion <br> of the A.A.S. degree. |  |

See page 51 for A.A.S. general education requirements.

## PROGRAMS OF STUDY

Arts, A/V TECHNOLOGY \& COMMUNICATIONS

## Required Program Core

Visual Communications (009)
101 Introduction to Visual Communications
102 Website Design I
103 Commercial Photography
110 Production Printing
122 Graphic Software
132 Publication Design
134 Logo Identity Design
201 Design Management
202 Website Design II
212 Motion Graphics I
224 Digital Typography
Electives (Recommended)
Art (010)
131 General Drawing (3)
144 Two-Dimensional Design (3)
CIS (032)
181 Web Development I/Basic Web Tech. (3)
Cooperative Work Experience (008)
CWE 108 (6)
Media Communications (011)
271 Introduction to interactive Media (3)

## TOTAL PROGRAM MINIMUM CREDIT HOURS

VISUAL MEDIA COMMUNICATIONS 166
Advanced Certificate (A.C.) 30 Credit Hours (CH)
Required Program Core
Visual Communications (009)
101 Introduction to Visual Communication
103 Commercial Photography
122 Graphic Software
132 Publication Design
134 Logo Identity Design
224 Digital Typography
Electives (Recommended)
Cooperative Work Experience (008)
CWE 108 (6)
Visual Communications (009)
102 Website Design I (3)
201 Design Management (3)

## TOTAL PROGRAM MINIMUM CREDIT HOURS

33 CH
VISUAL MEDIA COMMUNICATIONSIANIMATION 194 Basic Certificate (B.C.) 15 Credit Hours (CH)
Required Program Core ..... 15 CH
Visual Communications (009) 102 Website Design I ..... 3
134 Logo Identity Design ..... 3
122 Graphic Software ..... 3
202 Website Design II ..... 3
212 Motion Graphics I ..... 3
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 15 CH
VISUAL MEDIA COMMUNICATIONS/PAGE LAYOUT 192Required Program Core15 CH
Visual Communications (009)
103 Commercial Photography ..... 3
122 Graphic Software ..... 3
132 Publication Design ..... 3
134 Logo Identity Design ..... 3
224 Digital Typography ..... 3
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 15 CH
60 CH
VISUAL MEDIA COMMUNICATIONS/
WEB PAGE DESIGN 193
Basic Certificate (B.C.) 15 Credit Hours (CH)
18 CH3Required Program Core15 CHVisual Communications (009)
102 Website Design I3
132 Publication Design ..... 3
202 Website Design II ..... 3
212 Motion Graphics I ..... 3
224 Digital Typography ..... 3
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 15 CH


## Programs of Study

Business, Management, Administration \& Finance

## ACCOUNTING 001 <br> Associate in Applied Science degree (A.A.S.) 60 Credit Hours (CH)

Accounting is the study of the basic accounting skills, which can lead to various levels of accounting positions in accounting firms, retail stores, manufacturing, service business, and small business employment as a junior member of an accounting staff, estimator, credit analyst, budget or general accountant, bank teller, and accounts receivable or accounts payable clerk.

## General Education

15 CH
Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education degree requirements.

## Required Program Core

36 CH
Business (030)
111 Introduction to Business
141 Business Mathematics or other Mathematics course (045) 118 or above
181 Financial Accounting
182 Managerial Accounting
204 Computer Apps Intermediate Accounting
205 Intermediate Accounting
206 Auditing
208 Federal Income Tax
211 Business Law I OR
214 Legal \& Social Environment Business
241 Introduction to Finance
250 Computerized Accounting Systems
CIS (032)
120 Intro to Microcomputers

## Electives

Select three courses from the following Business or CIS disciplines or other recommended courses by a college Academic Advisor:
Business (030)
203 Introduction to Cost Accounting (3)
CIS (032)
CIS 123 Introduction to Spreadsheets on Microcomputers (3)
CIS 145 Intro to Data Base on Microcomputers (3)
CIS 158 Beginning Internet (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS
ACCOUNTING 003
Advanced Certificate (A.C.) 30 Credit Hours (CH)
Required Program Core ..... 21 CH
Business (030)
111 Introduction to Business ..... 3
181 Financial Accounting ..... 4
182 Managerial Accounting ..... 4
204 Computer Apps Intermediate Accounting ..... 1
205 Intermediate Accounting ..... 3
208 Federal Income Tax ..... 3
241Introduction to Finance ..... 3
Electives ..... 9 CH
Select three courses from the following Business or CISdisciplines or other recommended courses by a collegeAcademic Advisor:
Business (030)
141 Business Mathematics (3)
203 Introduction to Cost Accounting (3)
206 Auditing (3)
211 Business Law I (3)
250 Computerized Accounting Systems
CIS (032)
120 Introduction to Microcomputers (3)
123 Into to Spreadsheets on Microcomputers (3)
145 Intro to Data Base on Microcomputers (3)
158 Beginning Internet (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 30 CH
ACCOUNTING 002
Basic Certificate (B.C.) 17 Credit Hours (CH)
Required Program Core ..... 17 CH
Business (030)
181 Financial Accounting ..... 4
182 Managerial Accounting ..... 4
Select three courses from the following Business or CIS disciplines: ..... 9
Business (030)
111 Introduction to Business (3)
141 Business Mathematics (3)
203 Introduction to Cost Accounting (3)
204 Computer Apps Intermediate Accounting (1)
205 Intermediate Accounting (3)
206 Auditing (3)
211 Business Law I (3)
208 Federal Income Tax (3)
250 Computerized Accounting Systems
IS (032)
120 Introduction to Microcomputers ..... (3)
123 Introduction to Spreadsheets on Microcomputers ..... (3)
145 Intro to Data Base on Microcomputers (3)158 Beginning Internet (3)

BUSINESS ADMINISTRATION/GENERAL BUSINESS 042
Advanced Certificate (A.C.) 30 Credit Hours (CH)
The study of basic Business Administration leads to employment in management positions in business, industry or government such as accounting, economics, finance, labor economics, marketing, and personnel management.

## Required Program Core

Business (030)
111 Intro to Business
181 Financial Accounting
182 Managerial Accounting
211 Business Law I OR
214 Legal \& Social Environment of Business
CIS (032)
120 Intro to Microcomputers
Economics (082)
201 Principles of Economics I

## Electives

Students should meet with a college Academic Advisor for selection of the recommended elective courses shown below: Business (030)
203 Introductory Cost Accounting (3)
204 Computer Applications in Accounting (1)
205 Intermediate Accounting I (3)
212 Business Law II (3)
230 E-Business (3)
231 Principles of Marketing (3)
232 Fundamentals of International Business (3)
241 Introduction to Finance (3)
269 Principles of Management (3)
CIS (032)
101 Intro to Computer Information Systems (3)
Economics (082)
201 Principles of Economics I (3)
202 Principles of Economics II (3)
Entrepreneurship (143)
201 Intro to Entrepreneurship (3)
202 Opportunity/Recognition/Development (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS
20 CH
30 CH

## FINANCE 388

Advanced Certificate (A.C.) 31 Credit Hours (CH)
The study of basic financial skills leads to employment as a junior financial analyst, personal financial assistant, financial products sales representative, and credit analyst.
Required Program Core ..... 25 CH3
3141 Business Mathematics or higher ..... 3
4181 Financial Accounting ..... 4
4241 Introduction to Finance ..... 3
242 Financial Markets \& Institutions ..... 3
3243 Fundamentals of Investment ..... 3
244 Personal Finance ..... 3
3255 Corporate Finance ..... 3
Electives6 CH
Students should meet with a college Academic Advisor forselection of elective courses.
TOTAL PROGRAM MINIMUM CREDIT HOURS31 CH
LIBRARY TECHNICAL ASSISTANT 303
Associate in Applied Science degree (A.A.S.)
60 Credit Hours (CH)
The A.A.S. in Library Science can lead to employment as anassistant to a professional librarian in cataloguing periodicals,multi-media or information services of public, private,industrial, or school libraries.
General Education ..... 18 CH
Students should meet with a college Academic Advisor forselection of specific course requirements for the generaleducation portion of the A.A.S. degree.
See page 51 for A.A.S. general education degree requirements.
Required Program Core24 CH
CIS (032)
120 Introduction to Microcomputers ..... 3
158 Beginning Internet ..... 3Library Technology (050)
101 Introduction to Library Procedures ..... 3
102 Multi-Media Technologies ..... 3
125 Learning Resource/Library Practicum ..... 6
201 Library Public Service ..... 3
203 Materials Preparation Procedures ..... 3
Electives ..... 18 CHStudents should meet with a college Academic Advisor forselection of elective courses.
TOTAL PROGRAM MINIMUM CREDIT HOURS60 CH

# Programs of Study <br> Business, Management, Administration \& Finance 

LIBRARY TECHNICAL ASSISTANT 330<br>Basic Certificate (B.C.) 12 Credit Hours (CH)<br>Required Program Core<br>Library Technology (050)<br>101 Introduction to Library Procedures<br>102 Multi-Media Technologies<br>201 Library Public Service<br>203 Materials Preparation Procedures

## TOTAL PROGRAM MINIMUM CREDIT HOURS

## MANAGEMENT/MARKETING 021

Associate in Applied Science degree (A.A.S.) 62 Credit Hours (CH)
The study of basic business skills along with more in-depth study in a chosen field such as management, marketing, or entrepreneurship, can lead to employment as assistant, trainee, supervisor, or manager in manufacturing, merchandising, or service firms, or government service. The A.A.S. also prepares graduates to start a business or improve their operation of a currently existing business.

## General Education

15 CH
Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.
See page 51 for A.A.S. general education degree requirements.

## Required Program Core

Business (030)
111 Introduction to Business
141 Business Mathematics OR other Mathematics course (045) 118 or above
181 Financial Accounting
182 Managerial Accounting
211 Business Law I OR
212 Business Law II OR
214 Legal \& Social Environment Business
231 Marketing
241 Introduction to Finance
269 Principles of Management
CIS (032)
120 Intro to Microcomputers

## Business Electives

Select three courses from the following Business discipline or other recommended courses by a college Academic Advisor:
Business (030)
203 Introduction to Cost Accounting (3)
204 Computer Applications Inter. Accounting (1)
206 Auditing (3)
208 Federal Income Tax (3)
216 Entrepreneurship (3)
250 Computerized Accounting Systems (3)
271 Human Resources Management (3)
CIS ElectivesThe following CIS courses are recommended:CIS (032)
123 Intro to Spreadsheets on Microcomputers (3)145 Intro to Data Base on Microcomputers (3)158 Beginning Internet (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS62 CH
MANAGEMENT/MARKETING 022
Advanced Certificate (A.C.) 35 Credit Hours (CH)
Required Program Core35 CH
Business (030)
111 Introduction to Business ..... 3
141 Business Math OR ..... 3
Mathematics (045) 118 or above
181 Financial Accounting4
182 Managerial Accounting ..... 4
211 Business Law OR ..... 3
212 Business Law II OR
214 Legal \& Social Environment Business
231 Marketing3
241 Introduction to Finance ..... 3
269 Principles of Management ..... 3
CIS (032)
120 Introduction to Microcomputers ..... 3
English (035)
101 Composition ..... 3
Speech (095)
101 Fundamentals of Speech Communication ..... 3
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 35 CH
MANAGEMENT/MARKETING 023
Basic Certificate (B.C.) 18 Credit Hours (CH)
Required Program Core ..... 6 CH
Business (030)
111 Introduction to Business ..... 3
141 Business Math OR ..... 3
Mathematics (045) 118 or above
Select three additional courses from the Business discipline:Business (030)
231 Marketing (3)
236 Advertising (3)
237 Selling (3)
258 Small Business (3)
269 Principles of Management (3)
Select one of the following Communications courses:3 CH

English (035)
101 Composition (3)
Speech (095)
101 Fundamentals of Speech Communication (3)
160 Business and Professional Speech (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS


## Programs of Study <br> Education and Training

## CHILD DEVELOPMENT - <br> BILINGUAL TEACHER AIDE 276 <br> Associate in Applied Science degree (A.A.S.) 61 Credit Hours (CH)

The A.A.S. in Child Development - Bilingual Teacher Aide prepares graduates to assist teachers of elementary school children in bilingual education in before or after school settings. The program is also for bilingual aides in the public school system, aides who will have contact with the bilingual classroom, dual language classroom, or English as a second language classroom.

## General Education

15 CH
Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree

## See page 51 for A.A.S. general education degree requirements.

## Required Program Core

40 CH
Child Development (090)
101 Human Growth \& Development I
102 Human Growth \& Development II
107 Health, Safety, and Nutrition
201 Observation \& Management of Child Behavior*
262 Child, Family \& Community Relations
Education (083)
260 Principles of Practice in Elementary Education
269 Practicum in Elementary Education**
Linguistics (132)
101 Language and Culture
102 Introduction to Linguistics
103 Instructional Media for Second Language Training
104 Cross Cultural/Multicultural Education
201 Issues in First \& Second Language Acquisition

## Electives

Students should meet with a college Academic Advisor for selection of elective courses.

TOTAL PROGRAM MINIMUM CREDIT HOURS

* Requires completion of clinical experience/observation hours.
**Course is held in school-age setting.


## CHILD DEVELOPMENT - <br> ELEMENTARY EDUCATION 280 <br> Associate in Applied Science Degree (A.A.S.) 61 Credit Hours (CH)

The A.A.S. in Child Development - Elementary Education offers courses in child development theory and the skills needed to assist teachers of elementary school children or for graduates to work in after-school care programs.

## General Education

Students should meet with a college Academic Advisor
for selection of specific course requirements for the 15.0 credit
hour minimum general education portion of the A.A.S. degree.
See page 51 for A.A.S. general education degree requirements.
Required Program Core 31 CH
Child Development (090)
101 Human Growth and Development I 4
102 Human Growth and Development II OR 3
149 Creative Activities for Children
107 Health, Safety, and Nutrition3

109 Language Development 3
120 Introduction to Early Childhood Education
Group Care of Children
143 Science and Math for the Young Child 3
201 Observation and Management of Child Behavior* 3
Education (083)
260 Principles of Practice in Elementary Education 3
269 Practicum in Elementary Education**

## Electives

The Child Development, Psychology and Sociology courses
listed below are recommended for elective credit:
Child Development (090)
205 Development of the Exceptional Child (3)
6 CH Psychology (087)
201 General Psychology (3)
207 Child Psychology (3)
61 CH Sociology (089)
201 Introduction to the Study of Society (3)
203 Marriage and the Family (3)

## TOTAL PROGRAM MINIMUM CREDIT HOURS

61 CH
*Requires completion of clinical experience/observation hours.
**Course is held in school-age setting.

## CHILD DEVELOPMENT ELEMENTARY EDUCATION 284 <br> Advanced Certificate (A.C.) 34 Credit Hours (CH)

Required Program Core
Child Development (090)
101 Human Growth and Development I*
102 Human Growth and Development II
107 Health, Safety, and Nutrition
109 Language Development
120 Introduction to Early Childhood Education Group Care of Children
143 Science and Math for the Young Child
201 Observation and Management of Child Behavior* Education (083)
260 Principles of Practice in Elementary Education
269 Practicum in Elementary Education**

## Elective

Students should meet with a college Academic Advisor for selection of one elective course.

TOTAL PROGRAM MINIMUM CREDIT HOURS
*Requires completion of clinical experience/observation hours. **Course is held in school age setting.

## CHILD DEVELOPMENT - <br> ILLINOIS DIRECTOR CREDENTIAL/IDC LEVEL 1300 <br> Advanced Certificate (A.C.) 41 Credit Hours (CH)

31 CH The Illinois Director Credential is an approved program by the State in which one can earn a Level I Director Credential.
4 An applicant enrolled in this program must complete the 3 scheduled classes below and demonstrate competency in 3 three additional areas. These areas include teaching 3 experience with young children, program management experience of a minimum of 1200 clock hours, and demonstrated leadership through professional contributions made to the field beyond the scope of daily management activities. The program coordinator of the Director Credential must verify the attainment of the requirements for each of 3 the five competency components before the credential can 6 be received.

3 CH Note: Applicant must complete the Associate in Applied Science degree in Child Development/Pre School Education, program/plan 278 before applying for the Illinois Director Credential.

Required Program Core
41 CH
Business (030)
258 Small Business 3
Child Development (090)
101 Human Growth and Development I 4
107 Health, Safety, and Nutrition 3
109 Language Development 3
120 Introduction to Early Childhood Education
Group Care of Children
143 Science and Math for the Young Child 3
149 Creative Activities for Children 3
201 Observation and Management of Child Behavior 3
258 Principles of Pre-School Education 4
259 Practicum in Pre-School 6
260 Administration \& Supervisor of Pre-School Centers 3
CIS (032)
120 Introduction to Computers 3
TOTAL PROGRAM MINIMUM CREDIT HOURS 41 CH

## Programs of Study <br> Education and Training

## CHILD DEVELOPMENT - INFANT TODDLER CARE 331 <br> Associate in Applied Science degree (A.A.S.) 62 Credit Hours (CH)

The program provides students with the educational theory and practices which promote optimal development of the professional skills that are extremely crucial to the development of the $21^{\text {st }}$ century child.

## General Education

15 CH
Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

## See page 51 for A.A.S. general education degree requirements

## Required Program Core

32 CH
Child Development (090)
101 Human Growth and Development I
107 Health, Safety, and Nutrition
109 Language Development
120 Introduction to Early Childhood Education Group Care of Children
142 Methods and Materials for Infant and Toddler Care
149 Creative Activities for Children
201 Observation and Management of Child Behavior
259 Practicum in Pre-School6

## Electives

The four courses listed below in the Child Development, CIS, Psychology, and Sociology disciplines are recommended for elective credit in addition to other courses recommended by a college Academic Advisor:
Child Development (090)
262 Child, Family and Community Relations (3)
CIS (032)
120 Introduction to Microcomputers (3)
Psychology (087)
207 Child Psychology (3)
Sociology (089)
203 Marriage and Family (3)

## TOTAL PROGRAM MINIMUM CREDIT HOURS <br> 62 CH

CHILD DEVELOPMENT - INFANT TODDLER CARE 332
Advanced Certificate (A.C.) 32 Credit Hours (CH)
Required Program Core
32 CH
Child Development (090)
101 Human Growth and Development I 4
107 Health, Safety, and Nutrition 3
109 Language Development 3
120 Introduction to Early Childhood Education Group Care of Children3
142 Methods and Materials for Infant and Toddler Care ..... 3
201 Observation and Management of Child Behavior ..... 3
248 Principles and Practice of Infant and Toddler Care ..... 4
259 Practicum in Pre-School ..... 6
262 Child, Family and Community Relations ..... 3

## CHILD DEVELOPMENT -PRE-SCHOOL EDUCATION 278 <br> Associate in Applied Science degree (A.A.S.) <br> 62 Credit Hours (CH)

Pre-School Education provides child development theory and skills for the student who intends to work immediately in a pre-school program as a teacher or teacher assistant in public and private preschools, child care centers, or nursery schools. It can also prepare students to work as teacher aides and activities supervisors.

## General Education

15 CH
Students should meet with a college Academic Advisor
for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education degree requirements

## Required Program Core

Child Development (090)
101 Human Growth and Development I 4
107 Health, Safety, and Nutrition 3
109 Language Development 3
120 Introduction to Early Childhood Education
Group Care of Children
143 Science and Math for the Young Child 3
149 Creative Activities for Children 3
201 Observation and Management of Child Behavior 3
258 Principles of Pre-School Education 4
259 Practicum in Pre-School 6
262 Child, Family and Community 3

## Electives

The three courses listed below in the Child Development and CIS disciplines are recommended for elective credit in addition to other courses recommended by a college Academic Advisor:

Child Development (090)
102 Human Growth and Development II (3)
205 Development of the Exceptional Child (3)
CIS (032)
120 Intro to Microcomputers (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS

# Programs of Study <br> EdUcation and Training 

## CHILD DEVELOPMENT -

 PRE-SCHOOL EDUCATION 282Advanced Certificate (A.C.) 32 Credit Hours (CH)

## Required Program Core

Child Development (090)
101 Human Growth and Development I
107 Health, Safety, and Nutrition
109 Language Development
120 Introduction to Early Childhood Education Group Care of Children
143 Science and Math for the Young Child
149 Creative Activities for Children
201 Observation and Management of Child Behavior
258 Principles of Pre-School Education
259 Practicum in Pre-School

## Elective

Additional course recommended for the child development field. Although not required, it is strongly recommended.
Child Development 090
262 Child, Family \& Community (3)

## TOTAL PROGRAM MINIMUM CREDIT HOURS

## CHILD DEVELOPMENT -

 PRE-SCHOOL EDUCATION 277Basic Certificate (B.C.) 10 Credit Hours (CH)

## Required Program Core

Child Development (090)
101 Human Growth and Development I
Program Electives
Select two Child Development courses from the following:
Child Development (090)
107 Health, Safety and Nutrition (3)
120 Introduction to Childhood Education/
Group Care of Children (3)
149 Creative Activities for Children (3)

## CHILD DEVELOPMENT - <br> PRE-SCHOOL EDUCATION INFANT/TODDLER 286 <br> Advanced Certificate (A.C.) 32 Credit Hours (CH)

32 CH The certificate program in Pre-School Education Infant/ Toddler prepares students for employment in center or home-based programs that provide day care for infants and toddlers. The study of child development theory and skills is necessary for those interested in becoming "nannies" or livein infant and child care providers.
Required Program Core ..... 29 CH
Child Development (090)
101 Human Growth and Development I* ..... 4
107 Health, Safety, and Nutrition ..... 3
109 Language Development ..... 3
120 Introduction to Early Childhood Education Group Care of Children ..... 3
142 Methods and Materials for Infant and Toddler Care ..... 3
201 Observation and Management of Child Behavior* ..... 3
248 Principles and Practice of Infant and Toddler Care ..... 4
259 Practicum in Pre-School** ..... 6

Electives
Select one Child Development course from the following:
Child Development (090)
230 Introduction to Early Intervention (3)
262 Child, Family and Community Relations (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS
*Requires completion of clinical experience/observation hours. **Course is held in school age setting.

## Programs of Study <br> Education and Training

## CHILD DEVELOPMENT - <br> SCHOOL AGE CHILD CARE 275 <br> Associate in Applied Science degree (A.A.S.) 61 Credit Hours (CH)

Graduates of the A.A.S. with a concentration in Child Development - School Age Child Care will have met the educational requirements to qualify as group workers and child care providers of school age children. The settings for which this concentration is appropriate are private child-care centers and before-and after-school programs. Graduates of the program will also qualify to be assistant teachers or education support staff in public elementary schools.

## General Education

15 CH
Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

## See page 51 for A.A.S. general education degree requirements

## Required Program Core

35 CH
Child Development (090)
101 Human Growth and Development I*
102 Human Growth and Development II
107 Health, Safety, and Nutrition
144 School Age Activity Programming
201 Observation \& Management of Child Behavior*
205 Development of the Exceptional Child
262 Child, Family and Community Relations
268 Principles and Practice of School Age Programs
269 Practicum in School Age Child Care**
Social Service (091)
212 Introduction to Group Process
Electives
Students should meet with a college Academic Advisor for selection of elective courses.

## TOTAL PROGRAM MINIMUM CREDIT HOURS

*Requires completion of clinical experience/observation hours.
**Course is held in school age setting.

## CHILD DEVELOPMENT - SPECIAL EDUCATION 281 <br> Associate in Applied Science Degree (A.A.S.) 63 Credit Hours (CH)

Study of child development theory and the skills needed to assist teachers of the exceptional child, the emotionally, physically or mentally handicapped; can lead to employment as a teacher aide in public and private special education schools and in redisdential child care facilities and hospitals.

## General Education <br> Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

15 CH

See page 51 for A.A.S. general education degree requirements.

## Required Program Core

Child Development (090)
101 Human Growth and Development I ..... 4
102 Human Growth and Development II ..... 3
107 Health, Safety, and Nutrition ..... 3
120 Introduction to Early Childhood Education Group Care of Children ..... 3
141 Activity Programming ..... 2
201 Observation and Management of Child Behavior ..... 3
205 Development of the Exceptional Child ..... 3
225 Supervision of the Exceptional Child ..... 3
229 Practicum in Residential Child Care ..... 6
Education (083)
260 Principles of Practice in Elementary Education ..... 3
Electives ..... 15 CHStudents should meet with a college Academic Advisorfor selection of elective courses.
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 63 CH
CHILD DEVELOPMENT - SPECIAL EDUCATION 285
Advanced Certificate (A.C.) 33 Credit Hours (CH)
Required Program Core33 CH
Child Development (090)
101 Human Growth and Development I ..... 4
102 Human Growth and Development II ..... 3
107 Health, Safety, and Nutrition ..... 3
120 Introduction to Early Childhood Education Group Care of Children ..... 3
141 Activity Programming ..... 2
201 Observation and Management of Child Behavior ..... 3
205 Development of the Exceptional Child ..... 3
225 Supervision of the Exceptional Child ..... 3
229 Practicum in Residential Child Care ..... 6
Education (083)
260 Principles of Practice in Elementary Education ..... 3
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 33 CH

# Programs of Study <br> Education and Training 

TEACHING, LEADERSHIP AND

## SUPPORT PROFESSIONALS 055

Associate in Applied Science (A.A.S.) 63 Credit Hours (CH)
This A.A.S. program prepares students for entry-level positions in educational institutions. The emphasis is on observation and practice. It is also recommended for educational support professionals who may want to upgrade their skills or credentials.

## General Education

English (035)
101 Composition
Humanities (041)
123 Introduction to Arts and Ideas
Mathematics (045)
121 Math for Elementary Teachers
Social Science (088)
101 General Course I Science
Physical/Life Sciences
Students should meet with a college Academic Advisor for selection of remaining course requirements for the general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education degree requirements.

## Required Program Core

Education (083)
101 An Introduction to Education
102 Using Technology in the Classroom
205 Introduction to Teacher Assistant
208 School Leadership and Support Professionals
260 Principles of Practice in Elementary Education
299 Special Topics in Education
Psychology (087)
201 General Psychology
210 Diverse Cultures in Global Age
Additional Required Program Core
Select two courses from the following:
Education (083)
209 Observation/Seminar/Practicum in Teaching,Leadership/ Support Professionals in Elementary Education (6)
210 Observation/Seminar/Practicum in Teaching,Leadership/ Support Professionals in Secondary Education (6)
211 Observation/Seminar/Practicum in School Leadership/Support Professionals in Community Colleges (6)

## Electives

(minimum) 9 CH
Select three courses from the following:
Child Development (090)
101 Human Growth and Development I (4)
109 Language Development (3)
Education (083)
103 Students with Disabilities in School (3)
203 Education Psychology (3)
256 The American Public School (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS
63 CH

## TEACHING, LEADERSHIP AND SUPPORT PROFESSIONALS 057 <br> Advanced Certificate (A.C.) 35 Credit Hours (CH)

The advanced certificate program in Teaching, Leadership and Support Professionals is recommended for students who are interested in pursuing entry-level positions in educational institutions. It is also recommended for educational support professionals who may want to upgrade their skills or credentials. The program has as its emphasis observation and practice.
Required Program Core $\quad 23$ CH
Education (083)
101 An Introduction to Education 3
102 Using Technology in the Classroom 3
208: School Leadership and Support Professionals 4
260 Principles of Practice in Elementary Education 3
299 Special Topics in Education 4
English (035)
101 Composition 3
Psychology (087)
201 Introduction to Psychology 3
Electives $\quad 12 \mathrm{CH}$
Select two courses from the following:
Education (083)
209 Observation/Seminar/Practicum in Teaching,Leadership/ Support Professionals in Elementary Education (6)
210 Observation/Seminar/Practicum in Teaching, Leadership/Support Professionals in Secondary Education (6)
211 Observation/Seminar/Practicum in School Leadership/Support Professionals in Community Colleges (6)
TOTAL PROGRAM MINIMUM CREDIT HOURS

## BIOTECHNOLOGY 215

Associate in Applied Science degree (A.A.S.)
67 Credit Hours (CH)
Biotechnology utilizes cellular components and microorganisms for the production of products used in medicine, pharmacology, agriculture, food processing and environmental cleanup. Employment opportunities are available in laboratories, hospitals, and research and development companies.

## Program Requirements for Admission

- Completion of the Biotechnology program application.
- Graduation from an accredited high school or acceptable scores on the General Education Development (GED) test. Foreign and domestic high school education or domestic GED must be validated by official transcripts.
- Validation of previous college or biotech education by official transcripts.
- Average or above-average high school standing with one year of biology.
- Algebra, chemistry, and biology courses taken in another country must be repeated in this country.
- Acceptable scores on the American College Test (ACT).
- Acceptable scores on the standardized reading test administered by Truman College.
- Demonstrated proficiency in speaking and reading English.

Each student must achieve a minimum grade of $C$ for all courses required to complete the degree. An overall grade point average of 2.0 or better must be maintained.

It is strongly recommended that students take Chemistry 207 "Organic Chemistry II" and Biology 210 "Survey of Biotechnology" to be competitive in the Biotechnology industry. Since Biotechnology is highly diverse, it is important that students select courses specific to the industry they are seeking to be employed. They should meet with a college Academic Advisor from the Department of Biology/Biotechnology or Department Chairperson.

## General Education <br> 18 CH

Biology (023)
121 Biology I
English (035)
101 Composition 5

Math (045)
125 Introductory Statistics"

Students should meet with a college Academic Advisor for selection of remaining course requirements for the general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education degree requirements.

| Required Program Core | 43 CH |
| :--- | ---: |
| Biology (023) | 5 |
| 122 Biology II | 4 |
| 209 Biochemistry | 3 |
| 250 Intro to Molecular Biology | 4 |
| 251 Molecular Biology I | 4 |
| 252 Molecular Biology II | 5 |
| Chemistry (073) | 6 |
| 201 General Chemistry I | 4 |
| 205 Organic Chemistry I | 4 |
| Mathematics (045) | 4 |
| 140 College Algebra | 6 CH |
| Microbiology (024) |  |
| 233 General Microbiology |  |
| 234 Applied Microbiology |  |
| Electives |  |
| Select a minimum of two courses from the following |  |
| Biology, Chemistry and CIS disciplines or other |  |
| recommended courses by a college Academic Advisor. |  |
| Biology (023) |  |
| 107 Nutrition-Consumer Education (3) |  |
| 210 Survey of Biotechnology (3) |  |
| Chemistry (073) |  |
| 204 Quantitative Analysis (5) |  |
| 207 Organic Chemistry II (6) |  |
| 217 Intro to Instrumental Analysis (4) |  |
| CIS (032) |  |
| 116 Intro to Operating Systems (3) |  |

## Programs of Study

## DENTAL HYGIENE 222 <br> Associate in Applied Science degree (A.A.S.) 72 Credit Hours (CH)

NOTE: This program will be revised effective summer 2011 at which time an addendum to the current catalog 2011-13 will be published. New students should consult with a college Academic Advisor or Department Chairperson.

The A.A.S. in Dental Hygiene provides specialized educational, clinical, and therapeutic services in preventive oral healthcare preparing graduates for national, regional, and state board examinations required for licensure as registered dental hygienists. Major responsibilities include examination of the teeth and oral structures; the removal of plaque, calculus and stain from teeth; exposing and developing x-rays; and educating patients in home oral healthcare techniques. The A.A.S. can lead to employment opportunities in private dental offices, managed care facilities, dental product sales, public health clinics, or the insurance industry.
A unique partnership with the University of Illinois at Chicago (UIC) College of Dentistry gives students the opportunity to complete prerequisite and general education courses at Kennedy-King College followed by the core professional courses and clinical training at the UIC's College of Dentistry.

Special admission requirements for the Dental Hygiene Program include a college grade point average of 2.0 or better (on a 4.0 scale), satisfactory scores on standardized college placement and vocational aptitude tests, evidence of high school graduation or GED certificate, proof of current certification in CPR Basic Life Support at Healthcare Provider Level, letters of recommendation, autobiographical statement, and completion of 20 hours of college level prerequisites with a grade of " $C$ " or better in:
Biology (023)
Biology 121-General Biology I (4)
Biology 226- Human Structure and Function I (4)
Biology 227- Human Structure and Function II (4)
Chemistry (073)
Chemistry 121- Basic Chemistry I (4)
Sociology (089)
Sociology 201- Introduction to the Study of Society (3)
Selected candidates must complete a comprehensive physical and dental examination, including appropriate immunizations prior to the beginning of classes. Students are responsible for the purchase of all required books, instruments, uniforms, gloves, and malpractice insurance. Program curriculum, admission requirements, and cost estimates are subject to change. Please contact the department office for current guidelines.
The Dental Hygiene Program is accredited by the Commission on Dental Accreditation of the American Dental Association. The Commission is a specialized accrediting body recognized by the Council for Higher Education Accreditation and by the United States Department of Education.

The Dental Hygiene core professional courses listed below must be taken in sequence and passed with a grade of " $C$ " or better before the student may advance in the program.

## First Year

First Semester - Summer Credit Hours
Dental Hygiene (100)
110 Oral Microbiology and Immunology 2
112 Concepts of Preventive Therapy I 2
Mathematics (045)
118 General Education Math 4
Semester total 8 CH
Second Semester - Fall
Dental Hygine (100)
121 Principles of Dental Hygiene I (lecture) 2
123 Principles of Dental Hygiene I (lab) 2
125 Nutrition and Biochemistry 2
131 Oral Structures and Function 3
133 Head and Neck Anatomy 2
135 Concepts of Preventive Therapy II 1
English (035)
101Composition
Semester total 15 CH
Third Semester - Spring
Dental Hygiene (100)
122 Principles of Dental Hygiene II (lecture) 2
124 Principles of Dental Hygiene II (lab) 3
126 Dental Radiology
128 General and Oral Pathology 2
130 Dental Materials 3
Speech (095)
101 Fundamentals of Speech Communication 3

Semester total

## Second Year

Fourth Semester - Summer Credit Hours
Dental Hygiene (100)
200 Summer Clinic
3
202 Critique of Dental Literature 1
Psychology (087)
201 General Psychology 3

## Semester total

Fifth Semester - Fall Credit Hours
Dental Hygiene (100)
233 Expanded Functions 2
235 Community Dental Health I 2
241 Dental Pharmacology 2
243 Periodontics 2
251 Clinical Dental Hygiene I 5
Semester total
Sixth Semester - Spring
Credit Hours
Dental Hygiene (100)
250 Oral Diagnosis
252 Clinical Dental Hygiene II 5
254 Dental Specialties 1
256 Community Dental Health II 1
258 Ethics and Jurisprudence 2
260 Senior Seminar 2
Semester total
TOTAL PROGRAM MINIMUM CREDIT HOURS

## EMERGENCY MEDICAL TECHNICIAN - BASIC ENTRY LEVEL \& PARAMEDIC ADVANCED LEVEL

(See below: Emergency Medical Technician-Basic (Basic Certificate) 252; EMT II Paramedic 265 (Advanced Certificate); and EMT II Paramedic 263 (A.A.S.)
A career in Emergency Medical Services (EMS) provides the student with the knowledge and training to recognize symptoms of illness and injury and to provide emergency medical care. Professionals in the field of EMS are prepared to make quick decisions based on classroom, laboratory, and field experience. Emergency medical technicians and paramedics perform their jobs with and for people. Students must have a sincere desire to work with people and must be empathetic to the needs of the sick and injured. Regional EMS systems utilize two levels of practice, EMT-B and Paramedic, which are licensed by the State of Illinois.

## Entry level training: EMT-B

Emergency Medical Technician-Basic (EMT-B) training provides basic knowledge and skills that can be used at home, school, or the work place, whenever a medical emergency is present. Successful completion of the certificate program comprising one course enables the student to sit for the state licensing exam. Students must attain license as an EMT-B before pursuing the paramedic level. EMT-B licensing is required by most municipalities for employment as fire fighter and other public service career.

## Advanced level training: Paramedic

Once the EMT license is attained, a student can advance to the paramedic program. This program offers a higher level of skill and knowledge to render advanced life saving techniques in an emergency situation. Successful completion of the program enables the student to sit for the state licensing exam. Paramedic licensing is required for all advanced life support ambulance service.

## EMERGENCY MEDICAL TECHNICIAN-BASIC 252 <br> Basic Certificate (B.C.) 6 Credit Hours (CH)

## Program Requirements for Admission

- Official high school transcript or GED certificate showing date of graduation or completion.
- 18 years of age or older.
- Must be eligible to enroll in or have passed English 101 or successful completion of EMT 100 - Emergency Medical Technician-First Responder Training course.
- Must complete interview with program director.


## Required Program Core <br> Credit Hours

Emergency Medical Technician (120)
101 Emergency Medical Technician-Basic
6
TOTAL PROGRAM MINIMUM CREDIT HOURS $\quad \mathbf{6} \mathbf{~ C H}$

## EMT II PARAMEDIC 265

## Advanced Certificate (A.C.) 34 Credit Hours (CH)

The Advanced Certificate in the Paramedic Program is awarded to the student that successfully completes the Paramedic Core Curriculum. Courses run for three consecutive semesters starting each fall. Applications are accepted the previous spring. Successful completion of the core curriculum provides eligibility to take the licensing examination offered by the Illinois Department of Public Health or the National Registry of EMTs.

## Program Requirements for Admission

Courses runs for three consecutive semesters starting each fall semester, Applications are accepted the previous spring. To be considered for admission the applicant must:

- Be a high school graduate or GED Certificate holder.
- Be currently licensed by the State of Illinois as an EMT-B.

Note: Students enrolled in a current spring semester EMT class who have not completed the state exam are not eligible to apply unless from a MXC EMT class with acceptable course grade.

- Earn a passing grade in Biology 116, equivalent A\&P course or higher (such as Human Structure and Function/BIO 226 and 227).
- Have a current CPR card.
- Ambulance experience as an EMT-B (approximately 500 hours) by start of program is strongly recommended.
- Achieve acceptable scores on admissions examinations. Submit, by deadline, completed program application with transcripts, to the Paramedic Program Director at Malcolm X College.


## PROGRAMS OF STUDY <br> Health Science

## Applicant Interviews

Interviews with the EMS Region XI Admissions Committee are granted to those applicants who have met or exceeded admission criteria.

## Selection Factors

Selection of candidates for this program is highly competitive and conducted by interview process. Evaluation of applicant ability is based on academic history, EMS work experience, references, and communication skills. Emphasis is placed on academic history as demonstrated by GPA, and motivation as demonstrated by experience in the EMS field.

## Required Program Core

First Semester
Emergency Medical Technician (120)
221 Essentials of Paramedic Medicine I
222 Paramedic Medicine Practicum I

## Semester total

Second Semester
223 Essentials of Paramedic Medicine II
224 Paramedic Medicine Practicum II
Credit Hours

Semester total
Third Semester
227 Field Internship
Semester total
Credit Hours

Credit Hours

TOTAL PROGRAM MINIMUM CREDIT HOURS
34 CH

## EMT II PARAMEDIC 263

Associate in Applied Science degree (A.A.S.) 61 Credit Hours (CH)

In addition to the Advanced Certificate, Malcolm X College offers the only paramedic program in the City of Chicago and is one of the few colleges in Illinois to offer an Associate in Applied Science Degree (A.A.S.) in this professional specialty. Successful completion of the Paramedic Core Curriculum, in addition to complementary general education courses, enables the paramedic student to attain an A.A.S. degree. Completion of the degree can broaden the student's marketability as well as provide a strong basis for continued professional learning.
This program is presented as a collaborative effort by Malcolm X College, the Chicago Fire Department, and the Chicago Resource Hospitals: Advocate Illinois Masonic Medical Center, Northwestern Memorial Hospital, and University of Chicago Hospitals. The Paramedic Program is approved and accredited by the Illinois Department of Public Health, Division of Emergency Medical Services and Highway.
General Education

English (035)
English 101 3
Biology (023)
Biology 120
3

Sociology (089)
Sociology 201
Psychology (087)
Psychology 201
Communications elective 3
Social Science electives 5
Humanities/Fine Arts electives 3
Physical/Life Sciences electives 4
See page 51 for A.A.S. general education degree requirements.
Required Program Core
34 CH
Emergency Medical Technician (120)
221 Essentials of Paramedic Medicine I
222 Paramedic Medicine Practicum I 5
223 Essentials of Paramedic Medicine II 9
224 Paramedic Medicine Practicum II 5
227 Field Internship 6
For further information about attaining an Associate in Applied Science degree in Emergency Medical Services, contact the EMS Program Office at (312) 850-7124.

MEDICAL ASSISTANT (BASIC) 359
Advanced Certificate (A.C.) 33 Credit Hours (CH)
This certificate program prepares students to become multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures in a doctor's office, clinic, hospital, or other medical setting.

| Required Program Core | 33 CH |
| :--- | ---: |
| Biology (023) | 3 |
| 120 Terminology for Medical Careers |  |
| Health (001) | 3 |
| 102 Medical Law \& Ethics | 3 |
| 103 Medical Assisting Clinical Procedures I | 3 |
| 104 Medical Assisting Clinical Procedures II | 2 |
| 105 Medical Careers Professional Development | 3 |
| 106 Administrative Procedures | 4 |
| 107 Pharmacology | 3 |
| 108 Fundamentals of Ambulatory Billing \& Coding | 6 |
| 109 Medical Assisting Externship Practicum | 3 |
| 251 First Aid |  |

## TOTAL PROGRAM MINIMUM CREDIT HOURS

## MEDICAL ASSISTING 386

Basic Certificate (B.C.) 26 Credit Hours (CH)
The Medical Assisting program is the classroom and hands on training program encompassing the administrative, clinical and laboratory principles of the medical office. The program is recommended for those contemplating a career in health care professions.

## Required Program Core <br> 26 CH

Biology (023)
115 Human Biology
120 Terminology for Medical Careers
132 Clinical Lab Procedures for Medical Offices
Business (030)
184 Principles of Medical Office Administration
CIS (032)
Introduction to Microcomputer
Phlebotomy (113)
109 Phlebotomy Practicum \& Seminary I
TOTAL PROGRAM MINIMUM CREDIT HOURS

MORTUARY SCIENCE 257
Associate in Applied Science degree (A.A.S.) 62 Credit Hours (CH)
Students enrolled in the Mortuary Science program will obtain work-based experiences in how to embalm and restore human remains, arrange and conduct religious and humanistic funerals, memorial services, manage funeral home operations, sell funeral merchandise, assist grieving families, and assist members of the medical profession in areas related to human remains. Funeral home establishments may employ students prior to the state of Illinois required internship. The program is in compliance with the standards, guidelines, and curriculum of the American Board of Funeral Service Education (ABFSE), the Conference of Funeral Service Examining Boards (ICFSE), the City Colleges of Chicago (CCC), and the Illinois Department of Financial and Professional Regulations (IDFPR).
Goals of the Program: To provide a relevant, current and comprehensive ABFSE curriculum, provide comprehensive public safety and technical experiences through laboratory education, and to establish mastery levels at which students can successfully complete all program requirements and the International Conference of Funeral Service Exam (ICFSE), provide students with the necessary academic preparation to become licensed by the IDFPR, and to establish and maintain program policies that supports a well rounded, globally professional for empowerment.

The Program recognizes the importance of funeral service education personnel as: members of a human services profession, members of the community in which they serve, participants in the relationship between bereaved families, and those engaged in the funeral service profession; and as professionals, knowledgeable of and compliant with federal, state, provincial, and local regulatory guidelines; as well as professionals sensitive to the responsibilities for public health, and welfare in caring for human remains.
The program qualifies graduates to register with the IDFPR for intern to state licensure upon successful completion of the program and a registered score on the ICFSE (see Capstone course requirements on last page of Mortuary Science program narrative).

## Programs of Study

## health Science

## Program Admission Requirements

- Be at least 18 years of age.
- Official high school transcripts or General Education Certificate (GED) showing date of graduation or completion date (as applicable) for first-time college enrollment.
- Official college transcripts from all institutions attended.
- Completion of 18 semester credit hours in BIO 120 or Health Science 102, BIO 121, English 101, Speech 101, and Mathematics 118 for fall/August Day enrollment or, completion of 34 semester credit hours in BIO 120 or Health Science 102, BIO 121, English 101, Mathematics 118, BIO 226, BIO 227, BIO 130 and 131, Entrepreneur 201 and CIS 120 for spring/May evening enrollment.
- Grade Point Average must be at least "C" (GPA 2.5) for fall day enrollment or,
- Grade Point Average must be at least "C" (GPA 3.0) for spring evening enrollment.
- Grade C or better in English 101 and Mathematics 098 or a 10 th grade reading and math level on the placement examination.
- Completion of all Prerequisite Electives \& General Education courses specified in day or evening curriculum.
- Submission of completed application to the Mortuary Science Program.
- Submission of three Letters of Recommendation.
- Submission of an Essay.
- \$40.00 non-refundable application fee with application submission.
- Interview with Program Director and Advisory Board Members.
- Biology 226 and 227 general education courses for transferability must have been completed within five years of admission. If more than five years, these courses must be audited or successfully tested out through program assessment. All courses strictly in Mortuary Science must be taken in the program. Transfer students must submit a full application packet and meet with Program Director.
- Transfer status is not a guaranteed acceptance. MXC college advisors perform transcript evaluations at the request of the student. Transcript evaluation forms are available at the Office of Admissions and Student Records on campus.
- Application deadline: April 7 of every year.
- Electronic notification of acceptance by program: April.
- Electronic applicant response to acceptance offer: April.
- Conviction of a felony: Contact the IDFPR (217)782-8556 to inquire if license would be awarded by state to practice in this profession.


## Acceptance Policy

- Candidates offered admission may not defer admission to a subsequent year. Applicants who decline admission must reapply.
- TheMortuary ScienceProgram Information and Application is available on the web:
www.malcolmx.ccc.edu/aas/mortuaryscience.
- The annual passage rate of first-time takers on the National Board Examination for the most recent threeyear period for this institution and all ABFSE accredited funeral service education programs is posted on the ABFSE web site www.abfse.org.
- The Mortuary Science Program at Malcolm X College is accredited by the American Board of Funeral Service Education (ABFSE) 3414 Ashland Avenue, Suite G, St. Joseph, Missouri 64506 (816) 233-3747. www.abfse.org Executive Director: Dr. Michael Smith.
(Public notification of change in Executive Director, spring 2011.)
To graduate with an Associate in Applied Science degree in Mortuary Science and be eligible to apply to the IDFPR, the student must:
- Complete the required prerequisite courses.
- Complete the 62 credit hours of the Mortuary Science curriculum.
- Earn at least a 2.0 grade point average, a "C" or higher in Mortuary Science courses.
- Pass the Practice National Board Exam (PNBE) and Comprehensive Exit Examinations in capstone course.
- Register and complete the Arts and Sciences National Board Exam (NBE) within 45 days of the City Colleges of Chicago graduation date.
- Meet all graduation requirements of the City Colleges of Chicago and Mortuary Science program.

Application Deadline is April 7 of every year. New students are accepted into the Mortuary Science program during the spring of each year, with the program starting during the spring term in May and during the fall term in August. Courses are offered Monday-Thursday during the fall enrollment in the day from 8 a.m.-3:20 p.m.; during the spring enrollment in the evening from 6-8:50 p.m.; and during the summer enrollment in the evening from 4-9:50 p.m.
Uponacceptance intotheMortuaryScience program, students must provide documentation of current health insurance, immunizations and recent medical examination. The student must exemplify professionalism, good communication and language skills and an overall comprehension of public health and sanitation. Some of the required courses have their own prerequisite course. Please see each course descriptions in the college catalog.

## Prerequisite Courses

## Mortuary Science Day program:

These requirements must be completed before applicant applies to the Mortuary Science Day Program. Each course must be taken by all students to establish eligibility for admission and fulfillment of the Associate in Applied Science degree requirements.
Biology (023)
120Terminology for Medical Careers or
Health Science (124)
102 Prof. Medical \& Health Care Practices
Biology (023)
121 Biology I
English (035)
101 Composition
Mathematics (045)
118 General Education Mathematics
Speech (095)
101 Fundamentals of Speech Communications

## Mortuary Science (128) ABFSE Core-Courses and General Education Courses 18-Month DAY Curriculum begins in fall/August

First Semester (Aug.-Dec.) Credit Hours
Mortuary Science (128)
102 Microbiology for Embalmers
103 Chemistry for Embalmers
104 Pathology for Embalmers
111 History of Funeral Service
Biology (023)
226** Human Structure and Function I

## Semester total

Second Semester (Jan.-May) 16 CH

Mortuary Science (128)
108 Accounting in Funeral Service
Credit Hours

109 Sociology for Funeral Service
207 Restorative Art
213 Embalming Theory I
Biology (023)
$227^{* *}$ Human Structure and Function II

## Semester total

Third Semester (Aug.-Dec.)
Mortuary Science (128)
203 Funeral Directing
204 Mortuary and Business Law 3
215 Restorative Art Laboratory 2
216 Embalming Theory II 3
Biology (023)
130 \& 131** Human Cadaver Anatomy I and II 2
Entrepreneurship (143)
201*** Intro to Entrepreneurship 3
Semester total

Fourth Semester (Jan.-May)

Credit Hours

Mortuary Science (128)

210 Advanced Mortuary Science Practice/Ethics 2
211 Psychology of Funeral Service 3
209 Funeral Management/Merchandise 3
214 Embalming Laboratory 3
CIS (032)
120*** Introduction to Microcomputers 3

## Accelerated Curriculum-14-Month EVENING Curriculum

This program of study is available to any student who has successfully completed all of the prerequisite electives and general education courses. This program is designed to meet the needs of those applicants who have completed the minimum requirement of 34 college credit hours within the required prerequisite electives and general education courses.

Acceptance notice must be issued from the Director of the Mortuary Science Program prior to enrollment into the 14-Month Evening Program. Courses are offered in the evenings only. Students in the accelerated program can only attend courses in the evening. Students are not allowed to attend day course offerings and vice-versa. Application deadline is April 7 of every year.
Courses are offered Monday-Thursday from 4-9:50 p.m. during first and fourth semesters, and from 6-8:50 p.m. during the second and third semesters. The accelerated curriculum begins in May and ends in July of the following year. All students are encouraged to have access to a computer and Internet services. Several course offerings will require basic computer skills due to Blackboard course materials and assessments. Several computer labs are located on campus for student convenience. Prerequisite Electives and General Education Courses.

## PROGRAMS OF STUDY <br> Health Science

These requirements must be completed before applicant applies to the Mortuary Science Evening Program. Each course must be taken by all students to establish eligibility for admission and fulfillment of the Associate in Applied Science degree requirements.

Health Science (124)
102 Professional Medical and Healthcare Practices OR
Biology (023)
120 Terminology for Medical Careers
121 Biology I
226 Human Structure \& Function I
227 Human Structure \& Function II
130 Human Cadaver Anatomy I
131 Human Cadaver Anatomy II
English (035)
101 Composition
Speech (095)
101 Fundamental of Speech Communication
Mathematics (045)
118 General Education Math
Entrepreneurship (143)
201 Intro to Entrepreneurship
CIS (032)
120 Intro to Microcomputers
** General Education courses included in program credit hours
***ABFSE Business Management (Entrepreneurship) course required and included in program credit hours

## Mortuary Science Core Courses <br> 14-Month Evening Curriculum begins in spring/May

First Semester (May-Aug.) Credit Hours
Mortuary Science (128)
109 Sociology for Funeral Service ..... 3
111 History of Funeral Service ..... 3
104 Pathology for Embalmers ..... 3
211 Psychology of Funeral Service ..... 3
Semester total12 CH
Second Semester (Aug.-Dec.) Credit Hours
Mortuary Science (128)
102 Microbiology for Embalmers ..... 3
103 Chemistry for Embalmers ..... 3
213 Embalming Theory I ..... 3
207 Restorative Art ..... 3
Semester total12 CH
Third Semester (Jan.-May) Credit Hours
Mortuary Science (128)
203 Funeral Directing ..... 3
204 Mortuary and Business Law ..... 3
214 Embalming Laboratory ..... 3
216 Embalming Theory II ..... 3
Semester total12 CH

Fourth Semester (May-Aug.)
Credit Hours
Mortuary Science (128)
108 Accounting in Funeral Service 3
209 Funeral Management and Merchandise 3
215 Restorative Art Laboratory 2
210 Advanced Mortuary Science Practice/Ethics 2

Total Core Course hours 46 CH
TOTAL PROGRAM MINIMUM CREDIT HOURS 62 CH
**General Education courses included in program credit hours.
***ABFSE Business Management (Entrepreneurship) course
required and included in program credit hours

## Day/Evening Program

One (1) Capstone Course: To registerfor the capstone course, students must have successfully completed semesters one-three and are concurrently enrolled in the fourth semester. Beginning January 1, 2004 all Funeral Service Education Students must take the National Board Examination (NBE) as a requirement for completion of the program. The NBE is the final exam in the capstone course. Students must self-register and pay the NBE fee within 45-days of the City Colleges of Chicago graduation date in order to take the final exam. Students must first obtain authorization from the Director before self-registration. Once authorized, failure to register and pay the NBE fee within the 45-days will prevent the student from successfully completing the course and declaring completion and graduation status from the program and college.Mortuary Science (128)
108 Accounting in Funeral Service33

Semester total $\quad 10 \mathrm{CH}$
Semester total

Total General Education/ABFSE hours $\quad 16 \mathrm{CH}$ ..... 16 CH
Total General Education/ABFSE hours46 CH

NEPHROLOGY/RENAL TECHNOLOGY 247
Associate in Applied Science degree (A.A.S.) 65 Credit Hours (CH)
Nephrology (Renal Dialysis) is a medical discipline specializing in the treatment of patients with end stage renal disease and/or dysfunction. Nephrology technologists are members of a health care team dedicated to helping patients on renal dialysis. Technologists operate technical and sophisticated medical equipment which removes excess fluids and toxins from the circulatory system. They monitor, adjust settings, and record patient data during dialysis. Technologists must become familiar with associated medical support equipment, the application of such, and their safe handling and cleaning. With the high prevalence of diabetes and hypertension, the number of people developing End Stage Renal Disease is increasing. The field of Nephrology is expanding and advancing, which requires Renal Dialysis Technicians and Technologists to have more advance skills.

## Enrollment Procedures

A program application is required for entry. Students are admitted in the spring semester with the program starting in the fall semester.

## Program Admission Requirements

- Must be at least 18 years of age.
- Submit completed application to the Office of Nephrology/ Renal Technology program along with official high school transcripts or GED certificate showing date of graduation and two letters of recommendation from former teachers, employers, counselors or minister.
- Provide official transcripts for all college courses taken by applicant.
- Submit letter to the Nephrology/Renal Technology office stating why the applicant has chosen the field of Nephrology/ Renal Technology.
- Achieve a minimum grade "C" or better in English 101.

For more information on the Nephrology/Renal Technology program please call (312) 850-7370 or 7371.
First YearFall SemesterBiology (023)
120 Terminology for Medical CareersCredit Hours
Renal Technology/Nephrology (018)
101 Intro to Health Care Field \& Nephrology ..... 3
102 Basic Hemodialysis Principles I ..... 3
103 Basic Hemodialysis Principles II ..... 3
104 Hemodialysis Procedures I ..... 3
Semester total15 CH
Spring Semester Credit Hours
Chemistry (073)
121 Basic Chemistry I ..... 4
Renal Technology/Nephrology (018)
105 Heparinization / BAC in Dialysis ..... 3
106 Diagnostic Tests \& Procs in Neprology ..... 3
107 Hemodialysis Procedures II ..... 3
108 Clinical Experience I ..... 3Semester total16 CH
Summer SemesterCredit Hours
Renal Technology/Nephrology (018)Semester total3 CH
Second Year
Fall Semester ..... Credit Hours
Psychology (087)
201 General Psychology ..... 3
Renal Technology/Nephrology (018)
201 Renal Physiology and Renal Diseases ..... 3
202 Renal Disease and Pathophysiology ..... 3
203 Clinical Experience III ..... 3
204 Clinical Experience IV ..... 3
Semester total15 CH
Spring Semester ..... Credit Hours
Mathematics (045)
118 General Education Mathematics ..... 4
Renal Technology/Nephrology (108)
205 Uremic Syndrome ..... 3
206 Advanced Technology in Nephrology ..... 3
207 Clinical Experience V ..... 3
208 Clinical Experience VI ..... 3
Semester total ..... 16 CH
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 65 CH

## Programs of Study <br> Health Science

## NURSING 239 <br> Associate in Applied Science (A.A.S.) 69 Credit Hours (CH)

The Nursing Program prepares students through the study of nursing theory and patient care techniques to take the licensure examination for Registered Professional Nurses (RN). Both classroom instruction and clinical experiences in Chicago and surrounding suburban area hospitals and primary care facilities are provided. The curriculum is designed to lead the student to employment as a Registered Professional Nurse in hospitals, clinics, nursing homes, physicians' offices, schools, public health, government, and military, or industry.

## Admission Requirements for the Nursing Program:

Admission is competitive. The District has one admission policy for all the City Colleges of Chicago RN Programs. Admission to the Program requires admission to the college, approval by the Nursing Admissions' Committee and the completion of the following:

## Prerequisite Requirements for Nursing Program:

English 101;
Biology 121;
Earn a " $B$ " or higher in Chemistry 121 or take a higher level chemistry course passing with a "C" or higher;
MATH 118; Math 125; or equivalent with a "C" or higher;
Cumulative college GPA Of 2.5 or higher;
Documented reading score of 90 or above on COMPASS Placement Exam; 90 or above on ATI TEAS for PN applicants which is equivalent to 90 on the COMPASS.
High school transcripts, GED, and other applicable transcripts; Chemistry and Biological Science courses must be completed within five years of admission to the nursing program. These courses can be audited after five years. If audited, the student must meet the requirements of the course.

## Prerequisites:

English (035)
101 Composition
3
Biology (023)
121 Biology I
5
Chemistry (075)
121 Basic Chemistry I or higher level Chemistry
Mathematics (045)
118 General Education Math OR
125 Intro Statistics or college level Math
Total Credit Hours for Prerequisite Courses

## Required Program Core

Nursing (063)

## Semester I

101 Fundamentals of Nursing I7
Semester 2
102 Fundamentals of Nursing II ..... 7
Semester 3
210 Nursing Process and Alterations in Homeostasis I ..... 6
211 Nursing Process and Alterations in Homeostasis II ..... 6
Semester 4
212 Nursing Process and Alterations in Homeostasis III ..... 6
213 Nursing Process and Alterations in Homeostasis IV ..... 6
203 Nursing in Perspective ..... 3
Total Credit Hours for Core Courses ..... 41 CH
Other General Education/Degree Requirements:(must be taken before enrolling in third semester of nursing)
Biology (023)
226 Human Structure and Function I ..... 4
227 Human Structure and Function II ..... 4
Microbiology (024)
233 General Microbiology ..... 4
Other General Education Total Credit Hours ..... 12 CH
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 69 CH

Other Requirements:
Meet health requirements upon admission to the program; subject to a criminal background check and random drug screening; successful completion of degree requirements; meet all degree requirements for A.A.S. in Nursing.

Graduation from the Nursing Program does not guarantee R.N. licensure. The graduate must apply for R.N. licensure and successfully pass the National Council for Licensing Examination (NCLEX-RN). Students applying for licensure will be asked to provide information regarding any prior felony convictions, denial of any professional license, and dishonorable discharge from the armed forces.

Licensed Practical Nurses (LPNs) may advance place into Nursing 210 or Nursing 211 (third semester courses) after meeting all prerequisites and passing Nursing 140 (RN Transition/Bridge course).

# Programs of Study <br> Health Science 

## NURSING (PRACTICAL) 240

Advanced Certificate (A.C.) 40 Credit Hours (CH)
The Practical Nursing Program is a one-year (three semesters) certificate program that provides students with a basic knowledge of nursing theory and practice. Graduates of the practical nursing program meet the educational requirements for the NCLEX-PN exam to become a licensed practical nurse (LPN). Graduates of the program may transfer their credits to an associate or bachelor degree nursing program. If more applicants apply than the program can accept, the most qualified applicants will be accepted.

Requirements for consideration into the program:

- High School Diploma or GED
- Program Application
- Official Transcripts
- Proof of eligibility for college level math by coursework or placement test
- Pre-Admissions Test


## General Education

14 CH
English (035)
101 Composition I
Biology (023)
226 Human Structure and Functions I
227 Human Structure and Functions II
Psychology (087)
201 General Psychology

## Required Program Core

First Semester
Nursing (063)
150 Nursing Fundamentals I
151 Nursing Fundamentals II
152 Nursing Perspectives
Second Semester
153 Nursing through the Life Span I
154 Nursing through the Life Span II

## Third Semester

155 Nursing through the Life Span III

## TOTAL PROGRAM MINIMUM CREDIT HOURS

40 CH
Note: Certified Nurse Assistants actively employed may be given credit for basic nursing skills-those with a current CNA certificate through the State of Illinois (156 Nursing Fundamentals I Lecture 2 credit hours) Students should consult with the Nursing Department Director.

NURSING (RN COMPLETION) 381
Associate in Applied Science degree (A.A.S.) 70 Credit Hours (CH)

## Program Description:

The RN Completion Program will provide students who have completed a Practical Nursing Program with the nursing coursework that will result in an Associate in Applied Science degree in Nursing. This is a ladder program designed to provide an opportunity for Practical Nursing (PN) graduates to continue their education by building on their previous education rather than repeating previously learned material. The A.A.S. in Nursing program prepares students to become registered nurses through licensure from the Illinois Department of Financial and Professional Regulation (IDFPR), and meets critical local, state, and national needs for nursing professionals. Successful completion of the program will allow the student to apply to sit for the NCLEXRN licensure examination.

## Admission Requirements for the RN Completion Nursing Program:

Admission is competitive. The District has one admission policy for all the City Colleges of Chicago RN Programs. Students seeking admission must successfully complete the entire program of study to become a practical nurse (PN). What makes the RN Completion program unique is that students seeking admission into the program are not required to take the NCLEX-PN Licensure Examination. Admission to the RN Completion Program requires admission to the college, approval by the Nursing Admissions' Committee and the completion of the following:

## General Education

English (035)
101 Composition
102 Composition OR
Speech (095)
101 Fundamentals of Speech Communication
Math (045)
118 General Education Mathematics or above 4
Microbiology (024)
233 General Microbiology 4
Psychology (087)
201 General Psychology

## Programs of Study

Health Science

## Required Program Core

Biology (023)
226 Human Structure and Function I
227 Human Structure and Function I
121 Biology I
Chemistry (073)
121 Basic Chemistry I
Nursing (063)
210 Nursing Process and Alterations in Homeostasis I 6
211 Nursing Process and Alterations in Homeostasis II 6
212 Nursing Process and Alterations in Homeostasis III 6
213 Integration of Concepts of Complex Nursing IV
203 Nursing in Perspective
Minimum of 9 credit hours in escrow from any of the following licensure courses.

| Work Based Learning Courses | 9 CH |
| :--- | ---: |
| Nursing (063) | 4 |
| 150 Nursing Fundamentals I | 4 |
| 151 Nursing Fundamentals II | 2 |
| 152 Nursing Perspectives | 5 |
| 153 Nursing Through the Life Span I | 5 |
| 154 Nursing Through the Life Span II | 6 |
| 155 Nursing Through the Life Span III |  |
| TOTAL PROGRAM MINIMUM CREDIT HOURS | $\mathbf{7 0} \mathbf{C H}$ |

## OBSTETRICS \& GYNECOLOGIC TECHNOLOGY 221 <br> Basic Certificate (BC) 11 Credit Hours (CH)

This certificate program is designed to present the basic concepts and principles for developing skills and competencies needed in special procedures which the physician may use to assist the mother in labor and delivery. This program will offer knowledge and obligation in aseptic technique, scrubbing, gowning and gloving. The female anatomy, layers of abdomen, proper positioning, draping, patient safety, skin preparation, instrumentation, supplies, drugs, equipment, and different terminology, including different types of anesthesia used during labor and delivery.

## Program Requirements for Admission

- Consent of Program Director, English Composition 101 recommended before the Obstetrics Program courses (3 credit hours is part of program total).
- Submit an application and interview with the program director.
- Co-enrollment in Obstetrics Technology 214 and 215.
- Prerequisite for Obstetrics Technology 215 is a "C" or better in 214.


## Required Program Core

11 CH
English (035)
101 Composition
Surgical Technology (016)
214 Obstetrics/Gynecologic Technology
215 Obstetrics/Gynecologic Technology
TOTAL PROGRAM MINIMUM CREDIT HOURS

## OCCUPATIONAL THERAPY ASSISTANT (OTA) 259 Associate in Applied Science degree (A.A.S.) <br> 75 Credit Hours (CH)

The study of occupational therapy as a skilled healthcare service that uses occupation to promote meaningful living. Occupational therapy assistants, under the guidance of occupational therapists, adapt activities, tasks, and the environment in order to enable people of all ages and backgrounds to fulfill their chosen occupations and life roles. Career options can include employment in hospitals, clinics, schools, specialized community care settings, and wellness programs.
The program's mission is to prepare competent and effective occupational therapy practitioners who value occupation as both a means and as an end to quality living for self and others through a sound educational experience that includes preparation in:

- The occupational therapy process
- The impact of culture
- Use of self as an agent of change
- Ethical professional practice
- Teaching and learning processes
- Collaborating as a healthcare professional
- Working in a variety of practice environments
- Oral and written communication skills

Students can make formal application to the program when all pre-admission coursework is completed, or when preadmission coursework completion will occur before the beginning of Semester I of the program. A minimum grade of "C" is required in each pre-admission and general education course. If more candidates apply than the program can accept, the best qualified will be admitted.
The Occupational Therapy Assistant Program is accredited by the Accreditation Council for Occupational Therapy Education. (Address: AOTA Accreditation Dept., 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 208241220; Phone: (301) 652-2682). Program participants are eligible for graduation from the OTA Program with an A.A.S. degree upon successful completion of all required academic courses and fieldwork. Graduates of the program are eligible to sit for the National Certification Exam for Occupational Therapy Assistants administered by the National Board for Certification in Occupational Therapy, Inc. (NBCOT). After successful completion of this exam, an individual becomes a Certified Occupational Therapy Assistant. Determination of exam eligibility for applicants who have a felony related charge or conviction requires individualized review by NBCOT, Inc. Most states require licensure in order to practice. Illinois license issuance is based upon the results of the NBCOT Certification exam.

## PROGRAMS OF STUDY <br> Health Science

Required courses before formal admission to the OTAProgram. (These hours count towards the OTA degree.)Occupational Therapy Assistant (122)106 Foundations of Human OccupationEnglish (035)101 CompositionPsychology (087)
201 General Psychology207 Child Psychology (may substitute Child Dev. 101)CIS (032)
120 Introduction to Microcomputers

## See page 51 for A.A.S. general education degree requirements.

Additional required courses (may be taken before or during the first year of the OTA program): Biology (023)
226 Human Structure and Function I*

## Sociology (089)

201 Introduction to the Study of Society
Select one course from the following:
Child Development (090)
10 Human Growth and Development II (3)
Psychology (087)
222 Adult Development and Aging (3)
Social Service (091)
102 Introduction to Gerontology (3)
OTA (122) sequence requirements

## First semester

107 Occupations of Childhood
108 Practice Skills for the OTA I
Second Semester
109 Occupations of Adolescence and Early Adulthood

## 110 Practice Skills for the OTA II

## Third Semester

209 Occupations of Middle Adulthood
210 Practice Skills for the OTA III
211 Special Topics for the OTA I
Fourth Semester
212 Occupations of Later Adulthood
213 Practice Skills for the OTA IV
214 Special Topics for the OTA II

## Summer Term ${ }^{* * *}$

215 Fieldwork Level 2A/Professional Seminar 6
2/3**

216 Fieldwork Level 2B/Professional Seminar

* Biology 226 has a prerequisite of Biology 121.
** Students must complete a minimum of 6 credit hours OTA 211and OTA 214.
*** All academic coursework must be completed and an exit exam passed in order for students to proceed to the fieldwork component of the program.

OPHTHALMIC TECHNOLOGY 382
Associate in Applied Science degree (A.A.S) 65 Credit Hours (CH)
The Ophthalmic Technology program is a technical degree that educates and trains students to become certified ophthalmic technicians. The program will be managed by a licensed ophthalmologist who will mentor the student technicians in direct and indirect patient care. The program will emphasize the unique duties required of an ophthalmic technician to provide quality vision care services to patients. These include ophthalmic terminology, patient pre-testing skills, optical skills, contactlens patienteducation/information, ocular anatomy and physiology, visual training, practice management, ancillary testing, instrument maintenance, and assisting the doctor with minor ophthalmic surgery. Clinical experience with doctors and patients is an important part of the curriculum.

## General Education

16 CH
English (035)
101 Composition I 3
3 Speech (095)
101 Fundamentals of Speech Communication 3
Biology (023)
116 Anatomy and Physiology 4
120 Terminology for Medical Careers 3
Arts/Humanities and Social/Behavioral Sciences 3
Students should meet with a college Academic Advisor for selection of remaining course requirements for the general education portion of the A.A.S. degree.

5 See page 51 for A.A.S. general education degree requirements.
2 Required Program Core
49 CH
Ophthalmic Technology (167)
112 Anatomy and Physiology of the Eye 4
114 Ophthalmic Optics 3
120 Ophthalmic Pre-Testing 2
5125 Retinoscopy and Refractometry 2
2130 Ophthalmic Dispensing 3
2/3** 141 Ophthalmic Office Procedures 4
150 Ocular Pharmacology
160 First Aid, Emergency Care, CPR 3
221 Ophthalmic Ancillary Testing 2
223 Advanced Ophthalmic Assisting 3
230 Clinical Practicum I 3
235 Contact Lenses 3
6240 Integrated Science for Ophthalmic Technicians 3
6242 Clinical Practicum II 3
243 Advanced Ophthalmic Procedures 3
244 Advanced Ophthalmic Technique 3
260 Introduction to Surgical Technology 1
290 Electronic Medical Record 2
TOTAL PROGRAM MINIMUM CREDIT HOURS

## Programs of Study <br> health Science

## PHARMACY TECHNOLOGY 254

Advanced Certificate (A.C.) 33 Credit Hours (CH)
This program prepares students for employment as Pharmacy Technicians. The program is accredited by the American Society of Health-System Pharmacists. Graduates receive an advanced certificate upon completion.
Pharmacy technicians assist and support licensed pharmacists in providing health care and medications to patients. They may perform many of the same duties as pharmacists, but all technicians' work must be checked by a pharmacist before medication is dispensed. While Pharmacy Technicians can work everywhere pharmacists work, some state laws may limit the duties they perform.

## Enrollment Procedures

A special application is required for entry into the program. Upon acceptance into the program, students must provide proof of current health insurance and recent medical examination

## Program Admission Requirements

- No conviction of felony crime.
- Submit a completed application to the Pharmacy Technology program before June 1 for fall semester admission only.
- Provide official high school transcripts or GED certificate showing date of graduation as well as official transcripts of all college courses taken by applicant.
- Provide official results of the College placement examination indicating college level scores in Mathematics, English, and reading comprehension.
- Submit three letters of recommendation either from former teachers, employers, counselors or ministers to the Pharmacy Technology office, Room 3524.
- Personal interview with members of the program's admissions committee.
For more information on the Pharmacy Technology program please call (312) 850-7385.
First Semester

Credit Hours

Pharmacy Technology (062)
102 Basic Science for Allied Health 4
103 Intro to Pharmacy Technology 4
104 Pharmaceutical Calculations 3
201 Introduction to Pharmacy Law 1
204 Clinical Practicum I

## Semester Total

16 CH
Second Semester
Credit Hours
101 Pharmacology for Allied Health 4
113 Prescription Processing 2
121 Pharmacy Communication 3
202 Pharmacy Operations 4
205 Clinical Practicum II 4
Semester total

## TOTAL PROGRAM MINIMUM CREDIT HOURS

33 CH

## PHLEBOTOMY 219

Basic Certificate (B.C.) 11 Credit Hours (CH)
This is a two-semester certificate program which leads to certification through the National Phlebotomy Association (NPA), the American Society of Clinical Pathologists (ASCP), and the American Society of Phlebotomy Technicians (ASPT).

The phlebotomist is an entry level health care worker. The position is responsible for drawing both venous and arterial blood specimens from patients and sending blood to the laboratory. In some cases, physician approval is required. Phlebotomists serve as the direct link between the patient and the laboratory. The laboratory technologist relies on the integrity and accuracy of the phlebotomist in procuring the proper specimens. Accurate diagnosis of a patient's condition can depend on quality work. Phlebotomists can further their education and become laboratory technicians or technologists.

## Program Admission Requirements

- Submit a complete application to the Phlebotomy program.
- Provide an official high school transcript or GED certificate showing date of graduation or completion.
- Take the college entrance examination (COMPASS).
- Schedule a personal interview with program personnel.

Required Program Core $\quad 11 \mathrm{CH}$
Phlebotomy (113)
109 Phlebotomy Practicum \& Seminar I 5
209 Phlebotomy Practicum \& Seminar II 6

## TOTAL PROGRAM MINIMUM CREDIT HOURS <br> 11 CH

Applications for the program are taken March through August and the program begins each fall. For more information on the Phlebotomy program, call (312) 850-7383 or 7354..

## PHYSICIAN ASSISTANT (PA) 262

Associate in Applied Science (A.A.S.) 78 Credit Hours (CH)
Physician Assistants (PA) are "academically and clinically prepared to provide healthcare services with the direction and responsible supervision of a physician." Graduate PAs perform many of the medical tasks traditionally performed by physicians. Physician Assistants, when certified and licensed, are qualified to practice medicine as part of a team with their supervisory physician. PAs perform histories and physical examinations, diagnose and treat illnesses, order and interpret laboratory tests, counsel patients on preventive health, suture wounds, set fractures, and assist in surgery. Physician assistants can write prescriptions in 50 states, the District of Columbia and Guam. The scope of practice and delegation of medical tasks is determined by the supervising physician in compliance with state statute and regulation as well as institutional policy. Each physician/PA team strives to establish a process for supervision and ongoing performance evaluation, which ensures high quality patient care, satisfaction, and continued professional growth.

A PA must have excellent verbal and writing skills and be able to communicate in a culturally appropriate manner. In addition, a PA is required to have detailed knowledge of basic sciences, behavioral sciences and a foundation in general higher education.

Licensure and Certification - All states require a physician assistant to pass the Physician Assistant National Certification Exam (PANCE) as a requirement for state licensure. To maintain certification, a PA must complete 100 hours of continuing medical education every two years and take a recertification examination every six years.

The John H. Stroger Jr. Hospital of Cook County/Malcolm X College PA program was the first physician assistant program established in Illinois and remains the sole publicly-sponsored program in northern Illinois. It was first accredited in 1988 and is presently accredited by the Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA). The SHCC/MXC PA program is a full-time 25 -month program with resources located at Malcolm X College, John H. Stroger Jr. Hospital of Cook County and several other medical facilities. Graduates receive an Associate of Applied Science degree and Certificate of Completion.

Master's Degree Option - Students entering the Program with a Bachelor's degree have the option to enroll in a Master of Medical Science degree during their clinical year with an affiliated university.

For more information contact the Physician Assistant Program office at 312-850-7255

## Program Admission Requirements

To be considered for admission into the Physician Assistant program, an applicant must have the following.

- GPA of 3.0 in completion of all prerequisite courses, and a GPA of 3.0 in completion of all science prerequisite courses with a minimum grade of "C" in all prerequisite science course credit.
- Must have a high school diploma or GED.
- Should have a minimum of 1000 hours in non-volunteer direct patient contact healthcare experience.
- Must have all college prerequisites for an Associate's degree including 6 credit hours in English, 8 credit hours in Natural Sciences, and 3 credit hours in Psychology.
- Foreign transcripts must be evaluated by City Colleges of Chicago.


## Prerequisite General Education Courses Credit Hours

English 101 Composition 3
Speech/ Public Speaking 3
General Biology 4
General or Organic Chemistry 4
Psychology 3
Introductory Statistics (Math 125) 4
Computer Information Systems comparable 3 to CIS 120

Total Prerequisite General Education Courses

## Prerequisite Science Courses

Organic Chemistry I or Biochemistry 4
Organic Chemistry II, Genetics or medical science 4
Course at 200-level or above
(e.g. Pathophysiology or Immunology)

Microbiology 233
4
Anatomy / Physiology I (Biology 226) 4
or Anatomy with lab
Anatomy / Physiology II
or Physiology (Biology 227) with lab
Medical Terminology or Competency Exam and Science Prerequisites

## Programs of Study

Health Science

## Other Admission Requirements

To be eligible for consideration for admission, the applicant must have the minimum academic prerequisites and healthcare experience.

- All science courses must have been completed within five years of admission. Exceptions may be considered on a case-by-case basis for candidates with documented academic excellence and appropriate clinical experience.
- Healthcare Experience: applicants should have a minimum of 1000 hours in non-volunteer direct patient contact healthcare experience. The PA Admissions Committee, using a standardized procedure, considers the nature and quality of healthcare experience in evaluating an applicant's preparation. Direct patient care and other healthcareexperienceintheUnitedStates'healthcaresystem is ranked higher than experience in other areas. Once an applicant reports more than 10 years' experience, the Admission Committee does not assign the applicant additional recognition.
- Science Course Five-Year Rule: Science courses must be completed within the last five years or be retaken. Applicants may choose to take higher level courses or competency examinations, e.g., ACT or CLEP, for credit. A waiver of the five-year rule may be granted at the discretion of the PA Program staff and faculty on a very limited case-by-case basis for the candidate with documented academic excellence and appropriate clinical experience. Waiver requests using program forms and including the appropriate documentation should be received by the final date of application. Please obtain a waiver request form, if needed, from the Physician Assistant Program office. An additional fee may be required for waiver review.
- Medical Terminology: Noncredit courses in Medical Terminology and those from non-college diploma programs (for example, many hospital-based health technician programs) are not equivalent to a three credit course in Medical Terminology at an accredited college or university. Applicants may arrange an examination for college credit in Medical Terminology by contacting the City Colleges of Chicago Office of Testing (312) 553-3294. There is a fee of $\$ 75.00$ and preregistration is required. Examinations are scheduled at 10:00 a.m. Tuesday, Wednesday and Thursday mornings at 226 West Jackson in Chicago. Please allow at least 6 weeks to arrange for testing and final scores to be computed. You must request your scores be sent directly to the PA program. Candidates who fail the examination may not repeat it until six (6) months have passed. An application form may be printed from the website at www.ccc.edu.
- Applicant Interviews: Interviews are granted only to those applicants who have met or exceeded the Admissions Committee'scriteria.Ifaninterviewisrequested, participation bytheapplicantisrequiredtobeconsideredforfinal selection.
- Selection Factors: Evaluation of applicants is based on academic history, references, healthcare experience, personal statements/short essays, personal interviews, and a preadmission exam. Priority is given to Illinois residents and to those with a documented commitment to primary care and an underserved community practice.

Admission to the SHCC/MXC PA Program is extremely competitive. Completion of prerequisites and length of healthcare experience does not guarantee acceptance into the program.

## APPLICATION DEADLINE AND FEE - All applications are

 online through Central Application Service for Physician Assistants (CASPA) at https://portal.caspaonline.org. Application fees are determined by CASPA. The deadline for matriculation is March 1 of each year. An additional fee may be required for review of a waiver request.
## Notification of Admission to the Program:

Acceptance to the program is offered in May of each year.

## Applicant Response to Acceptance Offer:

Mid-May; candidates offered admission may not defer. There is no waiting list for subsequent years; therefore those who are not accepted must reapply.

## Other Costs:

In addition to tuition and fees, PA students are required to bear additional estimated costs: medical equipment and supplies for two years (estimated) \$1,300; books and classroom supplies for two years (estimated) $\$ 2,770$.

## Health Insurance:

Physician assistant students are required to maintain comprehensive health insurance coverage because of the risk for accidental exposure to infectious agents and to other hazards associated with the healthcare environment.

Physician assistant students will incur additional travel costs for off-site clinical training experiences in the Chicago metropolitan area.

## Financial Aid:

Eligibility and amounts will vary.

## Policies Affecting Accepted/Admitted Physician Assistant Students:

The program is a full-time course of studying with no provision for part-time or evening study. Due to the intensity of the physician assistant program and the necessary time commitment for classroom instruction, clinical training experiences, and study, students are strongly discouraged from working. Therefore, physician assistant students must be able to maintain sufficient flexibility to respond to schedule changes, unexpected patient care demands, and the educational objectives of the program.

# Programs of Study <br> Health Science 

## Advanced Placement:

The SHCC/MXC PA Program does not offer advanced placement in core PA courses regardless of a student's previous course work or experience in another healthcare/ medical field.

Health Evaluation, Physical Examination and Immunity: Students are required to submitdocumentation oftheir medical histories, physical examination and proof of immunity in the forms of laboratory test results, immunization documents, and/or letters from their physicians before receiving a hospital ID or badge. Immunization documentation and laboratory tests must be updated as required by clinical training sites. The Hepatitis B immunization series is required for students who are not immune.

## Academic Performance and Attendance:

Students in the SHCC/MXC PA Program must earn a grade of " $C$ " or better in all PA courses and course enhancements in order to remain in the program. Grading includes measures of professionalism and participation in program classes and activities. Attendance in all scheduled classes, activities, clinical rotation, physical diagnosis, and skills practice sessions is required. Scheduled classes/activities may occur all days of the week (including weekends), during day, evening and night hours.

## Malpractice Insurance:

The City Colleges of Chicago provides enrolled physician assistant students with malpractice insurance coverage.

## Licensure Issues:

Please be advised that the State of Illinois and other jurisdictions and credentialing bodies determine the criteria for professional licensure, certification, registration, or employment. Physician assistants must meet the same high standards required of physicians, nurses, and other health professionals. Applicants with histories of impairments such as alcoholism, drug and substance abuse, certain mental illnesses or other disabilities may be denied licensure by healthcare organizations. Applicants with felony and other convictions also may be denied licensure by these same organizations.

## Conduct:

Students are required to follow the rules of conduct policies and procedures established by Malcolm X College and the John H. Stroger, Jr. Hospital of Cook County, other affiliated settings, and the physician assistant program.

## Changes:

Physician assistant program admission requirements, curriculum, courses, affiliations, and expenses are subject to change without notice.
Physician Assistant (PA) Year 1
Summer Session
Credit Hours
Physician Assistant (129)
110 Gross Anatomy for PA’s ..... 3
111 Professional Development for PA’s ..... 1
112 Pathophysiology I for the PA ..... 2
Semester Total6 CH
Fall Semester
Credit Hours
Physician Assistant (129)
101 Applied Clinical Skills I ..... 4
102 Medical Sciences I ..... 4
103 History \& Physical Assessment I ..... 3
107 Medical Pharmacology I ..... 2
113 Pathophysiology II for the PA ..... 2
Semester total15 CH
Credit Hours
Spring SemesterPhysician Assistant (129)
105 Medical Science II4
106 History \& Physical Assessment II ..... 3
114 Medical Pharmacology II ..... 2
215 Nutritional Concepts ..... 3
Semester Total ..... 12 CH
Spring Subterm V (May-June) ..... Credit Hours
Physician Assistant (129)
104 Applied Clinical Skills II ..... 2
109 Medical Science III ..... 3
214 Independent Study ..... 3
Semester total ..... 8
Total First Year ..... 41 CH
Physician Assistant (PA) Year 2
Summer, Fall, Spring and Mini Summer Terms Credit Hours
Physician Assistant (129)
201 Internal Medicine ..... 3
202 Emergency Medicine ..... 3
203 General Surgery ..... 3
204 Trauma Surgery ..... 3
205 Pediatrics ..... 3
206 Obstetrics/Gynecology ..... 3
207 Family Practice ..... 3
208 Psychiatry/Mental Health ..... 3
209 Geriatrics ..... 3
210 Orthopedics ..... 3
211 Elective Clinical Rotations ..... 3
213 Seminar Special Topics in Healthcare ..... 4
Total Second Year ..... 37 CH
TOTAL PROGRAM MINIMUM CREDIT HOURS

## Programs of Study <br> \section*{Health Science}

## RADIOGRAPHY 246

Associate in Applied Science Degree (A.A.S.) 75 Credit Hours (CH)

The study of the theory, technical skills, patient care, and techniques necessary to use radiation in the diagnosis of disease can lead to employment as an X-ray technologist or radiographer in private and public hospitals, clinics, and laboratories. The Associate in Applied Science degree in Radiography provides the necessary professional skills, progressive maturity, and the intellectual, social, and emotional values necessary for a graduate to be a trustworthy member of a healthcare team.

The Radiography Associate Degree Program is offered at Malcolm X College and Wilbur Wright College. Malcolm X College's program begins in the summer and Wilbur Wright College's program begins in the fall.

Upon completion of the program of study, graduates become eligible to take the national certification exam offered by the American Registry of Radiologic Technologists (ARRT). In addition, graduates may apply for a license from the Illinois Emergency Management Agency/Division of Nuclear Safety.

## Admission Requirements

Admission is competitive. In order to be considered for Admission to the Radiography Associate Degree Program, a student must:

- Be at least 18 year of age.
- Have at least a 2.5 GPA.
- Provide a copy of a GED certificate if applicable.
- Provide a copy of college transcripts. Please send a copy to the college Admissions Office and a copy to the Radiography Office, or you may request a copy directly from the Registrar's office.
- Complete the following prerequisite courses with a grade of "C" or better:

Mathematics 118 or higher Biology 120 or Health Sciences 102

Note: Additional criteria for admission may be required. Please see your Academic Advisor on your campus to discuss all admissions requirements for the Associate in Applied Science Radiography degree program.

## Application Period:

Malcolm X College's admission applications are accepted February 1 through April 1 of each year for admittance in the program the summer of the same year.
Wilbur Wright College's admission applications are accepted through December 1st of each year for admittance in the program the following fall.
General Education ..... 17 CHBiology (023)226 Human Structure and Function I*4
227 Human Structure and Function II* ..... 4
CIS (032)
120 Introduction to Microcomputers ..... 3
English (035)
101 Composition3
Psychology (087)
201 General Psychology3
*Prerequisite: Biology 114 or Biology 115 or Biology 121,or Consent of Department Chairperson.
See page 51 for A.A.S. general education degree requirements.
Required Program Core58 CH
Radiography (021)
101 Intro to the Radiation Sciences ..... 2
102 Attitudes in Patient Care ..... 2
105 Imaging Physics ..... 3
115 Basic Principles of Image Production ..... 3
124 Introduction to Patient Care ..... 2
128 Image Evaluation ..... 1131 Radiographic Procedures I
2140 Introduction to Clinical Education141 Radiography Clinical Education I200 Pathology
4202 Radiology Management3205 Applied Radiographic Techniques3
206 Imaging ..... 2
208 Radiobiology ..... 3
232 Radiographic Procedures II ..... 4
233 Radiographic Procedures III ..... 4
234 Special Radiographic Procedures ..... 2
242 Radiography Clinical Education II ..... 4
243 Radiography Clinical Education III ..... 4
244 Radiography Clinical Education IV ..... 5
TOTAL PROGRAM MINIMUM CREDIT HOURS

RENAL DIALYSIS TECHNOLOGY 248
Advanced Certificate (A.C.) 36 Credit Hours (CH)
Prerequisite: English 101 Composition

## First Year

First Semester
Credit Hours
Biology (023)
121 Biology I
Renal Technology/Nephrology (018)
101 Intro to Health Care Field \& Nephrology
102 Basic Hemodialysis Principles I
103 Basic Hemodialysis Principles II
104 Hemodialysis Procedures I
Semester Total
Second Semester
Credit Hours
Chemistry 121
Renal Technology/Nephrology (018)
105 Heparinization / BAC in Dialysis
106 Diagnostic Tests \& Procs in Neprology
107 Hemodialysis Procedures II
108 Clinical Experience I
Semester Total
Summer Semester
Renal Technology/Nephrology (018)
109 Clinical Experience II
Semester Total
TOTAL PROGRAM MINIMUM CREDIT HOURS
Note: Also see A.A.S. degree program "Nephrology/Renal Technology 247"

RESPIRATORY CARE 234
Associate in Applied Science degree (A.A.S.)
71 Credit Hours (CH)
The A.A.S. in Respiratory Care will offer the study of theory and techniques instrumental in diagnosis, treatment, management, and preventive care of patients with cardiopulmonary problems. It will prepare the students to become a well rounded professional and competent advanced respiratory therapist. The graduate will be eligible to take the National Board for Respiratory Care entrylevel respiratory care practitioner examination to become a "Certified Respiratory Therapist" and the advanced level respiratory care practitioner examination to become a "Registered Respiratory Therapist."

Successful completion of the program can lead to employment as a respiratory therapist in hospitals, clinics or home settings or branch off into research, sales, education or other career opportunities.

## Admission Requirement

Admission is competitive. In order to be considered for Admission to the A.A.S. in Respiratory Care, a student must:

- Have at least a GPA of 2.50.
- Have a personal interview with the College program personnel.
- Have their official transcripts reviewed.
- Earn a "C" or higher in: Chemistry (073) 121 Math (045) 118 or higher English (035) 101 or higher Biology (023) 116 or 226 \& 227

| General Education | 16 CH |
| :---: | :---: |
| English (035) |  |
| 101 Composition * | 3 |
| Math (045) |  |
| 118 or higher (Except Math 140)* | 4 |
| Physics (077) |  |
| 131 Mechanics and Power | 3 |
| Humanities/Fine Arts** |  |
| (any Humanities \& Fine Arts course, | 3 |
| i.e. African-American Studies 101; |  |
| Literature 121, 150) |  |
| Social Science | 3 |
| (any Social Science course) |  |
| * Courses must be taken before admission to this program. |  |
| ** See page 51 for A.A.S. general education |  |

General Education
English (035)
101 Composition *
118 or higher (Except Math 140)*4
hysics (077)
Humanities/Fine Arts**
(any Humanities \& Fine Arts course,
i.e. African-American Studies 101;

Literature 121, 150)
Social Science
** See page 51 for A.A.S. general education degree requirements.

## PROGRAMS OF STUDY

Required Program Core
First YearFall IRespiratory Therapy (061)114 Basic Respiratory Care115 Cardiopulmonary/Renal Anatomy \& Physiology116 Patient Assessment117 Respiratory Pharmacology118 Respiratory Microbiology
119 Respiratory Care Laboratory I
Spring I
Respiratory Therapy (061)
127 Clinical Practice I
137 Advanced Pathology \& Clinical Application
139 Respiratory Care Laboratory II
141 Ventilatory Mechanics I
Summer
Respiratory Therapy (061)
129 Clinical Practice II
146 Ventilatory Mechanics II
Second Year
Fall II
Respiratory Therapy (061)
200 Respiratory Care Laboratory III
222 Clinical Practice III
225 Age Specific Care
227 Critical Care Services
Spring II
Respiratory Therapy (061)
224 Clinical Practice IV
230 Advanced Cardiopulmonary Monitoring
250 Cardiopulmonary Rehab Home Care
260 Advanced Specialty Topics
TOTAL PROGRAM MINIMUM CREDIT HOURS

## STERILE PROCESSING CLINICAL 269

Basic Certificate (B.C.) 11 Credit Hours (CH)
This Basic Certificate program presents the basic concepts and principles for developing skills and competencies required for infection prevention and control in the sterile processing department in a health care facility. This program will offer basic knowledge related to instrumentation connected with surgical procedures. The students will be involved in processes such as cleaning, disinfecting, decontamination, sterilization, standard precautions, and universal precautions. The student will gain basic knowledge concerning various types of central service equipment such as ultrasonic cleaning, washer sterilizers, cart washers, autoclaves, steris, sterrad and ethylene oxide (ETO) machines.
Note: Graduates are eligible to write the International Association of Healthcare Central Service Material Management Examination (IAHCSMM).

## Program Requirements for Admission

- Consent of Program Director.
- Submit an application and interview with the Program Director/Program Personnel.
- Co-enroll in Sterile Processing 216 and 217.
- Prerequisite for Sterile Processing 217 is a "C" or better in 216.
- English 101 Composition recommended before the Surgical Technology courses. (3 credit hours is part of program total)
Required Program Core ..... 11 CH

English (035)

101Composition

Surgical Technology (016)

216 Sterile Processsing Technology

TOTAL PROGRAM MINIMUM CREDIT HOURS 11 CH

## SURGICAL TECHNOLOGY 267 <br> Associate in Applied Science degree (A.A.S.) 61 Credit Hours (CH)

Surgical technologists (formerly called operating room technicians) perform many different responsibilities in the operating room. They act as the scrub person, as the circulator, and as the first assistant on the surgical team. Surgical technologists' responsibilities involve preparing the operating room and instruments, equipment, and supplies that will be needed; positioning and preparing the patient for surgery; and passing instruments, sponges, and sutures to the surgeon. Surgical technologists are the surgical team's experts in aseptic technique, being constantly vigilant for any break in the technique that could endanger the sterile field. Surgical technologists belong to a separate nonnursing profession and are highly skilled, having completed the necessary specialized education and training focused on working in the operating room. The preferred entry-level education for the surgical technologist is the associate degree.

## Program Prerequisites

Must be met through credit, waiver or exemption
English (035)
101 Composition
Health Science (124)
102 Professional Medical OR
Biology (023)
120 Terminology for Medical Careers
121 Biology I
226 Human Structure and Function I

## Admission requirements

- Submit a complete application to the Surgical Technology program.
- Submit three letters of recommendation.
- Provide official transcripts of all college courses taken by applicant.
- Conduct a personal interview with program personnel.
- Submit application by April 15 of each year to the Surgical Technology Department, Room 3511.
- Complete all of the program prerequisites.


## First Year

First Semester Credit Hours
Biology (023)
227 Human \& Structure Function II 4
Business (030)
Business Communications 3
Surgical Technology (016)
111 Intro to Surgical Technology 3
112 Preparation for Surgery 4
113 Special Patient Care 3
Semester Total 17 CH
Second Semester Credit Hours
Surgical Technology (016)
114 Surgical Interventions I 4
115 Surgical Interventions II 4
116 Surgical Interventions III 4
Semester Total
12 CH
Summer Term
Credit Hours
Social Science (088)
101 OR 102 General Course I OR II 3
Surgical Technology (016)
117 Surgical Pharmacology 2
200 Application of Aseptic Technique 3
3 Semester Total 8 CH
Second Year
Third Semester
Credit Hours
Sociology (089)
201 Intro to Sociology 3
Speech (095)
101 Fundamentals of Speech Communication 3
Surgical Technology (016)
211 Surgical Intervention IV 2
212 Clinical Practicum I 5
Semester Total 13 CH
Fourth Semester Credit Hours
Psychology (087)
201 General Psychology 3
Surgical Technology (016)
213 Clinical Practicum II 8
Semester Total 11 CH
TOTAL PROGRAM MINIMUM CREDIT HOURS 61 CH

## BAKING AND PASTRY ARTS 365 <br> Associate in Applied Science Degree (A.A.S.) 62 Credit Hours (CH)

The A.A.S. degree in Baking and Pastry Arts is a sequential learning program taught over four semesters. All semesters include lecture, discussion, demonstration and hands-on production that allow students to practice the techniques of baking and pastry production in a commercial bakeshop environment. This program includes production for restaurant and bakeshop sales, offering the student realworld experience in the field.

## General Education

Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education degree requirements.
Required Program Core
330BKPS Baking \& Pastry
765 Introduction to Baking
766 Baking Safety \& Sanitation
767 Baking Techniques
768 Pastry Techniques
769 Cookies \& Tarts
770 Basic \& Classical Cakes
771 Special Occasion Cakes
772 Individual Pastries
773 Confectionary Arts
774 Hearth Breads \& Rolls
775 Specialty Breads
776 Advanced Baking Principles
777 Chocolate \& Confections
778 Contemporary Desserts
TOTAL PROGRAM MINIMUM CREDIT HOURS

## BAKING AND PASTRY ARTS 366 <br> Advanced Certificate (A.C.) 38 Credit Hours (CH)

The Advanced Certificate in Baking and Pastry Arts is a sequential program taught over three semesters and includes a majority of the core courses from the parent Baking and Pastry Arts 365 A.A.S. degree program with the exception of Chocolates and Confections, Contemporary Desserts, and General Education requirements.

## Required Program Core 38 CH

330BKPS Baking \& Pastry
765 Introduction to Baking 3
766 Baking Safety \& Sanitation 3
767 Baking Techniques 3
768 Pastry Techniques 3
769 Cookies \& Tarts 3
770 Basic \& Classical Cakes 3
771 Special Occasion Cakes 3
772 Individual Pastries 3
773 Confectionary Arts 3
774 Hearth Breads \& Rolls 4
775 Specialty Breads 4
776 Advanced Baking Principles 3
TOTAL PROGRAM MINIMUM CREDIT HOURS 38 CH

## BAKING AND PASTRY ARTS 367 <br> Basic Certificate (B.C.) 15 Credit Hours (CH)

The Basic Certificate in Baking and Pastry Arts introduces the student to the commercial baking environment, covering safety and sanitation skills and station setup, proper use and care of equipment, and baking and pastry terminology. The program is designed to provide the student with the opportunity to investigate and assess Baking and Pastry Arts as a possible career.

| Required Program Core | $\mathbf{1 5} \mathbf{C H}$ |
| :--- | ---: |
| 330BKPS Baking \& Pastry | 3 |
| 765 Introduction to Baking | 3 |
| 766 Baking Safety \& Sanitation | 3 |
| 767 Baking Techniques | 3 |
| 768 Pastry Techniques | 3 |
| 769 Cookies \& Tarts | $\mathbf{3}$ |
| TOTAL PROGRAM MINIMUM CREDIT HOURS | $\mathbf{1 5} \mathbf{~ C H}$ |

## Programs of Study <br> Hospitality and CUlinary

## CAKE DECORATING AND BAKING (PROFESSIONAL) 392 (L'art Du Gâteau) Basic Certificate (B.C.) 16 Credit Hours (CH)

Students will learn from internationally-renowned master chef instructors in L'Art du Gâteau - The Professional Cake Decorating and Baking certificate program offered by Kennedy-King College's French Pastry School. This all-inclusive, 16-week, full-time certificate program is custom-designed to meet the needs of students who want to specialize in the prestigious art of cake baking and decorating. This unique hands-on program focuses on all aspects involving the creation of wedding, celebration, and specialty cakes. Personal attention from chef mentors is given every day in the kitchen, providing a comfortable, yet thorough training.

Required Program Core<br>330CUL Culinary<br>779 Safety \& Sanitation<br>780 Baking, Pastry \& Technology<br>781 Cake Baking and Construction<br>782 Cake Decorating Techniques<br>783 Cake Business Planning

TOTAL PROGRAM MINIMUM CREDIT HOURS
16 CH

## CULINARY ARTS 362 <br> Associate in Applied Science Degree (A.A.S.) 63 Credit Hours (CH)

The A.A.S. degree in Culinary Arts is a sequential learning program taught over four semesters. All semesters include lecture, discussion, demonstration and hands-on production that allow students to practice the techniques of food production in a commercial food service environment. The curriculum includes additional methods and techniques that will increase the student's repertoire of ethnic and classical menus. In addition, the coursework will include management skills, cost control, budgeting techniques, merchandising, business planning, resume writing and interviewing techniques. General Education classes must be completed to satisfy the degree requirements. Students will receive the ServSafe ${ }^{\circledR}$ Sanitation Certification and will be eligible for the City of Chicago and State of Illinois Sanitation certificates upon completion.

## General Education

15 CH
Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

## See page 51 for A.A.S. general education degree requirements.

Required Program Core ..... 48 CH
330CUL Culinary
701 Introduction to Food Service I ..... 3
703 Food Sanitation \& Food Safety I ..... 2
705 Chef's Training I-Section A ..... 4
706 Chef's Training II-Section A ..... 4
707 Food Service Technology ..... 4
708 Chef's Training I- Section B ..... 4
709 Chef's Training II- Section B ..... 4
714 Nutrition for Chefs ..... 4
721 Entrée Preparation ..... 7
723 Food Service Management ..... 5
728 Advanced Cooking ..... 7
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 63 CH
CULINARY ARTS 363
Advanced Certificate (A.C.) 41 Credit Hours (CH)

The Advanced Certificate is made up of all courses included in the parent Culinary Arts 362 A.A.S. program with the exception of the general education classes and Advanced Cooking course. Supplementing the Basic Culinary Certificate Program, this certificate program focuses on advanced techniques and offers extensive practice utilizing contemporary and classical menus. Students will receive the ServSafe® Sanitation Certification and will be eligible for the City of Chicago and State of Illinois Sanitation certificates upon completion.

| Required Program Core | $\mathbf{4 1}$ CH |
| :--- | ---: |
| 330CUL Culinary |  |
| 701 Introduction to Food Service I | 3 |
| 703 Food Sanitation \& Food Safety I | 2 |
| 705 Chef's Training I - Section A | 4 |
| 706 Chef's Training I - Section A | 4 |
| 707 Food Service Technology | 4 |
| 708 Chef's Training I - Section B | 4 |
| 709 Chef's Training II - Section B | 4 |
| 714 Nutrition for Chefs | 4 |
| 721 Entrée Preparation | 7 |
| 723 Food Service Management | 5 |
| TOTAL PROGRAM MINIMUM CREDIT HOURS | $\mathbf{4 1 ~ C H}$ |

Required Program Core3
703 Food Sanitation \& Food Safety I4
706 Chef's Training II - Section A4
709 Chef's Training II - Section B4
721 Entrée Preparation ..... 7
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 41 CH

## CULINARY ARTS 364 <br> Basic Certificate (B.C.) 13 Credit Hours (CH)

The Basic Certificate in the Culinary Arts curriculum introduces the student to the commercial kitchen environment by covering safety and sanitation procedures, basic mise en place including knife skills and station set-up, proper use and care of equipment, classical cooking terminology, standard cooking methods, stock preparation, and sauce production. This program is designed to give the student the opportunity to investigate and assess Culinary Arts as a possible career goal.

## Required Program Core

13 CH
330CUL Culinary
701 Introduction to Food Service I
703 Food Sanitation \& Food Safety
705 Chef's Training I - Section A
708 Chef's Training I - Section B

TOTAL PROGRAM MINIMUM CREDIT HOURS

## FOOD SANITATION 253

Basic Certificate (B.C.) 2 Credit Hours (CH)
The Food Service Sanitation program is a partnership between City Colleges of Chicago and the Chicago Department of Public Health. The program offers training in food service sanitation in four languages: English, Spanish, Chinese, and Korean. This program prepares personnel from food establishments for certification and re-certification by the City of Chicago and the State of Illinois and also trains and certifies food vendors participating in outdoor summer festivals.

## Required Program Core

Food Service Administration (038)
222 Food Service Sanitation

## TOTAL PROGRAM MINIMUM CREDIT HOURS

## HOSPITALITY 061 <br> Associate in Applied Science degree (A.A.S.) 63 Credit Hours (CH)

The Hospitality Program is designed to prepare students in the study of theory, technical skills, and practical techniques to qualify them both for entry-level jobs and for career development in the hotel/motel management arena of the hospitality industry. The academic curriculum is designed to develop management capabilities through presentation of basic information and concepts in an industry-centered format.
General Education
Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.15 CH
See page 51 for A.A.S. general education degree requirements.
Required Program Core ..... 48 CH
Business (030)
181 Financial Accounting ..... 4
203 Introduction to Cost Accounting ..... 3
211 Business Law I ..... 3
231 Marketing ..... 3
269 Principles of Management ..... 3
271 Human Resources Management ..... 3
CIS (032)
101 Intro to Computer Information Systems ..... 3
Cooperative Work Experience (008):
101 Cooperative Education Exploration ..... 3
105 Business Technologies CWE ..... 6
Food Service Administration (038)222 Food Service Administration2
Hospitality (003)
102 Hotel-Motel Sales Promotion ..... 3
103 Food and Beverage Supervision ..... 3
108 Intro to Meeting \& Convention Management and Planning ..... 3
202 Front Office and Room Division Management ..... 3
205 Hospitality Industry Purchasing ..... 3
TOTAL PROGRAM MINIMUM CREDIT HOURS

## PROGRAMS OF STUDY <br> hospitality and Culinary

## HOSPITALITY FRONT OFFICE 062

Advanced Certificate (A.C.) 32 Credit Hours (CH)

## Required Program Core <br> 32 CH

Business (030)
181 Financial Accounting 4
182 Managerial Accounting 4
211 Business Law I 3
269 Principles of Management 3
Cooperative Work Experience (008)
105 Business Technologies CWE
English (035)
101 Composition
Hospitality (003)
104 Intro to the Hospitality Industries
202 Front Office and Room Division Management Speech (095)
101 Fundamentals of Speech Communication

## TOTAL PROGRAM MINIMUM CREDIT HOURS

PASTRY AND BAKING (PROFESSIONAL) 746
[L'art De La Pâtisserie]
Basic Certificate (B.C.) (24 Credit Hours)
Kennedy-King College's French Pastry School offers excellent innovative and effective pastry, baking, and confectionery arts education in the L'Art de la Patisserie inclusive 24 -week certificate program. Instructed by some of the best pastry artisans in the world, students receive intensive hands-on practice, using the finest ingredients and equipment, in order to be optimally prepared to pursue a career in pastry. The basic certificate offers the rare opportunity to learn the art of pastry in an intimate setting, being personally mentored by masters. Students' skills are finely honed through hands-on practice and repeated exposure to the best pastry techniques, tools, and ingredients.

Required Program Core
24 CH

330CUL Culinary
707 Food Service Technology 4
712 Baking Theory \& Problems 5
754 Candy \& Confectionery 2
758 Plated Desserts 4
761 Chocolate \& Sugar 5
762 French Cakes \& Pastries 4
TOTAL PROGRAM MINIMUM CREDIT HOURS 24 CH


## Programs of Study

## Human Services

## ADDICTIONS STUDIES 344 <br> Associate in Applied Science degree (A.A.S.) 64 Credit Hours (CH)

The A.A.S. Degree in Addictions Studies is ideal for prospective mental health practitioners or those already working in the field who wish to receive training and credentials in Addictions Studies. Many Addictions Studies practitioners find employment in medical and non-medical detoxification centers, rehabilitation programs, community mental health centers and family service centers, halfway houses, therapeutic communities, business, or industry. Some combine counseling with such primary professions as nursing, social work, school guidance counseling, or the clergy.
The program is accredited by the Illinois Alcoholism and Other Drug Abuse Professional Certification Association (IAODAPCA).

## General Education

15 CH
Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.

## See page 51 for A.A.S. general education degree requirements.

## Required Program Core

Child Development (090)
101 Human Growth \& Development I
102 Human Growth \& Development II
Mental Health (118)
223 Introduction to Addictions Studies
224 Principles and Practices of Addictions Studies
229 Practicum in Addictions Treatment*
230 Addictions and the Family: Treatment
231 Addictions Treatment of Special Populations
Psychology (087)
201 General Psychology
213 Abnormal Psychology
Social Service (091)
101 Introduction to Social Work
109 Report Writing for Social Service Aides
201 Principles of Social Work Practice
212 Introduction to Group Process

## Electives

Psychology, Sociology, and Speech/Communication are valuable to primary studies in alcoholism and substance abuse. Meet with a college Academic Advisor for elective course selection.
ADDICTIONS STUDIES 343Advanced Certificate (A.C.) 37 Credit Hours (CH)
Required Program Core37 CH
Child Development (090)
101 Human Growth and Development I ..... 4
102 Human Growth and Development II ..... 3
Mental Health (118)
223 Introduction to Addictions Studies ..... 3
224 Principles \& Practices of Addictions Treatment ..... 3
229 Practicum in Addictions Treatment* ..... 6
230 Addictions \& the Family: Treatment ..... 3
231 Addictions Treatment of Special Populations ..... 3
Social Service (091)
101 Introduction to Social Work ..... 3
109 Report Writing for Social Service Aides ..... 3
201 Principles of Social Work Practice ..... 3
212 Introduction to Group Process ..... 3
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 37 CH

## ADDICTIONS STUDIES 345

## Basic Certificate (B.C.) 18 Credit Hours (CH)

This program provides students with the academic requirements needed in the application for the Certified Alcohol and Other Drugs Counselor (CADC) examination.
Required Program Core ..... 18 CH
Mental Health (118)
223 Introduction to Addictions Studies ..... 3
224 Principles \& Practices of Addictions Treatment ..... 3
229 Practicum in Addictions Treatment* ..... 6
230 Addictions \& the Family: Treatment ..... 3
231 Addictions Treatment of Special Populations ..... 3
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 18 CH
*This Practicum is targeted to students who have already completed socialwork and developmental psychology courses at another college, university,or are seeking additional clock hours towards certification.

# Programs of Study <br> Human Services 

## COSMETOLOGY 349

Advanced Certificate (A.C.) 36 Credit Hours (CH)
The field of Cosmetology offers challenging and rewarding opportunities and is designed to give students thorough training in the art, skill and applied science used in the treatment of hair, nails, and skin. The program meets the standards of the Illinois Department of Finance and Professional Regulation (IDFPR) in total hours, teaching staff, equipment, facilities, libraries, and course content.

Students are required to complete a specific number of hours in the Technical Center Styling Salon. Once students have completed all coursework and laboratory hours, they are ready to sit for the licensure examination through the IDFPR. Students must be licensed in order to practice Cosmetology in Illinois.
Required Program Core $\quad 36 \mathrm{CH}$
Cosmetology (163)
101 Introduction to Cosmetology/Cosmetic Art
5
102 Hair Shaping Technology
5
103 Basic Styling Technology
5
104 Hair Tinting Technology
3
105 Salon Technology I
106 Salon Technology II
201 Advanced Styling Technology
202 Summative Seminar

## TOTAL PROGRAM MINIMUM CREDIT HOURS

Note 1: Cosmetology 101, 102 and 103 are prerequisites for 104, 105, 106, 201 and 202 and must be taken in sequence or concurrently passing with a minimum of a C grade. Courses 101, 102 and 103 will be offered each new semester for incoming students.
Note 2: Graduates of the Cosmetology Program may earn an Associate in General Studies Degree (A.G.S.) upon successful completion of additional college credit hours of which a specified number must be the general education requirements necessary for the A.G.S.. Students wishing to earn an AGS should consult a college Academic Advisor for a specific number of additional credit hours needed to earn the degree.

## GERONTOLOGY SPECIALIST 340 <br> Associate in Applied Science degree (A.A.S.) 61 Credit Hours (CH)

This degree program will prepare students for the entry level position of Gerontology Specialist, a human services position that qualifies the individual for work in federal, state, and local agencies, both private and public, that provide outreach services for the elderly.
General Education ..... 19 CHBiology (023)115 Human Biology4
CIS (032)
120 Introduction to Microcomputers ..... 3
English (035)
101 Composition ..... 3
Psychology (087)
201 Introduction to Psychology ..... 3
Arts/Humanities and Social/Behavioral Sciences ..... 6
See page 51 for A.A.S. general education degree requirements.
Required Program Core ..... 36 CH
Psychology (087)
222 Adult Development and Aging ..... 3
223 Death, Dying and Bereavement ..... 3
Social Service (091)
102 Introduction to Gerontology ..... 3
103 Aging and Social Policy ..... 3
105 Physiology of Aging ..... 3
106 Aging and the Family ..... 3
107 Aging and Leisure ..... 3
202 Aging and Human Services ..... 3
203 Interpersonal Communication with Elderly ..... 3
204 Cross-Cultural Studies in Gerontology ..... 3
250 Practicum I ..... 3
251 Practicum II ..... 3
Electives ..... 6 CH
Select a minimum of two Gerontology course electives recommended by a college Academic Advisor.

## Programs of Study

## Human Services

## GERONTOLOGY AIDE 339 <br> Basic Certificate (B.C.) 12 Credit Hours (CH)

This Basic Certificate program is designed to create the credentials needed to become a Gerontology Aide, or provides extra credentialing for individuals already in a related field who wish to add Gerontology coursework to their credentials.

Note: Also, see A.A.S. Gerontology Specialist 340.

## Required Program Core

12 CH
Psychology (087)
222 Adult Development and Aging
Social Service (091)
102 Introduction to Gerontology
105 Physiology of Aging
250 Practicum I
TOTAL PROGRAM MINIMUM CREDIT HOURS
12 CH

## HIV/STI PREVENTION EDUCATION 195

Basic Certificate (B.C.) 24 Credit Hours (CH)
This Basic Certificate program will increase program participants' knowledge and skills regarding HIV/STI prevention, counselling, assessment, and case management. The objective of this program is to provide consistent up-todate training to those individuals who provide services and case management to individuals with HIV/AIDS or Sexually Transmitted Infections (STI).

| Required Program Core | $\mathbf{2 4}$ CH |
| :--- | ---: |
| Social Science (088) |  |
| 115 Introduction to Health Education and Prevention | 3 |
| 116 HIV/STI Prevention Education | 3 |
| 117 HIV/STI and Special Populations | 3 |
| 118 The ABCs of STIs | 3 |
| 119 HIV/STI and GLBT Health | 3 |
| 120 HIV/STI Outreach Skills | 3 |
| 121 Case Management/Individual Intervention | 3 |
| 201 Group Facilitation | 3 |
| TOTAL PROGRAM MINIMUM CREDIT HOURS | $\mathbf{2 4}$ CH |

Required Program Core
24 CH
Social Science (088)
116 HIV/STI Prevention Education
117 HIV/STI and Special Populations
118 The ABCs of STIs
119 HIV/STI and GLBT Health
120 HIV/STI Outreach Skills
121 Case Management/Individual Intervention

TOTAL PROGRAM MINIMUM CREDIT HOURS

HUMAN DEVELOPMENT \& FAMILY SERVICES 391
Associate in Applied Science degree (A.A.S.) 60 Credit Hours (CH)
This A.A.S. degree program is based on the individual and family perspective, an interdisciplinary field that integrates several behavioral, social, and biological concepts to understand human inter action and development. Program graduates work in social service agencies, retirement communities and other geriatric facilities, non-profits, and education centers.

## General Education <br> (minimum) $\mathbf{1 7} \mathbf{C H}$

English (035)
101 Composition I 3
Speech (095)
101 Fundamentals of Speech Communication 3
Math (045) HDFS (168)
125 Introductory Statistics 4
Psychology (087)
201 General Psychology 3
Select one from the following: 4
Biology (023)
114/115 General Education Biology/Human Biology Chemistry (073)
121 Basic Chemistry I
201 General Chemistry I
Physical Science (076)
111/112 General Course I \& II

## See page 51 for A.A.S. general education degree requirements.

## Required Program Core 37 CH

Child Development (090)
101 Human Growth and Development I 4
102 Human Growth and Development II 3
English (035)
102 Composition II 3
HDFS (168)
201 Human Development and Sexuality 3
202 Intimate Relationships 3
203 Family Development from a Cross Cultural Perspective 3
204 Family Life Education 3
205 Internship for Human Development 6
Philosophy (043)
105 Logic 3
Psychology (087)
211 Social Psychology 3
Sociology (089)
201 Introduction to the Study of Society 3

# Programs of Study <br> Human Services 

Electives
The Art, Child Development and Music disciplines listed below are recommended for elective credit.
Art (3), Music (3)
(Consult with a college Academic Advisor for selection of Art and Music courses.) OR
Child Development (090)
107 Health, Safety, and Nutrition (3)
120 Introduction to Early Education/Group Care (3)

## TOTAL PROGRAM MINIMUM CREDIT HOURS

## HUMAN RESOURCE MANAGEMENT 387 <br> Advanced Certificate (A.C.) 30 Credit Hours (CH)

The program develops basic human resource management skills which can lead to employment as a human resource assistant, recruiting specialist, labor relations specialist, compensation/benefits specialist, or training specialist.
Required Program Core ..... 18 CH
Business (030)
111 Introduction to Business ..... 3
141 Business Mathematics or higher ..... 3
214 The Legal \& Social Environment of Business ..... 3
271 Human Resources Management ..... 3278 Compensation \& Benefits Administration279 Human Resources Planning and Staffing3
Electives ..... 12 CHStudents should meet with a college Academic Advisorfor selection of elective courses.
TOTAL PROGRAM MINIMUM CREDIT HOURS30 CHNURSING HOME ADMINISTRATION 341Basic Certificate (B.C.) 12 Credit Hours (CH)

The Nursing Home Administration certificate program addresses the educational needs of managers who will work with the elderly population in health care settings. The program will prepare the student for employment in longterm care facilities, as well as to sit for the nursing home administrator licensure exam. Included are both gerontology and business coursework, based on the requirements of the nursing home administrator's job description.

## Required Program Core

Business (030)
271Human Resources Management
Social Service (091)
102 Introduction to Gerontology
252 Nursing Home Administration
253 Accounting for Long Term Care
TOTAL PROGRAM MINIMUM CREDIT HOURS

## PROPERTY MANAGEMENT/DESK CLERK 368 <br> Basic Certificate (B.C.) 12 credit Hours (CH)

This Basic Certificate program provides basic knowledge of the property management field and prepares students for entry-level positions in the area of affordable and supportive housing. Program includes computer skills training and an internship.
Required Program Core ..... 12 CH

CIS (032)
120 Introduction to Microcomputers 3
Social Service (091)
110 Introduction to Property Management 3
111 Tenant Services \& Communication 2
112 Desk Clerk Operations \& Security 3
113 Internship Property Management Clerk 1
TOTAL PROGRAM MINIMUM CREDIT HOURS

## PROPERTY MANAGEMENT/LEASING SPECIALIST 369 Basic Certificate (B.C.) 12 Credit Hours (CH)

This Basic Certificate program is a continuation of the property management field to prepare students for entry-level jobs as occupancy and leasing specialists. It includes business math courses, as well as field training in an affordable or supportive housing building.
Required Program Core
12 CH
Business (030)
141 Business Math
Social Service (091)
114 Marketing \& Leasing 3
115 Property Management Finance \& Accounting 2
116 Property Maintenance \& Risk Management 3
117 Internship Occupancy Specialist
TOTAL PROGRAM MINIMUM CREDIT HOURS
12 CH

## PSYCHIATRIC REHABILITATION 258 <br> Basic Certificate (B.C.) 14 Credit Hours (CH)

The Psychiatric Rehabilitation certificate program is comprised of course work and an internship which, when combined with two years experience in the field, entitles the graduate to work at the same level as those with bachelor's degrees. The program was developed in a cooperative effort between the University of Chicago Center for Psychiatric Rehabilitation and the Illinois Department of Mental Health.
3 Required Program Core
14 CH
Psychiatric Rehabilitation (134)
101 Survey of Psychiatric Rehabilitation 3
102 Psychiatric Rehabilitation Skills 3
103 Health Skills for Psychiatric Rehabilitation 3
104 Vocational \& Community Living Skills 3
105 Internship/Psychiatric Rehabilitation Survey/Skills 1
106 Internship/Health Skills, Vocational Comm. Living 1

## Programs of Study

## Human Services

## SOCIAL WORK-GENERALIST 313

Associate in Applied Science degree (A.A.S.)
66 Credit Hours (CH)
The A.A.S. degree in Social Work includes the study of the generalist approach to working with the individual, family, group, and community. The degree can lead to employment as an aide to a social worker in government, community, or private social service agencies.

## General Education

Students should meet with a college academic advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.
See page 51 for A.A.S. general education degree requirements.

## Required Program Core

Child Development (090)
101 Human Growth and Development I*
102 Human Growth and Development II
107 Health, Safety, and Nutrition
Mental Health (118)
223 Introduction to Addictions Studies
Social Services (091)
101 Introduction to Social Work
109 Report Writing for Social Service Aides
201 Principles of Social Work Practice
212 Introduction to Group Process
215 Social Problems \& Social Action I
228 Methodology for Social Work
229 Practicum in Social Service

## Electives

14 CH

## Recommended Areas of Supporting Coursework:

Students are urged to take elective courses in Psychology, Sociology, Child Development, Anthropology, Criminal Justice, and Addiction Studies to become familiar with various approaches to individual, group, or societal problems. In addition, Computer Information Systems 120: Introduction to Microcomputers and English 102: Composition, are strongly recommended. Meet with a college Academic Advisor for course selection.

## TOTAL PROGRAM MINIMUM CREDIT HOURS

66 CH
*Requires completion of clinical experience/observation hours.
SOCIAL WORK-GENERALIST 317
Advanced Certificate (A.C.) 37 Credit Hours (CH)
Required Program Core37 CH
Child Development (090)
101 Human Growth and Development I* ..... 4
102 Human Growth and Development II ..... 3
107 Health, Safety, and Nutrition ..... 3
Mental Health (118)
223 Introduction to Addictions Studies OR ..... 3
228 Principles of Social Work Practice
Social Services (091)
101 Introduction to Social Work ..... 3
109 Report Writing for Social Service Aides ..... 3
201 Principles of Social Work Practice ..... 3
212 Introduction to Group Process ..... 3
215 Social Problems \& Social Action I ..... 3
228 Methodology for Social Work ..... 3
229 Practicum in Social Service ..... 6
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 37 CH*Requires completion of clinical experience/observation hours.
SOCIAL WORK: YOUTH WORK 370Associate in Applied Science (A.A.S.)63 Credit Hours (CH)
The A.A.S. degree in Social Work: Youth Work can lead to employment in government, community, or private social service agencies. Enrollment in the program is open to anyone interested in working with youth during out-of-school time, e.g. after-school workers, school-age workers, grassroots youth workers, community activists, outreach workers, probation officers, prevention specialists, teen reach workers, managers and supervisors. As an option under Social Work, the academic program for the professional development worker includes basic and advanced certificates and an Associate in Applied Science degree. Where applicable, under this professional development option, college credit will be awarded for prior learning experiences up to a maximum of fifteen credit hours.

| General Education | $\mathbf{1 6} \mathbf{C H}$ |
| :--- | ---: |
| English (035) | 3 |
| 101 Composition | 3 |
| Humanities (041) | 4 |
| Mathematics (045) | 3 |
| 118 General Education Mathematics |  |
| Physical Science (076) | 3 |
| Social Science (088) |  |
| 101 General Course I Social Science |  |

Students should meet with a college Academic Advisor for selection of remaining course requirements for the general education portion of the A.A.S. degree.
See page 51 for A.A.S. general education degree requirements.
Required Program Core ..... 37 CH
Business (030)
269 Principles of Management
Child Development (090)
101 Human Growth and Development I*102 Human Growth and Development II
Mental Health (118)
223 Introduction to Addictions Studies ..... 3228 Principles of Mental Health Practices
Psychology (087)
211 Social Psychology ..... 3
Social Service (091)
109 Report Writing in Social Work ..... 3
212 Introduction to Group Process ..... 3
215 Social Problems and Social Action I ..... 3
248 Principles of Youth and Group Work ..... 3
249 Practicum in Youth Work ..... 6
Electives10 CH
Students should meet with a college academic advisor
for selection of elective courses.
TOTAL PROGRAM MINIMUM CREDIT HOURS63 CH
SOCIAL WORK: YOUTH WORK 371
Advanced Certificate (A.C.) 31 Credit Hours (CH)
Required Program Core31 CH
Child Development (090)
101 Human Growth and Development I* ..... 4
102 Human Growth and Development II ..... 3
Mental Health (118)
223 Introduction to Addictions Studies ..... 3
228 Principles of Social Work Practice ..... 3
Social Services (091)
109 Report Writing for Social Service Aides ..... 3
212 Introduction to Group Process ..... 3
215 Social Problems \& Social Action I ..... 3
248 Principles of Youth and Group Work ..... 3
249 Practicum in Youth Work ..... 6
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 31 CH
SOCIAL WORK: YOUTH WORK 372
Basic Certificate (B.C.) 15 Credit Hours (CH)
Required Program Core ..... 15 CH
Social Services (091)
109 Report Writing for Social Service Aides ..... 3
215 Social Problems \& Social Action I ..... 3
248 Principles of Youth and Group Work ..... 3
249 Practicum in Youth Work ..... 6
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 15 CH

[^3]
## COMPUTER INFORMATION SYSTEMS 011

Associate in Applied Science degree (A.A.S.) 60 Credit Hours (CH)

The study of basic business and technical principles used in programming and operating personal computers. The A.A.S. can lead to entry-level jobs as computer programmer, programmer analyst, systems analyst, operations manager, network administrator, or unit supervisor in private and public firms or organizations. Advances in technology have increased the computer's application in the factory, the office and the telecommunications industry. As computer use grows, so will the need for workers who are able to cope with change and adapt to new technologies.

## General Education

Students should meet with a college Academic Advisor for selection of specific course requirements for the 15.0 credit hour minimum general education portion of the A.A.S. degree.
See page 51 for A.A.S. general education degree requirements.

## Required Program Core

CIS (032)
101 Introduction to Computer Information Systems
120 Introduction to Microcomputers
250 Introduction to Systems
Business (030)
111 Introduction to Business
181 Financial Accounting
182 Managerial Accounting
Math (045)
118 General Education Math $\underline{\text { OR }}$ any Math course 118 or above
Additional CIS Required Courses
Select four courses from the following:
CIS (032)
103 Introduction to Basic Language (3)
122 Introduction to Word Processing on
Microcomputers (3)
142 Introduction to C or C++ Language (3)
144 Introduction to JAVA Programming Language (3)
145 Introduction to Database on Microcomputers (3)
158 Beginning Internet (3)
181 Web Development I/Basic Web Technology (3)
182 Web Development II/Client Side Script (3)
244 Advanced JAVA Programming Language (3)
258 Advanced Internet (3)

## Electives

Students should meet with a college Academic Advisor for selection of elective courses.

## TOTAL PROGRAM MINIMUM CREDIT HOURS

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(3)
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$\square$
COMPUTER INFORMATION SYSTEMS 012Basic Certificate (B.C.) 12 Credit Hours (CH)
Required Program Core6 CH
CIS (032)
101 Introduction to Computer Information Systems ..... 3
120 Introduction to Microcomputers ..... 3
CIS Electives ..... 6 CH
Select two courses from the following or otherrecommended courses by a college Academic Advisor:
CIS (032)
103 Introduction to Basic Language (3)
122 Introduction to Word Processing on Microcomputers (3)
142 Introduction to C or C++ Language (3)
144 JAVA I (3)145 Introduction to Database on Microcomputers (3)
158 Beginning Internet (3)9 CH182 Web Development II/Client Side Script (3)244 Advanced JAVA Programming Language (3)
258 Advanced Internet (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS12 CH

# Programs of Study <br> information Technology 

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 297 <br> Basic Certificate (B.C.) 20 Credit Hours (CH)

The Computer Security and Forensic Investigation (CSFI) program comprises two tracks: (1) Information Security and (2) Computer Forensic Law Enforcement. CSFI includes a required program core group of courses, expands on the forensic concentration of the FCI program, and adds an Information Security component. All students are required to complete the core course group prior to selecting the one track that fits their objective.

1) The Information Security track focuses on design, implementation and management of information security in the corporate environment. Students will be prepared for the nationally recognized Certified Information Systems Security Professional (CISSP) Exam. CISSP designation can provide career enhancement, increase marketability, and ensure prospective employers of a certain level of information security knowledge.
2) The Computer Forensic/Law Enforcement track focuses on computer forensic investigation and provides law enforcement personnel, criminal justice majors, and other interested parties with the procedures and methodology for investigation of computer crimes, and handling electronic evidence as it relates to criminal procedures.

## Required Program Core (minimum) 20 CH

 Computer Security \& Forensic Investigation (162)101 General Technology Essentials*
102 Introduction to Information Security
202 Introduction to Cybercrime
Information Security Track (1)**
213 Information Security Technology
214 Information Security Systems Analysis
215 Information Security Domains
216 Information Security Program Management
OR
Computer Forensic/Law Enforcement Track (2)**
203 Financial Cybercrime
204 Introduction to Computer Forensics \& Law
205 Computer Forensic Technology
206 Internet Vulnerabilities, Criminal Activities
\& Investigative Procedures

## TOTAL PROGRAM MINIMUM CREDIT HOURS

20 CH

[^4]
## ENVIRONMENTAL GIS 264

Basic Certificate (B.C.) 21 credit hours (CH)
The Environmental GIS (Geographic Information Systems) program introduces the fundamental concepts of GIS and real world representation, using GIS vector and raster technology via spatial data input, topology, cartographic projections, and coordinate systems. The program prepares students with background information and technological skills to explore, capture, manage, analyze, model, perform spatial operations, and to find trends and patterns on landscape.

## General Education

## 13 CH

English (035)
101 Composition
CIS (032)
120 Introduction to Microcomputers
Geography (084)
201 Physical Geography OR 3
Geology (075)
201 Physical Geology
Mathematics (045)
125 Intro to Statistics

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4
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Required Program Core $\quad 8 \mathrm{CH}$
Physical Science (076)
201 Fundamental Vector GIS 4
202 Raster GIS \& Remote Sensing 4
TOTAL PROGRAM MINUMUM CREDIT HOURS

## INFORMATION PROCESSING 719 <br> Basic Certificate (B.C.) 26 Credit Hours (CH)

The program develops skills in information technology, emphasizing software applications and modern office procedures. Courses are designed to provide instruction in computer keyboarding, computer literacy, word processing, spreadsheets, databases, business writing, and use of the Internet and electronic mail. Students also receive training in desktop publishing and apply their skills to office settings through their practicum experience.

| Required Program Core | $\mathbf{2 6}$ CH |
| :--- | ---: |
| 330BSCM |  |
| 503 Business Writing | 3 |
| 508 Practicum | 1 |
| 525 Introduction to Office Systems | 2 |
| 526 Introduction to Personal Computers | 2 |
| 540 Business Math | 3 |
| 543 Keyboarding for Microcomputers I | 2 |
| 544 Keyboarding for Microcomputers II | 2 |
| 550 Word Processing Applications | 2 |
| 551 Spreadsheet Applications | 2 |
| 552 Database Applications | 2 |
| 553 Desktop Publishing Applications | 2 |
| 568 Language Skills I | 3 |

TOTAL PROGRAM MINIMUM CREDIT HOURS

## NETWORK SECURITY AND FORENSICS <br> (ADVANCED) 384 <br> Advanced Certificate (A.C) 31 Credit Hours (CH)

This comprehensive certificate program provides extensive study to combine computer programming, emergency management and network security into one entire entity. It furthers the study in the Homeland Security industry to develop the emergency recovery plan in computer information systems from natural disaster and terrorist attack.

| Required Program Core | 19 CH |
| :--- | ---: |
| Computer Security \& Forensic Investigation (162) | 4 |
| 103 Intro to Network Security | 4 |
| 109 Network Systems Security | 3 |
| 200 Network Emergency Management | 4 |
| 209 Network Defense | 4 |
| 221 Network Forensics | $\mathbf{3 C H}$ |
| Microcomputer Concentration |  |
| Select one course from the following: |  |
| CIS (032) |  |
| 101 Intro to Computer Information System (3) |  |
| 120 Intro to Microcomputers (3) |  |
| 122 Intro to Word Processing on Microcomputers (3) |  |
| 123 Intro Spreadsheet on Microcomputers (3) |  |
| 250 Introduction to Systems (3) |  |
| Program Language Concentration |  |
| Select three courses from the following: |  |
| CIS (032) |  |
| 103 Intro to Basic Language (3) |  |
| 142 Intro to Cor C++ Language (3) |  |
| 145 Intro to Database on Microcomputers (3) |  |
| 158 Beginning Internet (3) |  |
| 258 Advanced Internet (3) |  |

258 Advanced Internet (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS

## NETWORK SECURITY AND FORENSICS (BASIC) 383 <br> Basic Certificate (B.C) 18 Credit Hours (CH)

This Basic Certificate program provides specialized study for those students with an interest in network security, security management, cryptography, information forensics and related areas. The program targets novice students in network security and forensics and in related areas such as public and private security agencies, computer companies and consultancies, police forces, the military services, and other government agencies.

## Required Program Core (minimum) 15 CH

Select four from the following:
Computer Security \& Forensic Investigation (162)
103 Intro to Network Security (4)
109 Network Systems Security (4)
200 Network Emergency Management (3)
209 Network Defense (4)
221 Network Forensics (4)
Concentration
Select one course from the following:
CIS (032)
101 Intro to Computer Information Systems (3)
120 Intro to Microcomputers (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS

NETWORKING SYSTEMS AND TECHNOLOGY 141
Associate in Applied Science degree (A.A.S.) (60 Credit Hours)

A student chooses to major in one of two tracks:
(1) Networking or (2) Hardware/Software Support, depending on the career goals. The Networking Track is for individuals interested in maintaining network equipment and software such as servers, hubs, switches and routers. The Hardware/Software Support track prepares individuals for PC hardware and software maintenance and support. Both tracks also prepare students for a variety of computer industry certifications: A+, Network, CNA, MCP, MOUS, CCNA.

## General Education

18 CH
Students should meet with a college Academic Advisor for selection of specific course requirements for the general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education degree requirements.

## Programs of Study <br> information Technology

## Required Program Core

(Track 1 or Track 2)
Select one of the following two tracks:
Networking Track (1)
CIS (032)
101 Intro to Computer Information Systems
116 Introduction to Operating Systems
120 Introduction to Microcomputers
Networking Technologies (165)
121 Internetworking I
(minimum) 42 CH

122 Internetworking II
221 Internetworking III
222 Internetworking IV
Students should meet with a college Academic Advisor for selection of a minimum 21 credit hours from the additional core courses shown below:

Note: For students who do not have any equivalent professional experience, at least three credit hours of an internship is required.

Business (030)
111 Intro to Business (3)
CIS (032)
158 Beginning Internet (3)
258 Advanced Internet (3)
260 CIS Field Project (3) OR
299 Special Topics in CIS (3-4)
Cooperative Work Experience (008)
106 Commercial-Data Processing CWE (3-6)
108 Engineering \& Industrial Tech CWE (3-6)
206 Commercial Data Processing CWE (3-6)
208 Engineering \& Industrial Tech CWE (3-6) OR33
Hardware/Software Support Track (2)
CIS (032)
101 Intro to Computer Information Systems ..... 3
116 Introduction to Operating Systems ..... 3
120 Introduction to Microcomputers ..... 3
122 Introduction to Word Processing on Microcomputers ..... 3
3 ..... 3
145 Introduction to Data Base on Microcomputers ..... 3
Networking Technologies (165) 121 Internetworking I ..... 3
Students should meet with a college Academic Advisor for selection of a minimum 21 credit hours from the additional core courses shown below: ..... 21 CH
Note: For students who do not have any equivalent professionalexperience, at least three credit hours of an internship is required.
Business (030)
111 Intro to Business (3)
CIS (032)
158 Beginning Internet (3)
258 Advanced Internet (3)
260 CIS Field Project (3) OR
265 CIS Internship (3)
Cooperative Work Experience (008)
106 Commercial-Data Processing CWE (3-6)
108 Engineering \& Industrial Tech CWE (3-6)
206 Commercial Data Processing CWE (3-6)
208 Engineering \& Industrial Technologies (3-6)
NETWORKING SYSTEMS AND TECHNOLOGY 142
Advanced Certificate (A.C.) 30 Credit Hours (CH)
Required Program Core ..... 6 CH
CIS (032)
101 Introduction to Computer Information Systems ..... 3
116 Introduction to Operating Systems ..... 3
Additional Core Courses ..... 24 CH
Networking Track (1)Networking Technologies (165)121 Internetworking I3
122 Internetworking II ..... 3
221 Internetworking III ..... 3
222 Internetworking IV ..... 3
Hardware/Software Support Track (2)
CIS (032)
120 Introduction to Microcomputers ..... 3
122 Introduction to Word Processing ..... 3
on Microcomputers
123 Introduction to Spreadsheets ..... 3on Microcomputer
3
145 Introduction to Data Base on Microcomputers30 CH

# Programs of Study <br> Information Technology 

NETWORKING SYSTEMS AND TECHNOLOGY 143
Basic Certificate (B.C.) 18 Credit Hours (CH)
Required Program Core
CIS (032)
101 Introduction to Computer Information Systems
116 Introduction to Operating Systems
Additional Core Courses
Select one of the following two tracks:
Networking Track (1)
Networking Technologies (165)
121 Internetworking I
122 Internetworking II
221 Internetworking III
222 Internetworking IV
OR
Hardware/Software Support Track (2)
CIS (032)
120 Introduction to Microcomputers
122 Introduction to Word Processing
on Microcomputers
123 Introduction to Spreadsheets
145 Introduction to Data Base on Microcomputers
TOTAL PROGRAM MINIMUM CREDIT HOURS

## WEB DEVELOPMENT 155

Advanced Certificate (A.C.) 31 Credit Hours (CH)
The Web Development Advanced Certificate program prepares students for entry-level positions as Web site editors, developers, or designers. Students acquire an understanding of programming principles and languages incorporated in Web pages, and become proficient in HTML and related technologies. This program will also be useful to individuals whose job duties have expanded to include web site responsibilities or who wish to develop web pages for their businesses.

| Required Program Core | 13 CH |
| :--- | ---: |
| CIS (032) |  |
| 181 Web Development I | 3 |
| 182 Web Development II | 3 |
| 281 Web Development III | 3 |
| 282 Web Development IV | 4 |

CIS (032)
181 Web Development I 3
182 Web Development II 3
281 Web Development III 3
282 Web Development IV

## Electives

Select six courses from the following:
CIS (032)
101 Intro to Computer Information Systems (3)
103 Intro to BASIC Language (3)
116 Intro to Operating Systems (3)
120 Intro to Microcomputers (3)
12 CH 122 Intro to Word Processing (3)
123 Intro to Spreadsheets (3)
144 JAVA I (3)
145 Intro to Database (3)
203 Advanced BASIC Programming (3)
244 JAVA II (3)
250 Intro to Systems (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS

## WEB DEVELOPMENT 152

Basic Certificate (B.C.) 16 Credit Hours (CH)

281 Web Development III/Server Side Program
282 Web Development IV/Web Database Integr.

## Electives

Select one course from the following:
CIS (032)
101 Intro to Computer Information Systems (3)
103 Intro to BASIC Language (3)
116 Intro to Operating Systems (3)
120 Intro to Microcomputers (3)
122 Intro to Word Processing on Micro (3)
123 Intro Spreadsheet on Microcomputer (3)
144 Intro to JAVA Programming Language (3)
145 Intro to Database on Microcomputer (3)
203 Advanced BASIC Programming (3)
244 Advanced JAVA Programming Language (3) 250 Intro to Systems (3)

TOTAL PROGRAM MINIMUM CREDIT HOURS
Required Program Core
CIS (032)
181 Web Development I/Basic Web Tech. 3
182 Web Development II/Client Side Script. 3

16 CH

# Programs of Study <br> Law, Public Safety, Corrections and Security 

CRIMINAL JUSTICE/PRIVATE POLICE SERVICES 319
Advanced Certificate (A.C.) 30 Credit Hours (CH)
The Advanced Certificate program is focused on the study of theory and practices of current trends in private police services, criminal and civil law for private security officers. The program can lead to promotion to security directors, middle-management positions or self-employment.
Required Program Core
Criminal Justice (080)
102 Administration of Criminal Justice
114 Administration of Juvenile Justice ..... 3
170 Scope \& Purpose of Private Police ..... 3
172 Management \& Supervisice
211 Introduction to Investigation
234 Criminal Law and Procedure
English (035)
107 Report Writing
CIS (032)
120 Introduction to Microcomputers
TOTAL PROGRAM MINIMUM CREDIT HOURS
CRIMINAL JUSTICE/PRIVATE POLICE SERVICES 326
Basic Certificate (B.C.) 18 Credit Hours (CH) ..... 3
Required Program Core
Criminal Justice (080)
102 Administration of Criminal Justice
170 Scope \& Purpose of Private Police3
172 Management \& Supervision for Private Police3
174 Law for Private Police ..... 3
211 Introduction to Investigation3
222 Professional Responsibilities
TOTAL PROGRAM MINIMUM CREDIT HOURS

CRIMINAL JUSTICE/PUBLIC POLICE SERVICES 294
Associate in Applied Science degree (A.A.S.) 60 Credit Hours (CH)

This A.A.S. program studies the theory and practice of contemporary criminal justice for those who plan careers as police officers or other criminal justice positions, as well as police who wish to advance in rank or into administrative levels of criminal justice.
General Education ..... 15 CH
tudents should meet with a college Academic Advisorfor selection of specific course requirements for the 15.0 credithour minimum general education portion of the A.A.S. degree.See page 51 for A.A.S. general education degree requirements.
201 National Government (3) OR6
Psychology (087)
201 General Psychology ..... (3) OR
Sociology (089)
201 Introduction to the Study of Society (3)
Electives ..... 12 CHThe three courses listed below in Criminal Justice and Englishdisciplines are recommended for elective credit as well asother courses recommended by a college Academic Advisor.Criminal Justice (080)155 Introduction to Corrections (3)250 Introduction to Criminology (3)English (035)
107 Report Writing (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 60 CH

## Programs of Study

## Law, Public Safety, Corrections and Security

## CRIMINAL JUSTICE/PUBLIC POLICE SERVICES 295

Advanced Certificate (A.C.) 30 Credit Hours (CH)

## Required Program Core

Criminal Justice (080)
102 Administration of Criminal Justice
114 Administration of Juvenile Justice
202 Issues in Criminal Justice
211 Introduction to Investigation
221 Police Organization and Management
222 Professional Responsibility
234 Criminal Law and Procedure
256 Constitutional Law
CIS (032)
120 Introduction to Microcomputers

## Additional Field Courses

Select one course from the following:
Criminal Justice (080)
155 Introduction to Corrections (3)
English (035)
107 Report Writing (3)

## TOTAL PROGRAM MINIMUM CREDIT HOURS

CRIMINAL JUSTICE/PUBLIC POLICE SERVICES 296
Basic Certificate (B.C.) 15 Credit Hours (CH)
Required Program Core
Criminal Justice (080)
102 Administration of Criminal Justice
114 Administration of Juvenile Justice
202 Issues in Criminal Justice
211 Introduction to Investigation
234 Criminal Law and Procedure or
256 Constitutional Law

## TOTAL PROGRAM MINIMUM CREDIT HOURS

## General Education

Chemistry (073)
121 Basic Chemistry I 4
CIS (032)
120 Introduction to Microcomputers 3
English (035)
101 Composition
Psych (087)
201 General Psychology
Speech (095)
101 Fundamentals of Speech Communication
Arts/Humanities
Students should meet with a college Academic Advisor for selection of one course in this discipline.

See page 51 for A.A.S. general education degree requirements.
Required Program Core
Select one of the following three tracks:
Homeland Security Track 1
Environmental Technology (027)
100 Introduction to Emergency Management 3
15 CH
The Emergency Management A.A.S. degree was developed in response to a long recognized need for a systematized approach to preparing emergency managers. Following the recommendations of the model curriculum of the Federal Emergency Management Agency's Higher Education Program, students choose from one of the three Emergency Management program tracks: 1) Homeland Security, 2) Incident Command, or 3) Emergency Preparedness.

Note: Also see individual Basic Certificate programs for Homeland Security 356, Incident Command 357, and Emergency Preparedness 358.433

EMERGENCY MANAGEMENT 355
Associate in Applied Science degree (A.A.S.) 64 Credit Hours (CH)106 Introduction to Terrorism3
115 Intro to Weapons of Mass Destruction ..... 3
205 Terrorism Planning ..... 3
215 Advanced Weapons of Mass Destruction ..... 3
OR

Incident Command Track 2Environmental Technology (027)
100 Introduction to Emergency Management ..... 3
101 Basic Skills in Emergency Management ..... 3
102 Leadership, Influence and Communication ..... 3
111 Basic Incident Command ..... 3
212 Advanced Incident Command ..... 3
221 Emergency Management Operations I ..... 3

# Programs of Study Law, Public Safety, Corrections and Security 

Emergency Preparedness Track 3
Environmental Technology (027)
100 Introduction to Emergency Management ..... 3
101 Basic Skills in Emergency Management ..... 3
103 Introduction to Emergency Planning ..... 3
108 Mitigation Management
113 Emergency Resource Management3
203 Advanced Emergency Planning33
Additional Required Core ..... 11 CH
Environmental Technology (027)
112 Disaster Response and Recovery
225 Psychology of Terrorism or
226 Disaster Psychology
222 Emergency Management Operations II
(capstone internship)
Recommended Core Electives4Environmental Technology (027)
122 Disaster Site Worker (3)
123 Chemical Emergency Response (3)
Recommended Other Electives ..... (minimum) 10 CH
Select three to four courses from the following:
CIS (032)
116 Introduction to Operating Systems (3)
Computer Security and Forensic Inv (162)
102 Introduction to Information Security (4)
213 Information Security Technology (3)
Emergency Medical Technician (120)
101 EMT Basic (3)
Environmental Technology (027)
121 Introduction to Hazardous Materials Management (3)
131 Environmental Health and Safety (3)
141 Site Investigation and Sampling (3)
181 Emergency Response Level I, II, III (3)
TOTAL PROGRAM MINIMUM CREDIT HOURS64 CH
EMERGENCY PREPAREDNESS 358
Basic Certificate (B.C.) 18 Credit Hours (CH)

This certificate is intended for those individuals whose function is in the planning and support sectors of the emergency response field. This is a broad field of activity as it addresses the common needs of all emergency situations, but includes the unique needs of specific types of emergencies, i.e., the needs of planning and response to a hurricane vs. a terrorist attack involving weapons of mass destruction.

[^5]Required Program Core ..... 18 CH
Environmental Technology (027)
100 Introduction to Emergency Management ..... 3
101 Basic Skills in Emergency Management ..... 3
103 Introduction to Emergency Planning ..... 3
108 Mitigation Management ..... 3
113 Emergency Resource Management ..... 3
203 Advanced Emergency Planning ..... 3
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 18 CH
FIRE SCIENCE AND TECHNOLOGY 336
Associate in Applied Science degree (A.A.S.) 60 Credit Hours (CH)The Fire Science and Technology A.A.S. degree includesthe study of principles, practices, and equipment used in fireprevention, protection, and suppression. This degree maylead to employment with municipal, industrial, or governmentfire departments as a fire fighter, arson investigator, safetyand fire prevention specialist, or fire science traininginstructor, or can help promote advancement in rank forpersons employed as fire fighters.
General Education ..... (minimum) 16 CH
English (035)
101 Composition ..... 3
Humanities (041)201 General Course I Humanities OR3
202 General Course II Humanities
Mathematics (045)
118 General Education Math ..... 3
Social Science (088)
101 General Course I Social Science OR ..... 3
102 General Course II Social Science
Physical Science (076)112 General Course II4
See page 51 for A.A.S. general education degree requirements.
Required Program Core ..... 30 CH
Fire Science and Technology (116)
101Introduction to Fire Science ..... 3
102 Fire Fighting Tactics I ..... 3
103 Fire Suppression Systems ..... 3
104 Fire Suppression Apparatus ..... 3
201 Fire Service Hydraulics ..... 3
202 Building Construction for Fire Service ..... 3
203 Fire Protection Systems ..... 3
204 Fire Fighting Tactics II ..... 3
205 Chemistry of Flammable Materials ..... 3
210 Fire Prevention Fundamentals I ..... 3
Electives ..... 14 CHStudents should meet with a college Academic Advisorfor selection of elective courses.
TOTAL PROGRAM MINIMUM CREDIT HOURS60 CH

## Programs of Study

## Law, Public Safety, Corrections and Security

## HOMELAND SECURITY 356

Basic Certificate (B.C.) 18 Credit Hours (CH)
This Basic Certificate is designed to meet new federal requirements for those in law enforcement, emergency response, and public safety fields who perform response activities at the emergency scene relating to the needs of on-scene emergency response regardless of the type of emergency.
Note: Also, see Emergency Management A.A.S. degree 355.

## Required Program Core

18 CH
Environmental Technology (027)
100 Introduction to Emergency Management
101 Basic Skills in Emergency Management
106 Introduction to Terrorism
115 Intro to Weapons of Mass Destruction
205 Terrorism Planning
215 Advanced Weapons of Mass Destruction
TOTAL PROGRAM MINIMUM CREDIT HOURS

## INCIDENT COMMAND 357

Basic Certificate (B.C.) 18 Credit Hours (CH)
This certificate is designed to meet new federal requirements for those in law enforcement, emergency response, and public safety fields who perform response activities relating to the needs of on-scene emergency response regardless of the type of emergency.
Note: Also, see Emergency Management A.A.S. degree 355.

## Required Program Core

Environmental Technology (027)
100 Introduction to Emergency Management
101 Basic Skills in Emergency Management
102 Leadership, Influence and Communication
111 Basic Incident Command
212 Advanced Incident Command
221 Emergency Management Operations I
TOTAL PROGRAM MINIMUM CREDIT HOURS
18 CH

## PARALEGAL 304

Associate in Applied Science degree (A.A.S.)
63 Credit Hours (CH)
The study of paralegal prepares students with the necessary skills to become highly trained paralegals to meet the needs of corporations, law firms and offices, and other sectors where law-related work is performed. The A.A.S. requires 24 hours of credit from the General Education Core and 39 credit hours of core paralegal courses for a total of 63 credit hours. Students completing an A.A.S. in Paralegal are employable in any area where law-related work is conducted.
General Education ..... 24 CH
CIS (032)
120 Introduction to Microcomputers ..... 3
English (035)
101 Composition I3
102 Composition II ..... 3
Humanities (041) ..... 3
123 Introduction o to Arts \& Ideas OR201 General Humanities IPhilosophy (043)105 Logic OR
106 Introduction to Philosophy OR
107 Ethics
Political Science (086)
201 The National Government ..... 3
Social Science (088)
102 General Course II ..... 3
Speech (095)
101 Fundamentals of Speech Communication ..... 3
Required Program Core ..... 39 CH
Introductory Courses (may be taken concurrently):
Business (030)
147 Introduction to Paralegal Studies ..... 3
148 Civil Litigation ..... 3
149 Family Law ..... 3
Advanced Courses:
Business (030)
150 Legal Research \& Writing I ..... 3
219 Real Estate Law for the Paralegal ..... 3
220 Criminal Law for the Paralegal ..... 3
222 Business Law for the Paralegal ..... 3
223 Tort Law ..... 3
224 Wills, Trusts \& Probate ..... 3
225 Legal Research \& Writing II ..... 3
Additional Core courses: ..... 6 CHSelect two courses from the following:
Business (030)
227 Elder Law
228 Environmental Law for the Paralegal
229 Immigration Law
238 Legal Ethics
239 Business Organization
Select one course from the following: ..... 3 CH
226 Internship for the Paralegal
240 Computers in the Law Office
Note: Although not required, elective credit may be recommended by the Program Director in consultation with the student.

TOTAL PROGRAM MINIMUM CREDIT HOURS


## Programs of Study

MANUFACTURING

## COMPUTERIZED NUMERICAL CONTROL (CNC) 748

Advanced Certificate (A.C.) 41 Credit Hours (CH)
Students will study the basic principles of machine tool technology incorporating basic computer applications to the manufacturing industry, including CNC programming and computer integrated manufacturing (CAD/CAM).

Required Program Core<br>330BSCM<br>546 Career Development I<br>332ENGR<br>300 Introduction to CAD<br>301 CNC Operations<br>302 CNC Programming I<br>303 CNC Programming II<br>304 CAD/CAM Numerical Control<br>305 Introduction to Computer Application in Manufacturing (CAM)<br>539 Metallurgy<br>761 Machine Shop Math<br>764 Machine Shop Technology<br>767 Blueprint Reading<br>770 Machine Tool Operations<br>777 Statistical Process Control<br>779 Internship

## TOTAL PROGRAM MINIMUM CREDIT HOURS

## 41 CH

## INDUSTRIAL MAINTENANCE 790

Advanced Certificate (A.C.) 36 Credit Hours (CH)
This Advanced Certificate program applies the theory and application of electricity and electronics to wiring, motors, industrial controls, electronic instrumentation, and programmable logic controllers. The program integrates academic and occupational education and leads to an internship at an actual worksite. These skills will help students expand their career opportunities and career plans in occupations related to power and control of buildings and equipment. Projects will demonstrate wiring, motor controls, switches, power operated mechanical devices, and other set-ups of systems that apply to electric/electronic power controls.
Required Program Core ..... 36 CH
432ENGR
502 Electrical Wiring ..... 3
503 Applied Mathematics ..... 3
504 Intro to Pneumatic Technology ..... 2
505 Solid State Fundamentals ..... 3
506 Industrial Motors ..... 3
507 Industrial Controls ..... 3
508 Digital Electronics Fundamentals ..... 3
509 Industrial Programmable Control ..... 3
510 Industrial Hydraulics ..... 3
512 Internship ..... 2
515 Principles of DC/AC ..... 4
516 Quality Assurance ..... 2
517 National Electric Code ..... 2
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 36 CH
MANUFACTURING TECHNOLOGY MAINTENANCE MECHANIC 770
Associate of Applied Science degree (A.A.S.) 62 Credit Hours (CH)

This A.A.S. degree offers the technologies required for
Maintenance Mechanics in the manufacturing or service
industries. The program is appropriate for career changes,
high school graduates, general education diploma holders,
and machining workers with a need to enhance their careers.
The program will cover theory and practical projects for
Maintenance Mechanics.
General Education ..... 16 CH
English (035)
101 Composition ..... 3
111 Introduction to Business ..... 3
Mathematics (045)
Social Science (088)
101 General Course I Social Science ..... 3
Philosophy (043) ..... 3
Required Program Core340MFGT
102 Blueprint Reading Dimensioning \& Tolerances ..... 3
103 Quality Control ..... 3104 Statistical Process Control111 Machining Processes I3
112 Machining Processes II ..... 3
191 Industrial Electricity ..... 4
216 CNC Machining ..... 3
253 Pneumatics ..... 3
255 Industrial Hydraulics ..... 3
291 Programmable Logic Controls ..... 3
292 Principles of Mechanisms ..... 3

## Electives

Select four courses from the following:
CAD Technology (049)
170 CAD Technology II (3)
171 CAD Technology III (3)
CIS (032)
120 Introduction to Microcomputers (3)
Engineering (034)
131 Engineering Graphics \& Intro to Design (3)
340MFGT
201 Supervised Work-Based Learning (3)
Speech 095
101 Fundamentals of Speech Communication (3)

TOTAL PROGRAM MINIMUM CREDIT HOURS

## MANUFACTURING TECHNOLOGY MAINTENANCE

 MECHANIC 771Advanced Certificate (A.C.) 34 Credit Hours (CH)
Required Program Core
English (035)
101 Composition
Mathematics (045)
107 Math for Technicians I OR
140 College Algebra
340MFGT
102 Blueprint Reading Dimensioning \& Tolerances
111 Machining Processes I
112 Machining Processes II
191 Industrial Electricity
201 Supervised Work Based Learning
253 Pneumatics
255 Industrial Hydraulics
291 Programmable Logics Controllers
292 Principles of Mechanisms

## TOTAL PROGRAM MINIMUM CREDIT HOURS

## PROCESS TECHNOLOGY 789

Associate in Applied Science degree (A.A.S.)
63 Credit Hours (CH)
The Process Technology A.A.S. degree prepares students to work as entry-level operators or technicians in the process industry. The program prepares graduates to demonstrate technical knowledge, skills and abilities in computer applications, instrument systems, process systems, process trouble-shooting, quality control and safety control.

## Program Requirements for Admission:

- Cumulative GPA of 2.0 or higher.
- Must meet English 101 and Math 140 eligibility requirement
- Chemistry and Physical Science courses must be
completed within five years of admission to the Process
Technology Program. These courses can be audited after
five years. If audited, the student must meet the
requirements of the course.
- Subject to criminal background check and random drug
screening screening.


## General Education <br> 18 CH

English (035)
101 Composition
Fine Arts/Humanities ..... 3
Social \& Behavioral Sciences ..... 3
Physical/Life Sciences ..... 9

Students should meet with a college Academic Advisor for selection of courses for the general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education requirements.

## Required Program Core

CIS (032)
120 Introduction to Microcomputers
Mathematics (045)
140 College Algebra
340PRTE
115 Introduction to Process Technology 3
116 Process Instrumental I
117 Process Instrumental II 4
118 Process Technology Equipment 6
119 Safety, Health and Environment 3
202 Quality Control 3
203 Unit Systems 4
204 Operations 4
205 Process Troubleshooting 4
206 Process Technology Internship 3
TOTAL PROGRAM MINIMUM CREDIT HOURS 63 CH

## PROCESS TECHNOLOGY 754

Advanced Certificate (A.C.) 38 Credit Hours (CH)
Required Program Core 38 CH
CIS (032)
120 Introduction to Microcomputers 3
340PRTE
115 Introduction to Process Technology 3
116 Process Instrumentation I 4
117 Process Instrumentation II 4
118 Process Technology Equipment 6
119 Safety, Health and Environment 3
202 Quality Control 3
203 Unit Systems 4
204 Operations 4
205 Process Troubleshooting 4
TOTAL PROGRAM MINIMUM HOURS 38 CH

## Science, Technology, Engineering and Mathematics

## AGRICULTURAL BIOTECHNOLOGY 389

Advanced Certificate (A.C.) 31 Credit Hours (CH)
The Advanced Certificate program provides the study of theory, principles, techniques and current trends in biotechnology. This program is especially meant for students with prior college-level experience in biology and chemistry. Permission of the Department Chairperson is required to enroll in this program.

## Program Required Core

31 CH
Biology (023)
121 Biology 1
209 Biochemistry
210 Survey of Biotechnology
250 Introduction to Molecular Biology
251 Molecular Biology I
252 Molecular Biology II
253 Plant Molecular Biology
260 Bioinformatics
299 Special Topics in Biology
TOTAL PROGRAM MINIMUM CREDIT HOURS

## CHEMICAL LABORATORY TECHNOLOGY 137 <br> Associate of Applied Science (A.A.S.) 62 Credit Hours (CH)

This A.A.S. degree focuses on the study of the development, production and utilization of industrial chemicals and methods used in modern chemical laboratories. The program can lead to employment as a chemical lab technician (working under supervision of senior technicians), engineer, or scientist in production or testing, as well as in commercial utilization of chemicals and chemical products.

## General Education (minimum) 15 CH

English (035)
101/102 Composition 6
Mathematics (045)
140 College Algebra 4
Students should meet with a college Academic Advisor for selection of remaining course requirements for the general education portion of the A.A.S. degree.
See page 51 for A.A.S. general education degree requirements.
Required Program Core $\quad 31 \mathrm{CH}$
Chemistry (073)
201 General Chemistry I 5
203 General Chemistry II 5
205 Organic Chemistry I 6
207 Organic Chemistry II 6
217 Intro to Instrumental Analysis 4
Mathematics (045)
207 Calculus \& Analytical Geometry I 5
Electives $\quad 16 \mathrm{CH}$
Select a minimum of four courses from the following:
CIS (032)
120 Intro to Microcomputers (3)
Math (045)
141 Plane Trigonometry (3)
208 Calculus \& Analytical Geometry II (5)
Physics (077)
235 Engineering Physics I/Mechanics \& Wave Motion (4)
236 Engineering Physics II/Electricity \& Magnetism (4)
TOTAL PROGRAM MINIMUM CREDIT HOURS
62 CH

# Programs of Study <br> Transportation Distribution and Logistics 

## AUTOMOTIVE (TECHNOLOGY) 125

Associate in Applied Science (A.A.S) 66 Credit Hours (CH)
The Automotive A.A.S. degree provides the necessary foundation and practical experience to pursue entry-level positions that meet the changing demands of the automotive industry. Entry-level positions may be found in automotive dealerships, automotive franchises, independent service repair shops, auto part stores, or through self-employment. Students will learn the technical skills essential to employment in the field of maintenance technology, auto body care, chassis, diesel, and power train, leading to employment in service, maintenance, and areas of technological specialty such as detailing, auto body paint and refinishing, in addition to management occupations or self-employment. Students will also be able to consider Industrial Engineering Technology transfer of credits from the program core courses to state universities after consultation with an Admissions representative at the four-year institution to which they will transfer.

## General Education

Students should meet with a college Academic Advisor for selection of specific course requirements for the general education portion of the A.A.S. degree.

See page 51 for A.A.S. general education degree requirements.

| Required Program Core | 38 CH |
| :---: | :---: |
| Automotive Technology (105) |  |
| 101 Introduction to Automotive Technology | 4 |
| 103 Engine Concepts | 4 |
| 104 Electrical Systems \& Power Accessories | 4 |
| 109 Automotive Brakes | 4 |
| 209 Steering \& Suspension Systems | 4 |
| 215 Automotive Temperature Control Systems | $\frac{4}{24}$ |
| Option 1 or Option 2: (minimum) |  |
| Option 1 |  |
| Automotive Technology (105) |  |
| 105 Fuel Management I (4) |  |
| 205 Fuel Management II (4) |  |
| 206 Fuel Management III (4) |  |

## OR

## Option 2

Automotive Technology (105)
106 Fuel Systems (5)
210 Performance \& Drivability (5)
Option 1 or Option 2:
4

## Option 1

Automotive Technology (105)
211 Auto Service Management (4)

## OR

## Option 2

Automotive Technology (105)
212 Manual Drive Train \& Axles (4)

## Electives

Automotive Technology (105)
Work-Based Learning I (3-6)
204 Electrical Systems II (4)
207 Transmissions, Transaxle \& Driveline (4)

## CIS (032)

120 Introduction to Microcomputers (3)

## TOTAL MINIMUM PROGRAM CREDIT HOURS

## AUTOMOTIVE (TECHNOLOGY) 130

Advanced Certificate (A.C.) 46 Credit Hours (CH)

## Required Program Core

46 CH
Automotive Technology (105)
101 Introduction to Automotive Technology 4
103 Engine Concepts 4
104 Electrical Systems \& Power Accessories 4
109 Automotive Brakes 4
204 Electrical Systems II 4
209 Steering \& Suspension Systems 4
215 Automotive Temperature Control Systems 4
Basic Core 28
Option 1 or Option 218
Option 1
106 Fuel Systems (5)
207 Transmission, Transaxle \& Driveline (4)
210 Performance \& Driveability (5)
212 Manual Drive Train \& Axles (4)
OR
Option 2
105 Fuel Management I (4)
205 Fuel Management II (4)
206 Fuel Management III (4)
108 Work Based Learning I (6)
MINIMUM PROGRAM CREDIT HOURS

## AUTOMOTIVE (TECHNOLOGY) 116

Basic Certificate (B.C.) 20 Credit Hours (CH)

## Required Program Core

Automotive Technology (105)
101 Introduction to Automotive Technology
103 Engine Concepts
104 Electrical Systems \& Pow Accessories
109 Automotive Brakes
209 Steering \& Suspension Systems 4
TOTAL PROGRAM MINIMUM CREDIT HOURS

## Programs of Study

## Transportation Distribution and Logistics

AUTOMOTIVE BODY RECONSTRUCTION<br>TECHNOLOGY 112<br>Basic Certificate (B.C.) 25 Credit Hours (CH)<br>\section*{Required Program Core}<br>Automotive Technology (105)<br>101 Introduction to Automotive Technology<br>107 Automotive Body Welding<br>117 Auto Body Reconstruction I<br>211 Auto Service Management<br>217 Auto Reconstruction II<br>220 Collision Estimating<br>Cooperative Work Experience (008)<br>101Cooperative Education Exploration

TOTAL PROGRAM MINIMUM CREDIT HOURS

## AUTOMOTIVE BODY REPAINTING TECHNOLOGY 111

Basic Certificate (B.C.) 26 Credit Hours (CH)

## Required Program Core

Automotive Technology (105)
101 Introduction to Automotive Technology
118 Auto Body Repainting I
119 Auto Body Detailing
211 Auto Service Management
218 Auto Body Repainting II
220 Collision Estimating
Cooperative Work Experience (008)
101Cooperative Education Exploration
TOTAL PROGRAM MINIMUM CREDIT HOURS

AUTOMOTIVE CHASSIS MAINTENANCE 134
Basic Certificate (B.C.) 19 Credit Hours (CH)

## Required Program Core

Automotive Technology (105)
101 Introduction to Automotive Technology
104 Electrical Systems \& Power Accessories
109 Automotive Brakes
209 Steering \& Suspension Systems
Cooperative Work Experience (008)
101Cooperative Education Exploration
TOTAL PROGRAM MINIMUM CREDIT HOURS
11125 CH
44
205 Fuel Management II
206 Fuel Management III ..... 4
Cooperative Work Experience (008)
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 27 CH
AUTOMOTIVE COLLISION TECHNOLOGY 133Advanced Certificate (A.C.) 44 Credit Hours (CH)
Required Program Core44 CH
Automotechnology (105)
101 Introduction to Automotive Technology ..... 4
104 Electrical Systems \& Power Accessories ..... 4
107 Automotive Body Welding ..... 4
109 Automotive Brakes ..... 4
117 Auto Body Reconstruction I ..... 3
118 Auto Body Repainting I ..... 3
119 Automotive Body Detailing ..... 5
209 Steering \& Suspension Systems ..... 4
217 Auto Reconstruction II ..... 3
218 Auto Body Repainting II ..... 3
220 Collision Estimating ..... 4
Cooperative Work Experience (008)101Cooperative Education Exploration3
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 44 CH
AUTOMOTIVE FUEL MANAGEMENT TECHNOLOGY 136Basic Certificate (B.C.) 27 Credit Hours (CH)
Required Program Core ..... 27 CH
Automotive Technology (105)
101 Introduction to Automotive Technology ..... 4
103 Engine Concepts ..... 4
104 Electrical Systems \& Power Accessories ..... 4
105 Fuel Management I ..... 4
101Cooperative Education Exploration ..... 3
AUTOMOTIVE MAINTENANCE 128
Basic Certificate (B.C.) 27 Credit Hours (CH)
Required Program Core ..... 27 CH
Automotive Technology (105)
101 Introduction to Automotive Technology ..... 4
104 Electrical Systems \& Power Accessories ..... 4
109 Automotive Brakes ..... 4
209 Steering and Suspension Systems ..... 4
211 Auto Service Management ..... 4
215 Automotive Temperature Control Systems ..... 4
Cooperative Work Experience (008)101Cooperative Education Exploration3
TOTAL PROGRAM MINIMUM CREDIT HOURS ..... 27 CH

# Programs of Study <br> Transportation Distribution and Logistics 

AUTOMOTIVE PARTS SPECIALIST 185
Basic Certificate (B.C.) 21 Credit Hours (CH)
Required Program Core
Automotive Technology (105)
101 Introduction to Automotive Technology
104 Electrical Systems \& Power Accessories
111 Automotive Parts Specialist I
112 Automotive Parts Specialist II
Cooperative Work Experience (008)
101 Cooperative Education Exploration
TOTAL PROGRAM MINIMUM CREDIT HOURS

LOGISTICS TRANSPORTATION DISTRIBUTION 713
Associate of Applied Science degree (A.A.S.)
63 Credit Hours (CH)
The field of Logistics encompasses a wide variety of career paths and employment opportunities. Career paths span across all aspects of the supply-chain spectrum from the supplier, to manufacturing, to distribution, and finally to the wholesaler/retailer. Occupations include warehouse management, equipment and material handling, inventory control, transportation supervisor, and distribution specialist. Logistics is increasingly recognized as a field that is vital to commerce and the economy. Logistics ensures that products are moved on time, in the proper condition, and for the right cost. This program targets entry-level employees with introductory classes in transportation and logistics. Articulation is in place with the Illinois Institute of Technology for those wishing to pursue a four-year degree.

## General Education

English (035)
101 Composition
Humanities (041)
201 General Course I Humanities OR
202 General Course II Humanities
Mathematics (045)
118 General Education Math
Social Science (088)
101 General Course I OR
102 General Course II Social Science
Speech (095)
101 Fundamentals of Speech Communication

16 CH

156 Warehousing \& Distribution
158 Purchasing
202 Labor/Business Law/Legal Compliance 3

4
212 Supervised Work-based Learning
TOTAL PROGRAM MINIMUM CREDIT HOURS $36 \mathbf{C H}$

## Programs of Study

Transportation Distribution and Logistics

\section*{PUBLIC PASSENGER VEHICLE TRAINING/TAXI 715 <br> Basic Certificate (B.C.) 6 Credit Hours (CH) <br> The Public Passenger Vehicle Training/Taxi Basic Certificate is designed to prepare individuals to become public chauffeurs in the City of Chicago and to take the Public Chauffeur License examination issued by the Chicago Department of Business Affairs \& Consumer Protection. This two week comprehensive training program covers Chicago Geography/Navigation, Departmental Rules and Regulations, Accessibility Training, and Professional Development. <br> | Required Program Core <br> 330BSCM | $\mathbf{6 C H}$ |
| :--- | :---: |
| 330100 Public Passenger Vehicle Training/Taxi | 6 |
| TOTAL PROGRAM MINIMUM CREDIT HOURS | $\mathbf{6 C H}$ |}

## SUPPLY CHAIN MANAGEMENT 385

Basic Certificate (B.C.) 16 Credit Hours (CH)
This program is designed for individuals interested in entrylevel employment in the warehousing and distribution industry. Students will review the current rules, regulations and requirements to which all warehousing and distribution centers adhere. Upon completion of this program students will understand the responsibilities of supply chain, material handlers, and freight inventory.

## Required Program Core

Business (030)
155 Working in the Warehousing Environment
156 Warehousing Workforce Skills
158 Warehousing \& Distribution Process
159 Warehousing Technology Skills
162 Representative Warehousing Skills
164 Warehousing \& Distribution Co-op 12 CH

Mathematics (045)
118 General Education Math
TOTAL PROGRAM MINIMUM CREDIT HOURS


# Programs of Study <br> Continuing Education 

## CONTINUING EDUCATION (CE)

The Continuing Education division offers short-term certificate programs and individual courses for students who want to improve their skills or start a new career. Programs and classes are designed for students with varying educational backgrounds and academic goals. Short-term programs and classes are available days, evenings, and on weekends. Continuing Education attracts part-time students who seek lifelong learning opportunities that include personal development, careeradvancement,jobreadiness,customized training for businesses, community organizations, public agencies and certificate training. Continuing Education can also work as a service provider at off-site locations.

Continuing Education short-term occupational certificates are approved by the Illinois Community College Board (ICCB). The related courses are applicable to the certificate program award but cannot be applied towards an Associate degree. Continuing Education also offers a series of "Special Interest" classes that do not carry ICCB approval. Special Interest classes are customized to meet emerging community trends and needs of the City of Chicago constituents. Classes range across such areas as financial planning, fine arts, computer training, developmental courses, music, photography, sign language, foreign language, aerobics, dance, mathematics and reading. Special Interest classes are also designed to meet the needs of children, in which "Summer Camps" and "College for Kids" programs are offered.
Students should consult with the Continuing Education department and/or obtain the course schedule published each academic term for the College where the student will take her/his courses. The CE course schedule can also be downloaded at http://www.ccc.edu.
Listed below are the Continuing Education ICCB approved short-term occupational certificate programs:

## A+ CERTIFIED COMPUTER TECHNICIAN 806 6 Credit Hours (CH)

The A+ Certification is an internationally recognized credential backed by major computer hardware and software companies. As a CompTIA Certified A+ Technician, graduates will be able to: analyze computer problems; disassemble any computer for rebuild or upgrade; design and operate a company's computer maintenance; recommend compatible hardware and software; and limit downtime and expensive repairs by providing immediate inhouse action.
For college offerings, see Program/Plan Cluster Grid, page 27 under "Information Technology".

## BANK TELLER (PROFESSIONAL) 861 <br> 17 Credit Hours (CH)

The Professional Bank Teller certificate program provides instruction in the fundamentals of check cashing, savings and loans, withdrawals, and specialized duties, such as accepting loan, credit, utility, and other payments. Tellers are responsibleformaintaining accurate records ofalltransactions and for preparing daily settlements of teller cash and proof transactions.

For college offerings, see Program/Plan Cluster Grid, page 24 under "Business, Management, Administration \& Finance".

## COMMERCIAL DRIVER TRAINING 876

12 Credit Hours (CH)
The Commercial Driver Training certificate program is designed for individuals with little or no commercial driving experience. The Commercial Driver Training program trains students for entry level employment as commercial motor vehicle operators. In partnership with the Illinois Department of Transportation, this program prepares students to obtain a Commercial Driver's License in the State of Illinois.

For college offerings, see Program/Plan Cluster Grid, page 28 under "Transportation, Distribution \& Logistics".

## COMMERICIAL PASSENGER DRIVER-CLASS/B 875 9 Credit Hours (CH)

The Commercial Passenger Driver Class B certificate program is designed for students with minimum experience who are trained to operate Class B passenger and nonpassenger motor vehicles. In partnership with the Illinois Department of Transportation, the program prepares students for a Class B Commercial Driver's License in the State of Illinois.

For college offerings, see Program/Plan Cluster Grid, page 28 under "Transportation, Distribution \& Logistics".

## COMPUTER LITERACY 852 <br> 7 Credit Hours (CH)

The Computer Literacy certificate program is a comprehensive hands-on introduction to personal computing, hardware, operating systems, general business and an overview of the Internet.

For college offerings, see Program/Plan Cluster Grid, page 27 under "Information Technology".

# Programs of Study <br> Continuing Education 

## COMPUTER NUMERIC CONTROL (CNC) TECHNICIAN 826

 15 Credit Hours (CH)The instructor certified CNC certificate program is for students interested in manufacturing in the area of Computer Numeric Control. By enrolling in 200 hours of training to become a machinist CNC set-up or operator, students will learn the safety and maintenance procedures of manufacturing; operate machinery such as drill press, lathes and mills; learn CNC machining such as writing G/M code, and run simulations of writing and running programs on the CNC machinery.
For college offerings, see Program/Plan Cluster Grid, page 27 under "Manufacturing".

## DEFENSIVE DRIVING/ATTITUDINAL 890 1 Credit Hour (CH)

The Defensive Driving Attitudinal certificate program comprises an eight-hour workshop which addresses the needs of those individuals who are repeat violators of traffic rules and regulations and newly licensed chauffeurs who have driven in the United States for at least three years. This training component is certified by the National Safety Council. Topics include the violation of rules and regulations, cultural sensitivity, anger management and conflict resolution as well as behavior modification approaches for effective customer service. Additionally, the training also reviews the Illinois Rules of the Road Handbook and prepares the inexperienced chauffeur driver for the road. Students will receive National Safety Council certificates of completion once they successfully complete the workshop program.

For college offerings, see Program/Plan Cluster Grid, page 28 under "Transportation, Distribution \& Logistics".

## DENTAL ASSISTANT 868

4 Credit Hours (CH)
In the Dental Assistant certificate program, students learn the comprehensive and varied duties of a dental assistant. This career choice will enable students to become part of the dental healthcare team. Students will learn office procedures, inventory, dental charting, and the basics of assisting the dentist. Topics will include the introduction to definition, cavity classification, instruments, oral surgery, procedures, and techniques, as well as basic tray setups, aseptic practices, and restoration methods.

## For college offerings, see Program/Plan Cluster Grid, page 25

 under "Health Science".
## DENTAL ASSISTING 810 <br> 3.5 Credit Hours (CH)

The Dental Assisting certificate program, consisting of 60 hours of training, prepares students for entry-level positions in one of the fastest growing health care professions. The program is designed to familiarize students with all areas of pre-clinical dental assisting and provide training in the professional skills required to function as an assistant in the dental practice. Topics covered in this program will include history of dentistry and dental assisting, introduction to the dental office, legal aspects of dentistry, policies and guidelines, introduction to oral anatomy, dental equipment, introduction to tooth structure, primary and permanent teeth, the oral cavity and related structures, proper patient positioning, dental hand-pieces, and sterilization. Dental Assistants provide quality preventative and corrective dental care under direct supervision of the Dentist or Dental Hygienist. The Dental Assistant is responsible for assisting dentists and dental hygienists with patient care as well as providing certain administrative support to the office. In addition to entry-level administrative jobs, the program is ideal for students interested in pursuing a formal Dental Hygienist program.
For college offerings, see Program/Plan Cluster Grid, page 25 under "Health Science".

## DIALYSIS TECHNICIAN 808 <br> 3 Credit Hours (CH)

The Dialysis Technician certificate program provides students with 50 hours of training to gain the knowledge and skills needed to perform the duties required of dialysis technicians, also called "hemodialysis" or "renal dialysis technicians". The functions of these technicians is to operate kidney dialysis machines which filter normal waste products and excess fluids from the blood of patients whose kidneys can no longer perform this function. They also perform a vital role as part of the dialysis team because they initiate, monitor, and discontinue dialysis treatments for the renal failure patient. Dialysis technicians are employed in hospitals, outpatient clinics, and other medical facilities and provide direct patient care within the dialysis unit under the direction of senior technicians, nurses, and doctors.

For college offerings, see Program/Plan Cluster Grid, page 25 under "Health Science".

# Programs of Study <br> Continuing Education 

## EKG TECHNICIAN 830 <br> 2 Credit Hours (CH)

This comprehensive 33-hour EKG Technician certificate program provides, hands-on training experience using an EKG arm. Students will also learn to take and interpret EKG readings. Topics cover anatomy and physiology of the heart, medical disease processes, medical terminology, medical ethics, legal aspects of patient contacts, and the use of the EKG monitor.
For college offerings, see Program/Plan Cluster Grid, page 25 under "Health Science".

## EMERGENCY MEDICAL TECHNICIAN (EMT) 867 9 Credit Hours (CH)

The EMT certificate program provides training to recognize the nature or extent of patients' condition, administer appropriate emergency medical care to stabilize their condition, and transport them safely to the proper medical facility. The curriculum follows the United States Department of Transportation (DOT) guidelines for EMT-B Training. Students receive appropriate in-class clinical, lecture, CPR training/ certification and ten (10) hours of hands-on in a hospital clinical setting.
For college offerings, see Program/Plan Cluster Grid, page 25 under "Health Science".

## EMERGENCY 911 DISPATCH 897

### 2.5 Credit Hours (CH)

The Emergency 911 Dispatch certificate program provides basic tools to help students seek and maintain an "Emergency Services Telecommunication" position with any public safety agency in the country (Police, Fire, EMS or Stand-alone Dispatch Center). Students will be exposed to samples of state-of-the-art computer equipment commonly used in many dispatch centers nationwide and will also learn call taking and dispatch skills as well as hear 911 calls.
For college offerings, see Program/Plan Cluster Grid, page 27 under "Law, Public Safety, Corrections \& Security".

FAMILY CHILD CARE BUSINESS 831
1.5 Credit Hours (CH)

The Family Child Care Business certificate program trains, advises, and prepares potential providers of the process involved in opening a quality home child care center. State licensing requirements, programming, staffing, health/ nutrition, and child safety are covered.
For college offerings, see Program/Plan Cluster Grid, page 25 under "Education \& Training".

## FOOD SERVICE SANITATION/RECERTIFICATION 891 1 Credit Hour (CH)

The Food Service Sanitation Recertification certificate program offers training in food service sanitation in three languages (English, Spanish, Chinese/Cantonese/Mandarin) and prepares personnel from food establishments for "Certification" and "Re-Certification" by the City of Chicago and the State of Illinois. This program also trains and certifies food vendors participating in outdoor summer festivals.

For college offerings, see Program/Plan Cluster Grid, page 26 under "Hospitality \& Culinary".

## FORK LIFT OPERATION AND SAFETY 848 2 Credit Hours (CH)

The Fork Lift Operation and Safety certificate program prepares students to become safe and effective forklift operators. Upon completion of the program, students will have working knowledge of the basic use of lift truck as well as the ability to safely inspect and operate lift trucks. The curriculum includes theory and practical training.

For college offerings, see Program/Plan Cluster Grid, page 28 under "Transportation, Distribution \& Logistics".

## HOMEMAKER/HOME HEALTH AIDE 895 4.5 Credit Hours (CH)

The Homemaker/Home Health Aide certificate program is a nationally accredited program through the National Homecare Council and the Foundation for Hospice and Home Care which prepares individuals to work as Certified Home Health Aides. This program provides students with the knowledge and skills in personal care to evaluate and address the psychological, emotional, and physical needs of the older patient. The curriculum includes 17 skills mandated by The National Homecare Council, including all elements of personal care, vital signs, body mechanics, safety measures, resident's rights, infection control, communication, and observation. This program is ideal for students interested in employability in the home healthcare field, individuals in career transition, and selected high school students interested in the healthcare field.
For college offerings, see Program/Plan Cluster Grid, page 26 under "Human Services".

# Programs of Study <br> Continuing Education 

## HORTICULTURE (SUSTAINABLE URBAN) 828 <br> 31 Credit Hours (CH)

The Sustainable Urban Horticulture certificate program is designed to provide students with cutting edge opportunities in the area of green technologies. Topics will include green roofs, xeriscaping, rain gardens, and other new emerging technologies in the green industry.

For college offerings, see Program/Plan Cluster Grid, page 23 under "Agriculture, Food \& Natural Resources."

## LIMOUSINE RESTRICTED CHAUFFEUR TRAINING 889 1 Credit Hour (CH)

The Limousine Restricted Chauffeur Training certificate program is an intensive one-day training that prepares individuals to become restricted public chauffeurs. Students participating in this training are eligible to become licensed to drive a livery/limousine. The training is offered four times each month and is intended to serve as a preparatory course to assist individuals with the successful completion of the restricted public chauffeur's license exam. Students learn current chauffeur rules and regulations as well as information on new cultural attractions, buildings, hospitals and hotels.

For college offerings, see Program/Plan Cluster Grid, page 28 under "Transportation, Distribution \& Logistics".

## MANUFACTURING (BASIC) 825

### 14.5 Credit Hours (CH)

In the Basic Manufacturing certificate program students learn to use machine tools to produce precision metal parts. In order to gain employment, students use their knowledge of the working properties of metals and their skill with machine tools to plan and carry out the operations needed to make machined products that meet precise specifications.
For college offerings, see Program/Plan Cluster Grid, page 27 under "Manufacturing".

## MEDICAL ADMINISTRATIVE ASSISTANT 809 3 Credit Hours (CH)

The Medical Administrative Assistant certificate program prepares students to function effectively in many administrative and clerical positions in the health care industry. Topics covered include keeping medical records, greeting patients, billing and clerical duties, scheduling appointments, arranging for admission to the hospital, laboratory services, checking supplies, documenting vital signs (e.g. blood pressures, pulse, respirations, and temperature), performing simple lab tests, preparing patients for examination, arranging equipment and instruments before an exam, assisting physicians during patient exams, explaining treatment, medications, diet schedules, and procedures to the patient.
For college offerings, see Program/Plan Cluster Grid, page 25 under "Health Science".

## MEDICAL BILLING \& CODING (COMPUTERIZED) 862 15 Credit Hours (CH)

The Computerized Medical Billing \& Coding certificate program curriculum includes courses in computer concepts, medical terminology, anatomy and physiology, and computerized medical billing and coding.
For college offerings, see Program/Plan Cluster Grid, page 25 under "Health Science".

## MEDICAL SECRETARY 870 <br> 20.5 Credit Hours

The Medical Secretary certificate program offers instruction in technical terminology and procedures, as well as how to transcribe dictation, prepare correspondence, and assist physicians or medical scientists with reports, speeches, articles, and conference proceedings. Students also learn to record simple medical histories, arrange for patients to be hospitalized, order supplies, and have knowledge of insurance rules, billing practices, and hospital or laboratory procedures.
For college offerings, see Program/Plan Cluster Grid, page 25 under "Health Science".

# Programs of Study <br> Continuing Education 

NURSING ASSISTANT (BASIC) 801<br>10 Credit Hours (CH)

This Illinois Department of Public Health approved certificate program for Basic Nursing Assistant (BNA) prepares students to work in the health care industry as a BNA. Students will be introduced to the discipline of nursing and the basic approaches to patient care. The role of the BNA as an assistant to the licensed nurse and member of the health care team is studied and practiced in the classroom, laboratory and clinical setting. Upon successful completion of all components of the program, the graduate must pass the State competency exam to become certified as a Basic Nursing Assistant in the State of Illinois.
For college offerings, see Program/Plan Cluster Grid, page 25 under "Health Science".

## OFFICE SPECIALIST 883 <br> 20 Credit Hours* (CH)

This program is designed to equip the student with the professional skills needed to become an invaluable member of an organization by learning how to keep an office running in an organized and efficient manner. The main focus of most administrative assistant training is on current office technology, usually Microsoft Office, and to develop skills in business correspondence, document preparation, reports, presentations, and spreadsheets.

Note: Pending ICCB approval for reinstatement as well as a proposed name change to "Professional Administrative Assistant."

## PARALEGAL 829

### 11.5 Credit Hours (CH)

The Paralegal certificate program is designed to prepare students for immediate employment. Students learn the necessary skills required to assist attorneys and law firms in need of paralegals or legal secretaries. Note: Students must successfully complete Part I and Part II to receive a basic certificate for Paralegal. Part I will provide students with an in-depth theoretical exploration of the legal field and basic tools to become a successful legal secretary or a paralegal. Students will also learn how to prepare standard legal documents and to understand standard legal processes, such as establishing contracts, the criminal law process, and courtroom behavior and procedures. Part II will provide students with the legal knowledge and writing skills to be successful in the world of corporate and family law. Students will also gain essential information to assist attorneys in document review and the preparation process.
For college offerings, see Program/Plan Cluster Grid, page 27 under "Law, Public Safety, Corrections \& Security".

## PERSONAL TRAINER PREPARATION 896 <br> 1.5 Credit Hours (CH)

The Personal Trainer Preparation certificate program provides the theoretical knowledge and practical skills required to prepare for the "American Council on Exercise" national certification exam on personal training. Topics include the guidelines for instructing safe, effective and purposeful exercises, conducting health and fitness assessments, and designing and implementing appropriate exercise programs.

For college offerings, see Program/Plan Cluster Grid, page 26 under "Human Services".

## PHARMACY TECHNICIAN 802 (8.5 Credit Hours)

The Pharmacy Technician certificate program provides comprehensive training that prepares students to enter the pharmacy field to work in hospitals, community, and retail pharmacies. Emphasis is placed on definitions of drugs by name and the reading and interpretation of medical prescriptions. Students will also learn I.V. flow rate, dosage calculations, drug compounding and dose conversions, inventory control and much more. Clinical hands-on experience will be included. The program is designed to prepare students national certification examinations.
For college offerings, see Program/Plan Cluster Grid, page 25 under "Health Science".

PHLEBOTOMY (ACCELERATED) 866
15 Credit Hours* (CH)
The Phlebotomy certificate program fulfills the training of the phlebotomist whose primary responsibility is to obtain blood specimens from clients for the purpose of laboratory analysis. The focus of this program is to provide the students with comprehensive skills needed to be able to perform vein puncture competently and safely. Lecture will include medical terminology, anatomy \& physiology, blood collection procedures, communication skills, and professionalism. Students will have hands-on laboratory practice sessions as well as clinical training to acquire the skills necessary to perform the required puncture methods.

[^6]For college offerings, see Program/Plan Cluster Grid, page 26 under "Health Science".

# Programs of Study <br> Continuing Education 

## REAL ESTATE BROKER 882

### 2.5 Credit Hours (CH)

In this comprehensive Real Estate Broker certificate program students will learn how to assist clients with buying and selling houses. Students will also learn how to navigate the process of getting a loan and procedures for purchasing and leasing.

For college offerings, see Program/Plan Cluster Grid, page 24 under "Business, Management, Administration \& Finance".

## REAL ESTATE SALES 812

### 2.5 Credit Hours (CH)

The Real Estate Sales certificate program prepares students for the "Real Estate Fundamental \& Transactions" real estate examination. Topics include real property, deeds, agreements of sale, mortgages, financing, evaluation and appraisal, leases and closing statements. Also included are sales contracts, closing statements, finance insurance and the Illinois "Real Estate Broker's and Salesman's Law".

For college offerings, see Program/Plan Cluster Grid, page 24 under "Business, Management, Administration \& Finance".

## SUPPLY CHAIN MANAGEMENT <br> (SCM) 832 (FUNDAMENTALS OF) <br> 4 Credit Hours (CH)

Students will gain the skills and knowledge needed to "green" an organization's supply chain through a preparation online training program. The curriculum provides students with the specialized knowledge to enable a company to achieve its environmental sustainability goals through global sourcing, material management, procurement/buying, transportation and logistics, and new product development. Although there are no specific prerequisites for this program, students should have basic keyboarding and computer skills and be comfortable navigating the Internet. They must also have an understanding of a word processing computer program (Microsoft Word recommended) and have emailing capabilities as well.

For college offerings, see Program/Plan Cluster Grid, page 28 under "Transportation, Distribution \& Logistics"

## UNARMED SECURITY GUARD 898 <br> 2 Credit Hours (CH)

In this comprehensive 20-hour Unarmed Security Guard certificate program, students will cover officer training as an introduction to public security and basic patrol tactics.

For college offerings, see Program/Plan Cluster Grid, page 27 under "Law, Public Safety, Corrections \& Security".

## WEB DESIGN 811

## 5 Credit Hours (CH)

In the Web Design certificate program, students explore the essential elements of web design and utilize practical activities and step-by-step procedures to design, build, and post a website. Students will create templates for page layout and learn techniques for fine-tuning and modifying prepackaged Web page development software. They will learn how to convert and scale artwork and photographs for Web publication and use tables and templates to organize layouts.

For college offerings, see Program/Plan Cluster Grid, page 27 under "Information Technology".

## WELDING (INDUSTRIAL TECHNOLOGY) 827 <br> 13 Credit Hours (CH)

The Industrial Welding Technology certificate program providesstudents with welding skills in a shop setting. Students are taught ARC, MIG, and TIG welding and all welding positions. Plasma and oxy-gas cutting are also taught. In addition, students examine job safety, ethics, and metallurgy. Graduates find entry-level employment as welders, solderers, and braziers. Upon program completion, students will receive Scaffold Safety Certification and the 10-Hour OSHA Construction Certification.

For college offerings, see Program/Plan Cluster Grid, page 23 under "Architecture \& Construction".


# Other Programs of Study <br> ADULT EDUCATION 

## ADULT EDUCATION (AE)

The Adult Education Program offers tuition-free courses in Adult Basic Education/General Educational Development (ABE/GED) in both English and Spanish, English as a Second Language (ESL), Citizenship Preparation, and workforce bridge courses, including employment readiness, sector specific bridge classes, career assessment and exploration. To enroll in adult education classes, students must be at least 18 years of age. Students who are 16 or 17 years of age may enroll if they are no longer enrolled in other secondary educational programs and have been officially released from their high school. Classes are offered in a variety of schedules and credit hour formats at each college. Classes are also available at several off-campus locations in each college's service area. Before enrolling in classes, all students must complete a placement and/or progress examination to determine student placement. For more information about classes and schedules please call the colleges listed below or visit the Adult Education website at: http://www.ccc.edu/student/AdultEducationPrograms.asp.

## Northside

Truman College 1145 W. Wilson Avenue Chicago, Illinois 60640
(773) 907-4350

## Central

Malcolm X College 1900 W. Van Buren Street Chicago, Illinois 60612
(312) 850-7300

## Southeast

Olive-Harvey College
10001 S. Woodlawn Avenue
Chicago, Illinois 60628
(773) 291-6690

## Northwest

Wright College
4300 N. Narragansett
Chicago, Illinois 60634
(773) 481-8821

## Southside

Kennedy-King College 6301 S. Halsted Street Chicago, Illinois 60621
(773) 602-5340

## Southwest

Daley College
7500 S. Pulaski Road Chicago, IL 60652
(773) 838-7803

The Adult Education Program offers the following classes:

## ADULT BASIC EDUCATION (ABE)

For students who have tested at the 1st through 8th grade levels, the Adult Basic Education (ABE) courses are a great way to improve basic skills.

## BEGINNING LEVEL COURSES

## Reading, Literacy, and Communication Skills:

Beginning ABE Literacy-The Beginning ABE Literacy reading course is the first course in the reading comprehension series for students who have little or no basic decoding or sight word skills. The student learns and reviews concepts and the skills to develop the ability to hear separate sounds in the spoken language (i.e., phonemic awareness). The student recognizes, reads, and writes letters and numbers. At the upper level of this course, the student is introduced to the connections between writing and reading. The student is also introduced to book aids (e.g., dictionary, thesaurus, encyclopedia, Atlas, internet, etc.). Pre-requisites: None.

Beginning Basic Education ABE - The Beginning Basic Education reading course reinforces basic vocabulary development for school, work, and life situations. The student predicts outcomes, draws conclusions, and understands main ideas. The student develops the ability to figure out new words, recognize high frequency and irregular words on sight. At the upper level of the course, the student applies decoding and cognitive skills, recognizes how text is organized to increase comprehension, and develops awareness of connections between writing and reading. Pre-requisites: Successful completion of the Beginning ABE Literacy reading course or Reading TABE Score of 2.0-3.9.

## Writing:

Beginning ABE Literacy - The Beginning ABE Literacy writing course is the first course in the beginning stage of the writing process for students. The student's focus is on writing simple sentences with appropriate word choices to form phrases and clauses. At the upper level of the course, the student constructs simple paragraphs, recognizes sentence fragments and correctly uses capitalization and ending punctuations. Finally, the student is introduced to the skills necessary to use book aids (e.g. dictionary, thesaurus, encyclopedia, Atlas, internet, etc.). Pre-requisites: None.

# Other Programs of Study <br> adult Education 


#### Abstract

Beginning Basic Education ABE - The Beginning Basic Education writing course enhances the writing process. The student constructs complete sentences, composes coherent paragraphs, recognizes sentence fragments, and uses correct capitalization and ending punctuations to produce basic writing samples. At the upper level of the course, the student begins to use correct tense endings, develops basic summarization, correctly uses plural forms of regular nouns and common irregular nouns, and begins to use appropriate language in formal and informal writing. The student continues to develop book aid skills. Prerequisites: Successful completion of the Beginning ABE Literacy writing course or Language TABE Score of 2.0-3.9.


## Mathematics:

Beginning ABE Literacy - The Beginning ABE Literacy mathematics course introduces the student to basic concepts, terms and symbols in mathematics. The student develops skills using basic computations in addition, subtraction, multiplication and division. The student also develops concepts to solve one-step word problems. At the upper level of this course, the student learns the difference between whole numbers, fractions, and decimals. Mathematical lessons reflect real-life situations. Pre-requisites: None.

Beginning Basic Education ABE - The Beginning Basic Education mathematics course reinforces the four math operations, introduce simple decimals, fractions and the ability to identify two and three-dimensional shapes. At the upper level of the course, the student uses number sense, placement value, and whole number computations to perform single-step word problems. The student also learns to apply vocabulary, mental math, basic calculator skills, and mathematical concepts in weights and measurements to solve real-life math problems. Pre-requisites: Successful completion of the Beginning ABE Literacy math course or Math TABE scores of 2.0-3.9.

## General Studies:

Beginning ABE Literacy - The Beginning ABE Literacy general studies course provides foundation in reading, writing, communication, and computation skills. At the upper level of the course, the student is able to read simple and compound sentences in a single paragraph, write simple notes, begin to correctly use basic grammar and demonstrate consistent use of basic punctuation. The student is also able to add and subtract three digit numbers, write multiplication tables through 12 , identify simple fractions and perform simple arithmetic operations. By the end of the course, the student is able to perform basic workplace competencies such as read simple directions, signs, maps, fill out simple forms requiring basic personal information, and complete simple job applications. Pre-requisites: None.

Beginning Basic Education ABE - The Beginning Basic Education general studies course strengthens fundamental reading, writing, and mathematical skills. The student is able to use grammar and demonstrate consistent use of punctuation, compose basic paragraphs, interpret short stories, identify and use basic mathematical symbols. At the upper level of the course, the student is able to read and comprehend text on familiar subjects, write simple paragraphs with main and supporting details on familiar topics, perform all four basic math operations using whole numbers up to three digits and identify and use basic mathematical symbols. By the end of the course, the student is able to demonstrate workplace competencies such as complete forms and applications, read simple graphs, charts, payroll stubs, take routine measurements, and write short reports to fellow workers. Pre-requisites: Successful completion of the Beginning ABE Literacy general studies course or TABE Reading, Math, and Language scores of $2.0-3.9$.

## Computer Literacy:

Beginning Computer Literacy - The Beginning Computer Literacy course introduces the use of technology to develop literacy skills.

## INTERMEDIATE LEVEL COURSES

## Reading, Literacy, and Communication Skills:

Low Intermediate Basic Education ABE-The Low Intermediate reading course reinforces reading skills. The student begins to identify and use vocabulary in the content areas (i.e. Language Arts, Science, Math, Social Studies, U.S. Civics, etc.) The student effectively applies strategies to construct meaning from a variety of topics while using various materials in new situations. At the upper level of the course, the student reviews the skills necessary for independent reading and effectively uses book aids. Pre-requisites: Successful completion of the Beginning Basic Education ABE reading course or Reading TABE Score of $4.0-5.9$.

High Intermediate Basic Education ABE - The High Intermediate reading course prepares the student to transition smoothly into the Low Adult Secondary reading course. The student interprets meaning from context clues, makes inferences, interprets figurative language and correctly applies comparing and contrasting strategies. The student also develops an understanding of plot, character, and motivation in stories and dramas while recognizing the author's viewpoint. At the upper level of the course, the student increases reading speed with fluency to become a more strategic test-taker. Pre-requisites: Successful completion of the Low Intermediate reading course or Reading TABE Score of $6.0-8.9$.

## Writing:

Low Intermediate Basic EducationABE-The Low Intermediate writing course teaches the student to recognize and apply spelling patterns, possessives, parts of speech, grammar and punctuation rules. The student develops composition skills to transition between paragraphs and topic sentences, gathers ideas, forms opinions, and responds in writing to stimuli (e.g., literature, music, art, images.) At the upper level of the course, the student correctly applies skills needed to recognize and use common spelling rules, suffixes and prefixes. Before exiting the course, the student is able to demonstrate basic summarization skills. Pre-requisites: Successful completion of the Beginning Basic Education ABE writing course or Language TABE Score of $4.0-5.9$

High Intermediate Basic Education ABE - The High Intermediate writing course prepares the student to smoothly transition into the Low Adult Secondary writing course. The student correctly applies the stages of the writing process to compose longer and more difficult academic writings. The student develops research techniques to collect information and opinions through interviews and observations to construct research and other professional academic reports. At the upper level of the course, the student is introduced to the correct use of quotes and indirect quotes in paraphrasing. Pre-requisites: Successful completion of the Low Intermediate writing course or Language TABE Score of $6.0-8.9$.

## Mathematics:

Low Intermediate Basic Education ABE - The Low Intermediate mathematics course assists the student in applying mathematical knowledge, critical thinking skills and vocabulary strategies to solve multi-step word problems dealing with symbols, dimensional shapes, pre-algebra, pregeometry, whole numbers, decimals and fractions. At the upper level of the course, the student develops the skills to interpret tables, charts, and graphs and applies knowledge of number skills, multiple-digit computation skills, mental math skills, and basic calculator skills in a variety of lessons that reflect real-life situations. Pre-requisites: Successful completion of the Beginning Basic Education ABE math course or Math TABE scores of 4.0-5.9

High Intermediate Basic Education ABE - The High Intermediate mathematics course prepares the student to transition smoothly into the Low Adult Secondary math course. The student develops test-taking skills, study skills, and job readiness skills. At the upper level of the course, the student applies vocabulary; mathematical concepts, and sound critical thinking skills to complete lessons that reflect real-life situations. The student also learns to use the four math operations to solve multi-step word problems, using ratios, probability, proportions, and estimations with and without the aid of the calculator. Pre-requisites: Successful completion of the Low Intermediate math course or Math TABE scores of $6.0-8.9$.

## General Studies:

Low Intermediate Basic Education ABE - The Low Intermediate general studies course strengthens the student's reading, writing, and mathematical skills. This course also introduces the student to literature, critical thinking, and beginning essay writing. At the upper level of the course, the student is able to read and write short essays on familiar topics, make minimal inferences, compare and contrast information, and demonstrate consistent use of basic punctuation. The student is also able to perform the four math operations with whole numbers and fractions, determine correct math operation for solving one and two-step word problems, and convert decimals and fractions. By the end of the course, the student is able to demonstrate workplace competencies such as follow multi-step diagrams, read simple procedural texts and employee handbooks, reconcile a bank statement, and follow written instructions and diagrams. Pre-requisites: Successful completion of the Beginning Basic Education ABE general studies course or TABE Reading, Math, and Language scores of $4.0-5.9$.

High Intermediate Basic Education ABE - The High Intermediate general studies course prepares the student to smoothly transition into the Adult Secondary Education general studies course by reinforcing the student's skills in reading comprehension, composition writing, and mathematics. Vocabulary, comprehension, and problem-solving are emphasized. At the upper level of the course, the student is able to identify spelling, punctuation, and grammatical errors, comprehend a variety of complex materials on common topics, listen to oral instructions and write an accurate description of them, write using a complex sentence structure, perform the four math functions with decimals, interpret and solve simple algebraic equations, use math in business transactions, and interpret and create tables and graphs. By the end of the course, the student is able to demonstrate workplace competencies such as read legal forms and manuals, follow multi-step directions, integrate information from texts, charts, and graphs, and perform jobs that require interpreting information from various sources. Pre-requisites: Successful completion of the Low Intermediate general studies course or TABE Reading, Math, and Language scores of $6.0-8.9$.
ABE Constitution - The Intermediate Constitution course is a competency-based course in American Government. The course maximizes preparation for the Public Law Exam 195 (U.S. Constitution). Instruction covers modern political and economic systems of government, the origins of the United States, and the federal system of government. Topics also include the Declaration of Independence, the American Flag, amendments to the constitution, political parties, the electoral process, and the role that public opinion and pressure groups play in American politics. The course concludes with an in-depth study of the three branches of the federal government, the U.S. and Illinois State Constitutions (TABE Reading 4.0-8.9).

## Computer Literacy:

Intermediate Computer Literacy - This course enhances student's literacy skills through the use of computer technology.

# OTHER Programs of STUDY <br> adult Education 

## SPANISH ADULT BASIC EDUCATION (ABE)

For students who have tested at the 1st through 8th grade levels, the Adult Basic Education (ABE) courses are a great way to improve basic skills.
Important Note: The TABE Pre and Post-tests must be given to all students enrolled in the Spanish ABE Program.

## BEGINNING LEVEL COURSES

## Reading, Literacy, and Communication Skills:

Beginning ABE Literacy - The Spanish Beginning ABE Literacy reading course is the first course in the reading comprehension series for students who have little or no basic decoding or sight word skills. The student learns and reviews concepts and the skills to develop the ability to hear separate sounds in the spoken language (i.e., phonemic awareness). The student recognizes, reads, and writes letters and numbers. At the upper level of this course, the student is introduced to the connections between writing and reading. The student is also introduced to book aids (e.g., dictionary, thesaurus, encyclopedia, Atlas, and the internet). Pre-requisites: None.

Beginning Basic Education ABE - The Spanish Beginning Basic Education reading course reinforces basic vocabulary development for school, work, and life situations. The student predicts outcomes, draws conclusions, and understands main ideas. The student develops the ability to figure out new words, recognize high frequency and irregular words on sight. At the upper level of the course, the student applies decoding and cognitive skills, recognizes howtextis organized to increase comprehension and develops awareness of connections between writing and reading. Pre-requisites: Successful completion of the Spanish Beginning ABE Literacy reading course or Reading TABE Score of 2.0-3.9.

## Spanish ABE Writing:

Beginning ABE Literacy - The Spanish Beginning ABE Literacy writing course is the first course in the beginning stage of the writing process for students. The student's focus is on writing simple sentences with appropriate word choices to form phrases and clauses. At the upper level of the course, the student constructs simple paragraphs, recognizes sentence fragments and correctly uses capitalization and ending punctuations. Finally, the student is introduced to the skills necessary to use book aids (e.g. dictionary, thesaurus, encyclopedia, Atlas, and the internet). Pre-requisites: None.

Beginning Basic Education ABE - The Spanish Beginning Basic Education writing course is designed to enhance the writing process. The student constructs complete sentences, composes coherent paragraphs, recognizes sentence fragments, and uses correct capitalization and ending punctuations to produce basic writing samples. At the upper level of the course, the student begins to use correct tense endings, develops basic summarization, correctly uses plural forms of regular nouns and common irregular nouns, and begins to use appropriate language in formal and informal writing. The student continues to develop book aid skills. Pre-requisites: Successful completion of the Spanish Beginning Basic Education ABE Literacy writing course or Language TABE Score of 2.0-3.9.

## Spanish ABE Mathematics:

BeginningABELiteracy-TheSpanishBeginningABE Literacy mathematics course introduces basic concepts, terms and symbols in mathematics. The student develops skills using basic computations in addition, subtraction, multiplication and division. The student also develops concepts to solve one-step word problems. At the upper level of this course, the student learns the difference between whole numbers, fractions, and decimals. Mathematical lessons reflect reallife situations. Pre-requisites: None.

Beginning Basic Education ABE - The Spanish Beginning Basic Education mathematics course is designed to reinforce the four math operations, introduce simple decimals, fractions and the ability to identify two and three-dimensional shapes. At the upper level of the course, the student uses number sense, placement value, and whole number computations to perform single-step word problems. The student also learns to apply vocabulary, mental math, basic calculator skills, and mathematical concepts in weights and measurements to solve real-life math problems. Pre-requisites: Successful completion of the Spanish Beginning ABE Literacy math course or Math TABE scores of $2.0-3.9$.

## Spanish ABE General Studies:

Beginning ABE Literacy - The Spanish Beginning ABE Literacy general studies course provides a foundation in reading, writing, communication, and computational skills. At the upper level of the course, the student is able to read simple and compound sentences in a single paragraph, write simple notes, begin to correctly use basic grammar and demonstrate consistent use of basic punctuation. The student is also able to add and subtract three digit numbers, write multiplication tables through 12, identify simple fractions and perform simple arithmetic operations. By the end of the course, the student is able to perform basic workplace competencies such as read simple directions, signs, maps, fill out simple forms requiring basic personal information, and complete simple job applications. Pre-requisites: None.

Beginning Basic Education ABE - The Spanish Beginning Basic Education general studies course strengthens fundamental reading, writing, and mathematical skills. The student is able to use grammar and demonstrate consistent use of punctuation, compose basic paragraphs, interpret short stories, identify and use basic mathematical symbols. At the upper level of the course, the student is able to read and comprehend text on familiar subjects, write simple paragraphs with main and supporting details on familiar topics, perform all four basic math operations using whole numbers up to three digits and identify and use basic mathematical symbols. By the end of the course, the student is able to demonstrate workplace competencies such as complete medical forms, order forms, and job applications, read simple graphs, labels, charts, payroll stubs, take routine measurements, and write short reports and messages to fellow workers. Pre-requisites: Successful completion of the Beginning ABE Literacy general studies course or TABE Reading, Math, and Language scores of 2.0 -3.9.

## INTERMEDIATE LEVEL COURSES

## Reading, Literacy, and Communication Skills:

Low Intermediate Basic Education ABE -The Spanish Low Intermediate Basic Education reading course reinforces reading skills. The student begins to identify and use vocabulary in the content areas (i.e. Language Arts, Science, Math, Social Studies, U.S. Civics, etc.) The student effectively applies strategies to construct meaning from a variety of topics while using various materials in new situations. At the upper level of the course, the student reviews the skills necessary for independent reading and effectively uses book aids. Pre-requisites: Successful completion of the Spanish Beginning Basic Education ABE reading course or Reading TABE Score of $4.0-5.9$.

High Intermediate Basic Education ABE - The Spanish High Intermediate Basic Education reading course prepares the student to transition smoothly into the Spanish Low Adult Secondary reading course. The student interprets meaning from context clues, makes inferences, interprets figurative language and correctly applies comparing and contrasting strategies. The student also develops an understanding of plot, character, and motivation in stories and dramas while recognizing the author's viewpoint. At the upper level of the course, the student increases reading speed with fluency to become a more strategic test-taker. Pre-requisites: Successful completion of the Spanish Low Intermediate reading course or Reading TABE Score of 6.0-8.9.

## Spanish ABE Writing:

Low Intermediate Basic Education ABE - The Spanish Low Intermediate Basic Education writing course is designed to teach the student to recognize and apply spelling patterns, possessives, parts of speech, grammar, and punctuation rules. The student develops composition skills to transition between paragraphs and topic sentences, gathers ideas, forms opinions, and responds in writing to stimuli (e.g., literature, music, art, and images). At the upper level of the course, the student correctly applies skills needed to recognize and use common spelling rules, suffixes and prefixes. Before exiting the course, the student is able to demonstrate basic summarization skills. Pre-requisites: Successful completion of the Spanish Beginning Basic Education ABE writing course or Language TABE Score of 4.0-5.9.

High Intermediate Basic Education ABE - The Spanish High Intermediate Basic Education writing course prepares the student to smoothly transition into the Spanish Low Adult Secondary writing course. The student correctly applies the stages of the writing process to compose longer and more difficult academic writings. The student develops research techniques to collect information and opinions through interviews and observations to construct research and other professional academic reports. At the upper level of the course, the student is introduced to the correct use of quotes and indirect quotes in paraphrasing. Pre-requisites: Successful completion of the Spanish Low Intermediate writing course or Language TABE Score of $6.0-8.9$.

## Spanish ABE Mathematics:

Low Intermediate Basic Education ABE - The Spanish Low Intermediate Basic Education mathematics course assists the student in applying mathematical knowledge, critical thinking skills and vocabulary strategies to solve multi-step word problems dealing with symbols, dimensional shapes, pre-algebra, pre-geometry, whole numbers, decimals and fractions. At the upper level of the course, the student develops the skills to interpret tables, charts, and graphs, and applies knowledge of number skills, multiple-digit computation skills, mental math skills, and basic calculator skills in a variety of lessons that reflect real-life situations. Pre-requisites: Successful completion of the Spanish Beginning Basic Education ABE math course or Math TABE scores of $4.0-5.9$.

## OTHER PROGRAMS OF STUDY <br> adult Education

High Intermediate Basic Education ABE - The Spanish High Intermediate Basic Education mathematics course prepares the student to transition smoothly into the Spanish Low Adult Secondary math course. The student develops testtaking skills, study skills, and job readiness skills. At the upper level of the course, the student applies vocabulary, mathematical concepts, and sound critical thinking skills to complete lessons that reflect real-life situations. The student also learns to use the four math operations to solve multistep word problems using ratios, probability, proportions, and estimations with and without the aid of the calculator. Pre-requisites: Successful completion of the Spanish Low Intermediate math course or Math TABE scores of 6.0-8.9.

## Spanish ABE General Studies:

Low Intermediate Basic Education ABE - The Spanish Low Intermediate Basic Education general studies course continues to strengthen reading, writing, and mathematical skills. This course also introduces the student to literature, critical thinking, and beginning essay writing. At the upper level of the course, the student is able to read and write short essays on familiar topics, make minimal inferences, compare and contrast information, and demonstrate consistent use of basic punctuation. The student is also able to perform the four math operations with whole numbers and fractions, determine correct math operation for solving one and two-step word problems, and convert decimals and fractions. By the end of the course, the student is able to demonstrate workplace competencies such as follow multi-step diagrams, read simple procedural texts and employee handbooks, reconcile a bank statement and follows written instructions and diagrams. Pre-requisites: Successful completion of the Spanish Beginning Basic Education ABE general studies course or TABE Reading, Math, and Language scores of $4.0-5.9$.

High Intermediate Basic Education ABE - The Spanish High Intermediate Basic Education general studies course prepares the student to smoothly transition into the Adult Secondary Education general studies course by reinforcing skills in reading comprehension, composition writing, and mathematics. Vocabulary, comprehension, and problemsolving are emphasized. At the upper level of the course, the student is able to identify spelling, punctuation, and grammatical errors, comprehend a variety of complex materials on common topics, listen to oral instructions and write an accurate description of them, write using a complex sentence structure, perform the four math functions with decimals, interpret and solve simple algebraic equations, use math in business transactions, and interpret and create tables and graphs. By the end of the course, the student is able to demonstrate workplace competencies such as read legal forms and manuals, follow multi-step directions, integrate information from texts, charts, and graphs, and perform jobs that require interpreting information from various sources. Pre-requisites: Successful completion of the Spanish Low Intermediate general studies course or TABE Reading, Math, and Language scores of $6.0-8.9$.

Spanish ABE Constitution - The ABE Spanish Constitution course is a competency-based course in American Government. The course maximizes preparation for the Public Law Exam 195 (U.S. Constitution). Instruction covers modern political and economic systems of government, the origins of the United States, and the federal system of government. Topics also include the Declaration of Independence, the American Flag, amendments to the constitution, political parties, the electoral process, and the role that public opinion and pressure groups play in American politics. The course concludes with an in-depth study of the three branches of the federal government, the U.S. and Illinois State Constitutions (TABE Reading 4.0-8.9).

# Other Programs of Study <br> AdUlt EdUCATION 

## ADULT SECONDARY EDUCATION/GENERAL EDUCATIONAL DEVELOPMENT (ASE/GED)

The General Educational Development (ASE/GED) courses prepare students to pass the GED Exam. Courses cover reading, writing, math, social studies, science and the Constitution. Students also learn test taking and study skills. Classes are offered in English and Spanish. The GED exam is administered through the Cook County GED Testing Program. Students interested in applying for a GED test date or for additional information on the GED test, should contact the Cook County GED Testing Center directly by calling 1-847-328-9795 or visiting their website at www. cookcountyged.org. The fee for the GED test is $\$ 50.00$; the GED test is approximately eight hours in length and may be taken over a two-day period.

## ASE/GED LEVEL COURSES

## Reading, Literacy, and Communication Skills:

Low Adult Secondary Education - The Low ASE reading course develops reading skills with relatively challenging technical and non-technical workplace, employment and academic-related materials. At the upper level of the course, the student applies critical thinking skills to a variety of more difficult documents. In addition, the student who has not previously passed the U.S. Civics test on the high school level will prepare to successfully pass the Civics test on the U.S. and Illinois Constitutions, Declaration of Independence and the U.S. flag before exiting the course. Pre-requisites: Successful completion of the High Intermediate reading course or Reading TABE Score of 9.0 - 10.9.
High Adult Secondary Education - The High ASE reading course, the student reviews, reinforces, and applies vocabulary enrichment, critical thinking skills, and independent reading competencies learned from previous levels. The student studies advanced content area texts, in addition to technical and non-technical workplace, employment and academic-related materials. At the upper level of the course, the student takes practice tests and analyzes the results in preparation to successfully pass the Official GED Language Arts, Reading Test. The coursework also prepares the student to make a seamless transition into career readiness and college-level reading courses. Pre-requisites: Successful completion of the Low ASE reading course or Reading TABE Score of 11.0 - 12.9.

## Writing:

Low Adult Secondary Education - The Low ASE writing course develops writing skills. The student composes using a complex sentence structure, writes correspondence that accurately reflects thoughts and composes cohesive and organized essays with few mechanical errors. The student develops proficiency in collecting information from various sources, effectively uses quotes, indirect quoting and paraphrasing. At the upper level of the course, the student applies strategies to analyze, compare, contrast, synthesize and discriminate information from multiple sources using the internet. Prerequisites: Successful completion of the High Intermediate writing course or Language TABE Score of 9.0 - 10.9 .

High Adult Secondary Education - The High ASE writing course enhances academic writing skills. When provided with a prompt, the student will apply the writing process to compose a well-written, five-paragraph essay that demonstrates well-focused main points, clear organization, specific development of ideas, refined sentence structure, use of appropriate word choices, relevant details and grammatical accuracy. Before exiting the course, the student is able to demonstrate skills needed to successfully pass the Official GED Language Arts, Writing Tests and smoothly transition into career readiness and college-level writing courses. Pre-requisites: Successful completion of the Low ASE writing course or Language TABE Score of 11.0-12.9.

## Mathematics:

Low Adult Secondary Education - The Low ASE mathematics course provides a foundation for college-level studies. The student demonstrates an understanding of mathematical concepts and operations by applying advanced strategies and critical thinking skills to solve multi-step word problems using integers, the number line, powers, square roots, scientific notations, algebraic equations, fractions, decimals, percents, geometry, statistics, proportions and ratios in mathematical lessons that reflect real-life situations with and without the aid of the calculator. Pre-requisites: Successful completion of the High Intermediate Math course or TABE scores of $9.0-10.9$.

High Adult Secondary Education - The High ASE mathematics course prepares the student to incorporate test-taking techniques to successfully pass the GED Math Tests and to make a seamless transition into career readiness and college-level math courses. The student reviews and applies advanced strategies to more difficult mathematical problems. As the student progresses through the course, the student applies the Pythagorean Theorem, utilizes formulas to solve multi-step word problems, recognizes number pattern series, calculates measures of central tendency, interprets and performs various math operations using graphs. Math calculations are performed with and without the aid of the calculator. Pre-requisites: Successful completion of the Low ASE Math course or Math TABE scores of 11.0-12.9.

# Other Programs of Study <br> adult Education 

## General Studies:

Low Adult Secondary Education - The Low ASE general studies course enhances academic reading, writing, mathematical, and critical thinking skills. At the upper level of this course, the student writes correspondence that accurately reflects thoughts and composes cohesive and organized essays with few mechanical errors, effectively uses quotes, indirect quoting and paraphrasing, and develops proficiency in collecting, comparing, contrasting, synthesizing, and discriminating information from multiple sources which includes use of the internet. The student also demonstrates an understanding of mathematical concepts and operations by applying advanced strategies, formulas, geometry principles, and critical thinking skills to solve multistep word problems. By the end of the course, the student is able to demonstrate workplace competencies such as read and comprehend technical information, complex manuals, and some college-level books, function in most job situations involving higher order thinking, operate complex machinery, and work productively. Pre-requisites: Successful completion of the High Intermediate general studies course or TABE Reading, Math, and Language scores of $9.0-10.9$.
High Adult Secondary Education - The High ASE general studies course enhances academic reading, writing, mathematical, and critical thinking skills. When provided with a prompt, the student will apply the writing process to compose a well-written, five-paragraph essay, apply advanced strategies to more difficult mathematical problems, and comprehend advanced content area texts, in addition to technical and non-technical workplace, employment and academic-related materials. Before exiting the course, the student is able to demonstrate skills needed to successfully pass the 5 -subject Official GED Test in Language Arts, Reading; Language Arts, Writing; Mathematics; Social Studies; and Science. The student is also able to smoothly transition into career readiness and college-level courses. Pre-requisites: Successful completion of the Low ASE general studies course or TABE Reading, Math and Language scores of $11.0-12.9$.

ASE/GED Constitution - The ASE/GED Constitution course is a secondary education competency-based course in American Government. The course is designed to maximize preparation for the Public Law Exam 195 (U.S. Constitution). Instruction covers modern political and economic systems of government, the origins of the United States, and the federal system of government. Topics also include the Declaration of Independence, the American Flag, amendments to the constitution, political parties, the electoral process, and the role that public opinion and pressure groups play in American politics. The course concludes with an in-depth study of the three branches of the federal government, the U.S. and Illinois State Constitutions (TABE Reading 9.0-12.9).

## Spanish Adult Secondary Education/General Education Development (ASE/GED)

## SPANISH GED LEVEL COURSES

## Reading, Literacy, and Communication Skills:

GED Reading - The lower level of the Spanish GED Reading course develops reading skills with relatively challenging technical and non-technical workplace, employment and academic-related materials. At the upper level of the course, the student applies critical thinking skills to a variety of more difficult documents. In addition, the student who has not previously passed the U.S. Civics test on the high school level will prepare to successfully pass the Civics test on the U.S. and Illinois Constitutions, Declaration of Independence and the U.S. flag before exiting the course. Pre-requisites: Successful completion of the High Intermediate Reading course or Reading TABE Score of $9.0-10.9$

GED Advanced Reading - The Spanish GED Advanced Reading course reviews, reinforces, and applies vocabulary enrichment, critical thinking skills, and independent reading competencies learned from previous levels. The student studies advanced content area texts, in addition to technical and non-technical workplace, employment and academicrelated materials. At the upper level of the course, the student takes practice tests and analyzes the results in preparation to successfully pass the Official GED Language Arts, Reading Test. The coursework also prepares the student to make a seamless transition into career readiness and college-level reading courses. Pre-requisites: Successful completion of the lower level of the Spanish GED Reading course or Reading TABE Score of 11.0-12.9.

## Spanish GED Writing:

GED Writing - The lower level of the Spanish GED Writing course develops academic writing skills. The student composes, using a complex sentence structure, writes correspondence that accurately reflects thoughts, and composes cohesive and organized essays with few mechanical errors. The student develops proficiency in collecting information from various sources, effectively uses quotes, indirect quoting and paraphrasing. At the upper level of the course, the student applies strategies to analyze, compare, contrast, synthesize and discriminate information from multiple sources using the internet. Pre-requisites: Successful completion of the High Intermediate Writing course or Language TABE Score of 9.0 - 10.9.

GED Advanced Writing - The Spanish GED Advanced Writing course enhances academic writing skills. When provided with a prompt, the student will apply the writing process to compose a well-written, five-paragraph essay that demonstrates well-focused main points, clear organization, specific development of ideas, refined sentence structure, use of appropriate word choices, relevant details and grammatical accuracy. Before exiting the course, the student is able to demonstrate skills needed to successfully pass the Official GED Language Arts, Writing Tests, and smoothly transition into career readiness and college-level writing courses. Pre-requisites: Successful completion of the lower level Spanish GED Writing course or Language TABE Score of 11.0-12.9.

## Spanish GED Mathematics:

GED Mathematics - The lower level of the Spanish GED Mathematics course provides a foundation for college-level studies. The student demonstrates an understanding of mathematical concepts and operations by applying advanced strategies and critical thinking skills to solve multi-step word problems using integers, the number line, powers, square roots, scientific notations, algebraic equations, fractions, decimals, percents, geometry, statistics, proportions and ratios in mathematical lessons that reflect real-life situations with and without the aid of the calculator. Pre-requisites: Successful completion of the High Intermediate Math course or TABE scores of 9.0-10.9.

GED Advanced Mathematics - The Spanish GED Advanced Mathematics course prepares the student to incorporate testtaking techniques to successfully pass the GED Math Tests and to make a seamless transition into career readiness and college-level math courses. The student reviews and applies advanced strategies to more difficult mathematical problems. As the student progresses through the course, the student applies the Pythagorean Theorem, utilizes formulas to solve multi-step word problems, recognizes number pattern series, calculates measures of central tendency, interprets and performs various math operations using graphs. Math calculations are performed with and without the aid of the calculator. Pre-requisites: Successful completion of the lower level Spanish GED Math course or Math TABE scores of 11.0 - 12.9.

## Spanish GED General Studies:

GED General Studies - The lower level Spanish General Studies course enhances academic reading, writing, mathematical, and critical thinking skills. At the upper level of this course, the student writes correspondence that accurately reflects thoughts and composes cohesive and organized essays with few mechanical errors, effectively uses quotes, indirect quoting and paraphrasing, and develops proficiency in collecting, comparing, contrasting, synthesizing, and discriminating information from multiple sources which includes use of the internet. The student also demonstrates an understanding of mathematical concepts and operations by applying advanced strategies, formulas, geometry principles, and critical thinking skills to solve multistep word problems. By the end of the course, the student is able to demonstrate workplace competencies such as read and comprehend technical information, complex manuals, and some college-level books, function in most job situations involving higher order thinking, operate complex machinery, and work productively. Pre-requisites: Successful completion of the High Intermediate General Studies course or TABE Reading, Math, and Language scores of 9.0 - 10.9.
GED Advanced General Studies-The Spanish GED Advanced General Studies course enhances academic reading, writing, mathematical, and critical thinking skills. When provided with a prompt, the student will apply the writing process to compose a well-written, five-paragraph essay, apply advanced strategies to more difficult mathematical problems, and comprehend advanced content area texts, in addition to technical and non-technical workplace, employment and academic-related materials. Before exiting the course, the student is able to demonstrate skills needed to successfully pass the 5 -subject Official GED Test in Language Arts, Reading; Language Arts, Writing; Mathematics; Social Studies; and Science. The student is also able to smoothly transition into career readiness and college-level courses. Pre-requisites: Successful completion of the lower level Spanish GED General Studies course or TABE Reading, Math and Language scores of $11.0-12.9$.
Spanish GED Constitution - The Spanish GED Constitution course is a secondary education competency-based course in American Government. The course is designed to maximize preparation for the Public Law Exam 195 (U.S. Constitution). Instruction covers modern political and economic systems of government, the origins of the United States, and the federal system of government. Topics also include the Declaration of Independence, the American Flag, amendments to the constitution, political parties, the electoral process, and the role that public opinion and pressure groups play in American politics. The course concludes with an in-depth study of the three branches of the federal government, the U.S. and Illinois State Constitutions (TABE Reading 9.0-12.9).

# OTHER Programs of Study <br> adult education 

## GENERAL EDUCATIONAL DEVELOPMENT (GED) ONLINE - WITH GED-I

Take GED preparation courses online with the GED-i program. With GED-i students can study for the GED on their own time from any internet connected computer with the assistance and support of an instructor. Registration is ongoing throughout the year at the six City College Adult Education Departments. To be eligible for GED-i, applicants must register on campus and score at 9.0 in reading and 7.0 in math on the TABE placement test.

## GEDI ASE/GED LEVEL

GED-i - The GED-i online test prep course is designed for a student who scores at the 7.0 level and above in math and at the 9.0 level and above in reading on the TABE. The GED-i online program provides the student with a solid study plan, helpful tips, strategies, and use of practice tests on the Internet to assist him/her in preparing for the 5-subject GED Official Test in Language Arts, Reading; Language Arts, Writing; Mathematics; Social Studies; and Science.

## ENGLISH AS A SECOND LANGUAGE (ESL)

The English as a Second Language courses teach English language and civics skills to foreign born non-native English speakers. Courses are offered at all skill levels and include speaking, listening, reading, writing, vocabulary development, grammar and civics.

## BEGINNING ESL LEVEL COURSES

Beginning ESL Literacy - The Beginning Literacy ESL course is designed for beginning students with less than six years of formal education in their native countries, students with little or no English proficiency, and students from countries where the written language does not utilize the Roman alphabet. The student attains sufficient language skills in listening, speaking, reading and writing in order to function in limited real-life situations. Course objectives include mastery of alphabets in lower and upper case letters, mastery of basic sight words, and recognizing numbers one to one hundred. The student also learns to say basic personal information (i.e. name, address, telephone numbers, etc.). As the student progresses in the course, the student builds literacy concepts such as directionality, spacing, and alignment.

Low Beginning ESL - The Low Beginning ESL course is designed for the student with limited knowledge of the English language. The course will emphasize the development of listening, speaking, reading, writing and life-skills, which include employment readiness using the English language. The course also emphasizes an introduction to basic vocabulary, grammar and writing simple sentences. The student also develops the skills to ask and answer simple questions, ask for clarification, state likes and dislikes, and read and comprehend a short passage of simple sentences. The student also attains better comprehension to be capable of understanding most conversations on familiar subject matters. At the upper level of the course, the student begins to read and write English for a variety of personal and workrelated purposes.

High Beginning ESL - The High Beginning ESL course is an extension of the skills learned previously in the Low Beginning ESL course. This course focuses on continued vocabulary development, reading, listening comprehension, speaking and pronunciation skills. The student is introduced to the use of a thesis statement and supportive elements. At the High Beginning ESL level, the student continues to write complete sentences and a standard paragraph that demonstrates organization of ideas. At the upper level of this course, the students begin to develop reading strategies, expand oral comprehension, and utilize the conventions of English grammar and punctuation with errors. Life skills, including employment readiness, are also emphasized.

## ESL Citizenship/Naturalization:

High Beginning - The Citizenship course is designed to prepare adults for the USA Citizenship and Naturalization examination. The content of the citizenship course includes English language, vocabulary and concepts that are associated with U.S. history, the Constitution, federal, state, and local government, and the naturalization process.

## Computer Literacy:

Beginning Computer Literacy - This course introduces the use of technology to develop literacy skills.

## INTERMEDIATE ESL LEVEL COURSES

Low Intermediate ESL - The Low Intermediate ESL course introduces academic language skills, including more emphasis on reading, writing, life-skills, and employment readiness. More complex grammar structures are introduced. As the student progresses through the ESL Low Intermediate course, he or she develops the skills to define vocabulary from context, identify topic sentences, and write narrative and descriptive paragraphs. At the upper level of the course, the student begins to develop the skills necessary to write clear, well-organized topic sentences, identify main ideas, identify details in short lectures and compose narrative, descriptive, and persuasive two-paragraph compositions.

High Intermediate ESL - The High Intermediate ESL course exposes the student to extensive listening, speaking, reading and writing using the English language. The student can accurately produce basic language structures in oral and written forms. In addition, the student is able to participate in simple conversations on unfamiliar topics, can read silently for brief periods of time, and identify the main idea and some supporting details from short reading and listening passages. At the upper level of the course, the student enhances writing skills, including development of paragraphs, incorporating topic sentences and some supporting details with fewer errors. Before exiting the High Intermediate ESL course, the student will be able to produce a three-paragraph composition. Life skills, including employment readiness, are also emphasized.

## ESL Citizenship/Naturalization:

Low Intermediate - The Citizenship course prepares adults for the USA Citizenship and Naturalization examination. The content of the citizenship course includes English language, vocabulary and concepts that are associated with U.S. history, the Constitution, federal, state, and local government, and the naturalization process.

High Intermediate - The Citizenship course prepares adults for the USA Citizenship and Naturalization examination. The content of the citizenship course includes English language, vocabulary and concepts that are associated with U.S. history, the Constitution, federal, state, and local government, and the naturalization process.

## Computer Literacy:

Intermediate Computer Literacy - This course enhances student's literacy skills through the use of computer technology.

## ADVANCED ESL LEVELS COURSES

Advanced ESL - The Advanced ESL course's primary objective is language immersion, emphasizing life-skills, including employment readiness and academic skills. At this level, emphasis is placed on the student's developing organization, sentence structure, and writing mechanics. As the student continues to progress, he or she composes one and one-half page narrative, descriptive, and persuasive compositions and compares and contrasts ideas in writing. At the upper level of the course, the student acquires competencies in English to use, interpret, and produce language and paralanguage, enabling him or her to move comfortably and confidently into a non-ESL environment academically, professionally, and socially. The primary emphasis of this Advanced ESL segment is to reinforce previously learned structures and skills and to prepare the student to implement learned skills for an academic career.

## ESL Citizenship/Naturalization:

Advanced ESL - The Citizenship course is designed to prepare adults for the USA Citizenship and Naturalization examination. The content of the citizenship course includes English language, vocabulary, and concepts that are associated with U.S. history, the Constitution, federal, state, and local government, and the naturalization process.

## COLLEGE ESL TRANSITION LEVEL COURSES

ESL College Transition - The ESL College Bridge Transition course prepares the Advanced-level ESL student to pass college-entrance examinations and develop the skills necessary for successful college-ready transition. In addition to enhancing language skills, the student focuses on developing study and test-taking skills. With extensive exposure to classroom instruction in English, the students expand on and reinforce skills acquired in the Advanced ESL course through a practicum. The student's competencies in English will be further expanded through presentations, written assignments, and enhanced study and test- taking skills. Prerequisite: High school or GED diploma.

## WORKFORCE PREPARATION

## ESL WORKFORCE PREPARATION COURSES

ESL Workforce Preparation courses familiarize and prepare ESL students for career and credit programs. The courses assist in developing the basic skills necessary to seek gainful employment.
Employment Readiness - The Employment Readiness course helps the ESL student develop language and other skills related to job search and self-marketing. The course also includes instruction in assessing the student's own employment skills, filling out job applications, and preparing for job interviews.

CareerAssessment and Exploration-The CareerAssessment and Exploration course engages the ESL student in the process of matching his or her experiences and skills with appropriate employment options and environments. The student will be acquainted with jobs and careers that are currently in demand for skilled workers, along with developing the language and vocabulary skills necessary for these jobs and careers.

# Other Programs of Study 

Adult Education


#### Abstract

Workforce Preparation - The Workforce Preparation course provides the student with the language, study, and career management skills necessary for successful completion of the college-level occupational and/or technical courses he or she is concurrently enrolled in, or is about to enroll in.


## ABE/GED WORKFORCE PREPARATION COURSES

ABE/GED Workforce Preparation courses familiarize and prepare students for career and credit programs. The courses assist in developing the basic skills necessary to seek gainful employment.

Employment Readiness - The Employment Readiness course helps the ESL student develop language and other skills related to job search and self-marketing. The course also includes instruction in assessing the student's own employment skills, filling out job applications, and preparing for job interviews.
CareerAssessment and Exploration - The Career Assessment and Exploration course engages the ESL student in the process of matching his or her experiences and skills with appropriate employment options and environments. The student will be acquainted with jobs and careers that are currently in demand for skilled workers, along with developing the language and vocabulary skills necessary for these jobs and careers.

Workforce Preparation - The Workforce Preparation course provides students with the language, study, and career management skills necessary for successful completion of the college-level occupational and/or technical courses they are concurrently enrolled in, or will register for in the future.

## CAREER BRIDGE FOR WORKFORCE PREPARATION

Career Bridge classes prepare students for entry into a specific career sector by teaching the vocabulary and basic concepts necessary for success in that field. These free courses can be taken alone or in combination with other Adult Education classes.

## Contextualized Healthcare Preparation Courses:

Language Arts Contextualized for Healthcare Career Exploration The course teaches oral and written communication skills in contexts that are relevant to healthcare occupations. It is part of a program of study developed: to prepare students to use oral and written communication as a tool in study, work, and life; to empower students to attain the education needed for a career in healthcare; and to introduce students to various healthcare career opportunities.

Contextualized Mathematics for Healthcare
The course teaches mathematical skills in contexts that are relevant to healthcare occupations. It is part of a program of study developed to prepare students to use these skills as tools in study, work, and life, to empower students to attain the education needed for a career in healthcare, and to introduce students to various healthcare career opportunities.

## Sector Bridge Workforce Courses:

Healthcare Bridge High Intermediate Language Arts
The Healthcare Bridge High Intermediate Language Arts course is designed to further develop basic skills in reading, writing, communication, readiness, and technology through healthcare-focused instruction. It is part of a sequence of courses that transition students from basic skill development into technical training, postsecondary education and finally into meaningful employment.

## Healthcare Bridge High Intermediate Mathematics

The Healthcare Bridge High Intermediate Mathematics course teaches mathematical skills in contexts that are relevant to healthcare occupations. It is part of a sequence of courses that transition students from basic skill development into technical training, postsecondary education and finally into meaningful employment.

## Healthcare Bridge Low Adult Secondary Education Language Arts

The Healthcare Bridge Low Adult Secondary Education Language Arts course further develops basic skills in reading, writing, communication, readiness, and technology through healthcare-focused instruction. It is part of a sequence of courses that transition students from basic skill development into technical training, postsecondary education and finally into meaningful employment.

## Healthcare Bridge Low Adult Secondary Education Mathematics

The Healthcare Bridge Low Adult Secondary Education Mathematics course teaches mathematical skills in contexts that are relevant to healthcare occupations. It is part of a sequence of courses that transition students from basic skill development into technical training, postsecondary education and finally into meaningful employment.

## Healthcare Bridge Transition High ASE Language Arts

The Healthcare Bridge Transition High ASE Language Arts course further develops skills in reading, writing, communication, readiness, and technology through healthcare-focused instruction. It is part of a sequence of courses that transition students from basic skill development into technical training, postsecondary education and finally into meaningful employment.

# Other Programs of Study <br> Adult Education 

Healthcare Bridge Transition High ASE Mathematics
The Healthcare Bridge Transition High ASE Mathematics course teaches mathematical skills in contexts that are relevant to healthcare occupations. It is part of a sequence of courses that transition students from basic skill development into technical training, postsecondary education, and finally into meaningful employment.

## Health Related Skills and Knowledge

The Health Related Skills and Knowledge course is designed to develop knowledge of the human body and practical healthcare skills. It is part of a sequence of courses that transition students from basic skill development, in a healthcare context, into technical training, postsecondary education and finally into meaningful employment.

## Vocational Adult Education Courses: <br> Introduction to Computers

The Introduction to Computers course covers computer basic architecture, principles of networking, fundamentals of operating systems, and internet concepts. It also provides an introduction to office productivity applications, such as word processing, spreadsheets, and presentation software. This course covers the skills outlined in all three sections of the IC3 Certification Exam.

## Introduction to File Management and <br> Office Productivity Software

The Introduction to File Management and Office Productivity Software course is taught as a continuation of the course "Introduction to Computers." This course covers intermediate topics in Operating Systems and office productivity applications, such as word processing, spreadsheets, and presentation software. This course covers the skills outlined in two sections of the IC3 Certification Exam.

## Introduction to A+Certification

The Introduction to A+Certification course is a preparation for the A+ certification course. It covers intermediate concepts in operating systems, computer configuration (software/ hardware), troubleshooting (software/hardware), studying techniques, and test-taking skills.

## Introduction to Flooring/Floor Covering

The Introduction to Flooring and Floor Covering course covers the basic skills used to install finish flooring. Course content includes: strip flooring, plank flooring, block flooring, resilient flooring tile, self-adhesive tiles, and ceramic floor tile.

## The following Vocational Courses are offered at

 Kennedy-King's Dawson Technical Institute:
## Introduction to Carpentry Maintenance

This course covers the basic skills used in building maintenance and repair. Course content includes using measuring tools and estimating costs.

## Introduction to Electrical Maintenance

The Introduction to Electrical Maintenance course covers basic electrical skills used in building maintenance and repair. Course content includes troubleshooting, testing, and repairing devices and controls. Use of electrical test meters and devices will also be covered in the course.

## Introduction to Plumbing Maintenance

The Introduction to Plumbing Maintenance course covers basic plumbing skills used in building maintenance and repairs. Course content includes troubleshooting, testing, repairing, and replacing faulty plumbing and fixtures.

## Alternative High School - Middle Colleges

Students between the ages of 16-21 who have dropped out of school but are interested in earning a high school diploma may take advantage of the Middle Colleges. Students may enroll at Olive-Harvey Middle College, Truman Middle College, or one of the alternative high schools funded through this program.

For more information about these programs contact the middle colleges or the program directly:

| Olive-Harvey Middle College | Truman Middle College |
| :--- | :--- |
| 10001 South Woodlawn Avenue | 1145 W. Wilsom Avenue |
| (773) 291-6518 | (773) $907-4840$ |

Academy of Scholastic Achievement

## 4651 West Madison Street

(773) 921-1315

Aspira, Inc. of Illinois - Antonia Pantoja H.S.
3121 N. Pulaski Road
(773) 252-0970

Association House of Chicago - El Cuatro Ano
1116 North Kedzie Avenue (773) 276-0084

## Austin Career Education Center <br> 5352 West Chicago Avenue <br> (773) 626-6988

Community Christian Academy
1231 South Pulaski Road
(773) 762-2272

Innovations High School
220 West 45th Place
(773) 538-0059

Lakeview Academy
716 West Addison Street
(773) 281-3065

Prologue, Inc.
1135 North Cleaver Street
(773) 935-9925

Sullivan House
8164 South Chicago Avenue
(773) 978-8680


## CENTER FOR DISTANCE LEARNING (CDL)

Students who need more options than a traditional classroom setting may enroll in courses offered by the Center for Distance Learning (CDL). CDL offers a wide variety of college credit courses, including courses in business, child development, computer science, economics, English, foreign languages, geography, geology, history, humanities, mathematics, philosophy, political science, psychology, science and sociology. Distance learning courses have the same prerequisites, academic requirements, credits, and transferability as courses taught in the traditional classroom format.

CDL offers two types of delivery modes: Teleweb and Web. In the distance-learning model, students learn through instructor-facilitated courses delivered by various media such as the Internet and television. Students log-on to the course web site, read required materials, submit homework assignments, view weekly television/video programs and take exams. Instructors and students communicate via e-mail and telephone. Some courses have live, required on-site conferences at designated times throughout the semester.

## Teleweb (TW)

Teleweb courses combine TV/video programs with course materials and interaction on the Internet. Students logon to the course's website to gain access to the course material, submit homework assignments, communicate with their instructor, and take exams. Students access the video component of the course by watching the programs on WYCC-WISE TV/Channel 20 or by renting DVDs or videocassettes.

## Web (WW)

Web courses take place primarily on the Internet. Students log-on to the course website to gain access to the course material, submit homework assignments, communicate with their instructor, and take exams. Courses may require students to take exams in a proctored setting.
For more information about distance learning courses and CDL, refer to the CDL brochure at http://cdl.ccc.edu/files/ cdl_brochure.pdf and visit our website at http://cdl.ccc.edu. Students may also contact us at cdl@ccc.edu or (312) 553-5975.

Students can register for any CDL course at any of the City Colleges of Chicago. Tuition is paid to, and grades and transcripts are issued by, the campus where registration took place. Upon registration, students are directed to the CDL website at http://cdl.ccc.edu for further instructions.

## CHILD DEVELOPMENT LAB CENTERS

City Colleges of Chicago operates Child Development Lab Centers for children 3-5 years of age at five campus locations offering full and part-time child care for students, staff, faculty and the community. Sliding fee scale and tuition subsidies are available for eligible families. Programs are available through Head Start at no cost for parents who qualify. All Centers are accredited or in the process of reaccreditation by the National Association for the Education for Young Children (NAEYC).

Children are cared for in a warm and nurturing learning environment by highly skilled and trained staff who provide a developmentally appropriate program that promotes the child's language, social-emotional, and physical development. Daily activities foster exploration and learning in reading, math and science, encouraging children to become enthusiastic life long learners. Parents are viewed as a critical partner in their child's learning and are encouraged to be actively involved, just as the program works to be responsive to family needs.

The Child Development Lab Centers also serve as Academic Lab Centers providing experiential learning opportunities including clinical observation and practicum for students in Child Development, Nursing and other programs of study.

Child Development Lab Centers are located in the following colleges: (Hours vary by location; please contact the Center directly for more information.)
Daley College - (773) 838-7562
Kennedy-King College - (773) 602-5481
Malcolm X College - (312) 850-7176
Olive Harvey College - (773) 291-6317
Truman College - (773) 907-4740

# Other Programs of Study 

Foundational Studies | Workforce institute

## FOUNDATIONAL STUDIES

Designed to help students in college, the Foundational Studies program offers students who score below the minimum standard score on the placement test the opportunity to study in a non-credit environment.

The program requires instruction in mathematics, reading and writing, with additional instruction in study skills. Because class size in this program is carefully monitored, students receive individual attention and have access to tutors.

In addition to tuition and fees, students also must purchase books and supplies. At the end of the semester, students retake the placement test. Scores on the placement test determine at which level the student is prepared or if the student is academically eligible to enter the credit program.

## WORKFORCE INSTITUTE

The mission of the Workforce Institute is to design, develop, and deliver high quality training programs and services to businesses and the community. The Institute achieves its mission by identifying and addressing the ever changing needs of industries, employers, and their workforce. The goal of the Workforce Institute is to be the preferred, in-primary provider of training and educational services of quality and value for businesses, industry, and government.

The Workforce Institute brings workforce development training into the workplace, which helps Chicagoland businesses grow through employee development. The Institute provides companies with the solutions necessary for a successful future. Incumbent and entry level workers learn outside of the traditional classroom through innovative delivery systems and a hands-on approach.

For more information visit the Workforce institute website at: http://www.cccworkforceinstitute.com.

## Customized Training for Business and Industry

The City Colleges of Chicago workforce training branch for local businesses and industries has been successfully instructing students for over 10 years. Each college's Business and Industry Service Division is now combined into the Workforce Institute, operated by Harold Washington College, which continues to provide quality, affordable training programs tailored specifically to the needs of Chicago companies and organizations.

## Our customized training includes, but is not limited to:

- Business and Professional Writing
- Computed Numerically Controlled (CNC)
- English as a Second Language (ESL)
- External \& Internal Customer Service
- Industry Standard Certifications: NIMS, AWS, OSHA and More
- LEAN Enterprise Coaching and Mentoring
- Microsoft Suite
- Non-Profit Board Development and Improvement
- Six Sigma Development and Implementation
- Succession and Strategic Planning
- Time and Meeting Management
- Website Creation and Maintenance


## Industries and Organizations that have accessed Workforce Institute resources include:

- American Bar Association
- Blue Cross Blue Shield
- Chicago Department of Planning \& Development
- Chicago Public Library
- Club Quarters
- Commonwealth Edison
- Freedman Seating
- Instituto del Progreso Latino
- Midwest Metal Forming
- Northwestern Memorial Hospital
- Solo Cup Company
- S \& C Electric
- University of Chicago Hospital Academy
- Vienna Beef, Ltd.
- YMCA of the USA



## Course Descriptions

## Department Prefix Codes

| PSSA ALPHA CODE | TITLE | ICCB NUMERIC CODE |
| :---: | :---: | :---: |
| ABE GED | ABE GED | 0170 |
| AFRO AM | African American Studies | 0117 |
| AIR CON | Air Conditioning | 0094 |
| ANTHRO | Anthropology | 0081 |
| ARABIC | Arabic | 0144 |
| ARCHITC | Architecture | 0005 |
| ART | Art | 0010 |
| ASTROMY | Astronomy | 0071 |
| AUTOTECH | Automotive Technology | 0105 |
| BIOLOGY | Biology | 0023 |
| 330BKPS | Baking \& Pastry | 0330 |
| BOTANY | Botany | 0025 |
| BRVC175 | Bridge Vocational | 0175 |
| 330BSCM | Business and Commercial TechTC1 | 0330 |
| 430BSCM | Business and Commercial Tech TC6 | 0430 |
| BUSINES | Business | 0030 |
| CAD TECH | CAD Technology | 0049 |
| CE BSMT | CE Business Management | 0502 |
| CE HECN | CE Home Economics | 0506 |
| CE HLTH | CE Health | 0500 |
| CE TRDE | CE Trade/Industrial/Trans | 0504 |
| CE013 | CE013 | 0013 |
| CE014 | CE014 | 0014 |
| CE015 | CE015 | 0015 |
| CHEM | Chemistry | 0073 |
| CHINESE | Chinese | 0141 |
| CHLD DV | Child Development | 0090 |
| CIS | Computer Information Systems | 0032 |
| CLN LAB | Clinical Laboratory Technology | 0019 |
| 432CMGT | Construction Management | 0432 |
| 432CNMT | Construction Materials Technician | 0432 |
| CMMEDIA | Communication Media | 0004 |
| COMPSFI | Computer Security and Forensic Investigation | 0162 |
| COOP EX | Cooperative Work Experience | 0008 |
| CRM JUS | Criminal Justice | 0080 |
| 330CUL | Culinary | 0330 |
| DENTHYG | Dental Hygiene | 0100 |
| DIAGSON | Diagnostic Medical Sonography | 0020 |
| DIET TC | Dietetic Technician | 0012 |
| DMD | Digital Multimedia | 0138 |
| ECON | Economics | 0082 |
| EDUC | Education | 0083 |
| ELECTRN | Electronics | 0033 |
| 432ELEV | Elevator | 0432 |
| EMT | Emergency Medical Technician | 0120 |
| ENGLISH | English | 0035 |

## Course Descriptions

Department Prefix Codes


## Course Descriptions

## Department Prefix Codes

| PSSA ALPHA CODE | TITLE | ICCB NUMERIC CODE |
| :---: | :---: | :---: |
| MENHLTH | Mental Health | 0118 |
| 340MFGT | Manufacturing | 0340 |
| MOR SCI | Mortuary Science | 0128 |
| MUSIC | Music | 0060 |
| NET TEC | Networking Technologies | 0165 |
| NURSING | Nursing | 0063 |
| OCEAN | Oceanography | 0070 |
| OPH TC | Ophthalmic Technology | 0167 |
| OTA | Occupational Therapy Assistant | 0122 |
| 432PDT | Painting \& Decorating | 0432 |
| PHAR TC | Pharmacy Technology | 0062 |
| PHARM | Pharmacology | 0028 |
| PHIL | Philosophy | 0043 |
| PHLEB | Phlebotomy | 0113 |
| PHY AST | Physician's Assistant | 0129 |
| PHY SCI | Physical Science | 0076 |
| PHYS ED | Physical Education | 0065 |
| PHYSICS | Physics | 0077 |
| POL SCI | Political Science | 0086 |
| POLISH | Polish | 0046 |
| 340PRTE | Process Technology | 0340 |
| PS REHB | Psychiatric Rehabilitation | 0134 |
| PSYCH | Psychology | 0087 |
| PT KAPPA | Phi Theta Kappa | 0131 |
| PUB SRV | Public Service | 0069 |
| RADIOGR | Radiography | 0021 |
| READING | Reading | 0037 |
| RELIGN | Comparative Religion | 0133 |
| REN TC | Renal Technology/ Nephrology | 0018 |
| RESP TC | Respiratory Therapy | 0061 |
| SOC | Sociology | 0089 |
| SOC SCI | Social Science | 0088 |
| SOC SER | Social Service | 0091 |
| SPANISH | Spanish | 0057 |
| SPEECH | Speech | 0095 |
| SURG TC | Surgical Technology | 0016 |
| 330TECH | Technology | 0330 |
| 332TECH | Technology | 0332 |
| THR ART | Theater Art | 0099 |
| 330TRNS | Logistic/Transportation/Distribution | 0330 |
| VIS COM | Visual Communications | 0009 |
| ZOOLOGY | Zoology | 0029 |

## COURSE DESCRIPTIONS

[AFRO AM] AFRICAN-AMERICAN STUDIES (117)

## AFRO-AMERICAN STUDIES 101

Introduction to African-American Studies
Survey of African-American Studies from an inter-disciplinary perspective; team-taught course utilizing expertise of AfricanAmerican Studies staff, embraces five basic categories of the African-Studies program/plan. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## AFRO-AMERICAN STUDIES 214

Hip Hop: Culture and Politics
The political significance, globalization, and history of HipHop will be examined. Four of the multitude of musical permutations of American Hip-Hop (Rap, consciousness / social awareness, gangsta rap, and commercial hip-hop) and their relative/ potential impact will be outlined. The materials/ social culture that has come to be associated with Hip-Hop will be the primary focus. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of English 101, and African American Studies 101 with a grade of C or better.
150 minutes per week. 3 credit hours.

## [AIR CON] AIR CONDITIONING (094)

## AIR CONDITIONING 101

Introduction Air Conditioning I
Fundamentals of heat and measurement; intensity, quantity, and modes of flow; factors of comfort studied and explored in relation to design of a system in connection with the function of that system. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## AIR CONDITIONING 102

## Introduction Air Conditioning II

Refrigeration, its theory, systems, components, and control as applied to air conditioning; study of refrigeration equipment, including function, selection, properinstallation, maintenance, and service. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## AIR CONDITIONING 103

## Duct Design and Layout

Conventional low velocity duct design; high velocity air distribution design and systems using sophisticated design techniques; layout techniques. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Air Conditioning 101, and Air Conditioning 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## AIR CONDITIONING 104

Equipment and Systems Controls
Pneumatic, electric, electronic controls, and control systems; selection and design of control systems. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## AIR CONDITIONING 105

Owner-Contractor Management
Fundamentals of management techniques for air conditioning dealers, contractors, and entrepreneurs. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## AIR CONDITIONING 106

## Sheet Metal I

Fabrication and installation of ducts used in air conditioning, ventilation and heating systems. Writing assignments, as appropriate to the discipline, are part of the course. 2 lecture and 2 lab hours per week. 3 credit hours.

## AIR CONDITIONING 107

Welding I
Techniques of welding and cutting different metals under a variety of conditions. Students will learn to weld, butt, edge, lap and fellet joints. Oxy-acetylene, oxy-propane, and carbon arc methods are employed. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## AIR CONDITIONING 120

## Introductory Laboratory

Shop and laboratory safety, use of hand tools for air conditioning, refrigeration and heating, use of meters, instruments, and gauges. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## AIR CONDITIONING 121

## Advanced Laboratory

Covers meters, instruments, and troubleshooting. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## AIR CONDITIONING 150

## Introduction to Refrigeration

Servicing, installation, reinstallation, warranty, and troubleshooting of home and commercial systems. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## AIR CONDITIONING 151

## Commercial Refrigeration

Selection, maintenance, installation of commercial refrigeration. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite:Air Conditioning 150.

150 minutes per week. 3 credit hours.

## AIR CONDITIONING 155

## Refrigeration Laboratory

Gauges, meters, and troubleshooting. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## AIR CONDITIONING 156

## Domestic Refrigeration Laboratory

Domestic and hermetic servicing. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## AIR CONDITIONING 157

Analysis Laboratory
Analysis of domestic and commercial hermetic systems; mechanical and electrical servicing. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## AIR CONDITIONING 158

Commercial Refrigeration Laboratory
Installation of components and complete systems; service and maintenance of those components and systems. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## AIR CONDITIONING 160

Introduction to Principles of Heating
Warm air systems, hot water systems, steam systems, gas fuel, oil fuel, and coal fuel at both residential and commercial levels; control systems and their installation, maintenance, service; and sub-electrical systems and their service. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## AIR CONDITIONING 165

Heating Laboratory
General study of domestic and commercial systems. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## AIR CONDITIONING 204

Advanced Control Systems
Theory, maintenance, and repair of advanced electrical, mechanical and electronic controls and control systems. Design techniques of control systems explored. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Air Conditioning 104.
2 lecture and 2 lab hours per week. 3 credit hours.

## [ANTHRO] ANTHROPOLOGY (081)

## ANTHROPOLOGY 201

Introduction to Biological and

## Cultural Evolution of Humans

Survey and analysis of the fundamentals of prehistoric archaeology, fossil primates and primate evolution, primate behavior, human genetics and the variations of human populations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ANTHROPOLOGY 202

Cultural Anthropology
Comparative study of human societies and cultures of the world; cross-cultural investigation of social organization and political, economic, religious and family systems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ANTHROPOLOGY 210

## North American Archaeology

Prehistoric cultural evolution in North America, including the first arrival of people, distribution, beginnings of settled life and formation of political-religious states; prehistory of Eastern and Western United States and Eastern, Central and Southern Mexico until arrival of Europeans. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## [ARABIC] ARABIC (144)

## ARABIC 101

## Arabic for Beginners I

Introduction to Arabic language with emphasis on language of everyday conversation. Focus is on alphabet, vocabulary and structure needed for elementary speaking, listening, and reading. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 100, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## ARABIC 102

Arabic for Beginners II
Introduction to Arabic language with emphasis on language of everyday conversation. Focus is on alphabet, vocabulary and structure needed for elementary speaking, listening, reading and translating. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of $C$ or better in Arabic 101, passing the Placement Test, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## ARABIC 103

Intermediate Arabic I
Introduction to Arabic language with emphasis on language of everyday conversation. Focus is on alphabet, vocabulary and structure needed for elementary speaking, listening, reading and translating. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Arabic 102 with a grade of C or better, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## ARABIC 104

## Intermediate Arabic II

Introduction to Arabic language with emphasis on language of everyday conversation. Focus is on alphabet, vocabulary and structure needed for elementary speaking, listening, reading and translating. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Arabic 103 with a grade of C or better, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## [ARCHITC] ARCHITECTURE (005)

## ARCHITECTURE 104

History of Architecture I
The study of the development of early architecture through the mid-18th century. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ARCHITECTURE 105

History of Architecture II
The study of architecture since the mid-18th century. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ARCHITECTURE 115 <br> Architectural Communications

Blueprint Reading - Study of contract documents for building industry, interpretation and interrelating of floor plans, elevations, sections; analysis of construction details, techniques and procedures. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ARCHITECTURE 121

## Architectural Drawing I

Introduction to techniques of graphic expression, emphasis on using graphic means for communication. Writing assignments, as appropriate to the discipline, are part of the course.
3 lecture and 2 lab hours per week. 4 credit hours.

## ARCHITECTURE 122

## Architectural Drawing II

Continuation of Architecture 121. Emphasis on developing skills in shading, proportion, pencil, and introduction to pictorial and other rendering techniques. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Architecture 121, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## ARCHITECTURE 123 <br> Architectural Drawing III

Continuation of Architecture 122. Emphasis on developing skills in pictorial and perspective drawing and sketching, color, form, and presentation skills. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite:Architecture 121, orArchitecture 122, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## Course Descriptions


#### Abstract

ARCHITECTURE 166 Concepts of Planning In-depth examination of criteria which influence architecture; programming, site analysis, mechanical and structural considerations; applications of delineation techniques; examination of philosophy of significant architects and their work. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson. 4 lecture and 2 lab hours per week. 5 credit hours.


## ARCHITECTURE 170

Computer-Aided Design for Architectural Drafting Tech. Introduction to design and drafting techniques using computer-aided design (CAD) systems; use of basic command structures, keyboard and menu tablets; text, dimensioning and pen and layer selection. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Architecture 121, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## ARCHITECTURE 171

Computer-Aided Design II for Architectural Drafting Tech. Intermediate drafting and design techniques using computeraided design (CAD) systems; dimensioning and text, 3-D geometric constructs, advanced editing techniques, file handling, and plotter utilization. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Architecture 170, or CAD Technology 170.
2 lecture and 2 lab hours per week. 3 credit hours.

## ARCHITECTURE 172

Computer-Aided Design III for Architectural Drafting Tech.
Advanced drafting and design techniques using computeraided design/drafting (CAD) programs; techniques of file handling, 3D drawing, solid modeling and rendering. Hardware and software requirements will be discussed. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Architecture 171, and CAD Technology 171, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## ARCHITECTURE 173

## Architecture-CAD with Third Party Applications

Introduction to third party programs used to develop architectural designs and construction documents via computer-aided design (CAD). Add-on programming to the base Drafting package AutoCAD. The student will have hands-experience with automated architectural programs that streamline management of file handling and the basic command structure. Utilization of comprehensive library symbols with smart features. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Architecture 171.
2 lecture and 2 lab hours per week. 3 credit hours.

## ARCHITECTURE 174

Computer Aided Design V for Architectural Drafting
Introduction to Third Party programs used to develop architectural designs and construction documents via computer-aided design (add on program to the base drafting package AutoCAD). Students will have experience with 3-D studio. This course will include three-dimensional modeling with complete rendering. The model will include texture of materials, various lighting schemes with shade and shadow. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Architecture 172, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## ARCHITECTURE 202

## General Construction

Study of materials used in residential building construction, their growth or manufacture, preparation and application; emphasis on frame and masonry construction types; working drawings and structural details. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Architecture 121, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## ARCHITECTURE 204

General Construction, Advanced
Continuation of Architecture 202. Emphasis on advanced structural detailing and working drawings. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Architecture 202, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## ARCHITECTURE 266

Architectural Planning
Application of planning concepts to basic architectural problems through development of selected design projects emphasizing relation of form to function; project presentation will employ models and pictorial rendering techniques in various media; current architectural thought explored through examples of various building types. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Architecture 166, or Consent of Department Chairperson.
4 lecture and 2 lab hours per week. 5 credit hours.

## COURSE DESCRIPTIONS

## [ART] ART (010)

## ART 103

## Art Appreciation

Appreciation of art works taken from all cultures and periods. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ART 115

## Photography

Basic principles of black and white photography. 35 mm cameras, exposure, development and printing processes, composition and presentation. Writing assignments, as appropriate to the discipline, are part of the course.
6 lab/studio hours per week. 3 credit hours, or
1 lecture and 2 lab hours per week. 2 credit hours

## ART 116

## Advanced Photography

Advancedtechniquesindevelopmentandprinting.Introduction to other formats. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 115, or Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## ART 117

## Beginning Color Photography

Introduction to techniques, art and theory of color photography; printing from color negatives and/or transparencies, developing color negatives and/or transparencies; characteristics of different color film types, lighting for color photography; covers color theory and use of color in composition. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 115, and Art 116, or Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## ART 118

## Cinematography I

Fundamentals of film making; editing, photography, and sound; basic and experimental uses of the camera; student shoots and edits film, adds sound. Laboratory and field trips. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## ART 119

## Cinematography II

Continuation of Cinematography I. Laboratory and field trips. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 118.
1 lecture and 2 lab hours per week. 2 credit hours.


#### Abstract

ART 126 Printmaking I Processes of lithography and relief printmaking; includes line, shape, texture, value, and color in stone lithography, wood, linoleum printmaking. Writing assignments, as appropriate to the discipline, are part of the course. 6 lab/studio hours per week. 3 credit hours.


## ART 127

## Printmaking II

Processes of intaglio, dry point, and screen printmaking; includes line, shape, texture, value and color in printmaking process. Writing assignments, as appropriate to the discipline, are part of the course.
6 lab/studio hours per week. 3 credit hours.

## ART 130 <br> African-American Art

Survey of African-American art over last 150 years; covers African-American crafts and sculpture during the 19th Century; realistic painters of early 20th Century; cubistic and abstractionist influences on painting and sculpture; non-revolutionary artists such as Charles White, Henry O. Tanner, Aaron Douglas, and Hughie Lee-Smith. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ART 131

## General Drawing

Still-life, landscape, and human figure; experimentation with various media. Writing assignments, as appropriate to the discipline, are part of the course.
6 lab/studio hours per week. 3 credit hours.
ART 132
Advance General Drawing
This course builds on and refines the experiences of Art 131 focusing on a variety of color media. Emphasis is on invention and formal concerns. Explorations into abstraction, non-objective, and fabricated image making are covered in this class. Course includes vocabulary development, critical analysis activities, and reference to historic models of drawing. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 131.
6 lab/studio hours per week. 3 credit hours.

## COURSE DESCRIPTIONS

## ART 141

Introduction to the Visual Arts
Practical application of fundamentals of the visual arts. Includes study of line, texture, color, shape, and volume in various media. Recommended for pre-teachers. Writing assignments, as appropriate to the discipline, are part of the course.
6 lab/studio hours per week. 3 credit hours, or
1 lecture and 2 lab hours per week. 2 credit hours.

## ART 142

## Figure Draw and Composition

Study of the human figure in action and still poses; rapid sketching, long poses, memory work, and portraiture. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 131, or Consent of Department Chairperson.
6 lab/studio hours per week. 3 credit hours.

## ART 143

## Advanced Figure Drawing

Development of skills. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 142. $6 \mathrm{lab} / \mathrm{studio}$ hours per week. 3 credit hours.

## ART 144

## Two Dimensional Design

A studio course exploring the fundamentals of the formal systems and basic elements of visual organization through two-dimensional design principles and theories using a variety of media. Fundamental design and experimentation in relationship to line, shape, textures, and color. Writing assignments, as appropriate to the discipline, are part of the course.
$6 \mathrm{lab} / \mathrm{studio}$ hours per week. 3 credit hours.

## ART 145

## Three Dimensional Design

Study of the fundamentals of the formal systems and basic elements of visual organization through three-dimensional design principles and theories; use of a variety of media, including recent and traditional materials, such as clay and plaster. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 144, or Consent of Department Chairperson.
$6 \mathrm{lab} /$ studio hours per week. 3 credit hours.

## ART 150

## Crafts Workshop

Creation and construction of art forms in clay, metal, cloth, fibers, plaster and wood; art process in both two and three dimensions; recommended for pre-teachers. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.


#### Abstract

ART 161 Freehand Drawing Elementary drawing in charcoal and pencil from simple groups of block forms, still life, and architectural ornament; includes developing pencil technique. No previous drawing experience necessary. Writing assignments, as appropriate to the discipline, are part of the course. 6 lab/studio hours per week. 3 credit hours. or 1 lecture and 2 lab hours per week. 2 credit hours.


## ART 162

Architectural Representations
Continuation of Art 161. Experimentation with water colors and their use in rendering of architectural representation of building materials, textures and nature; includes exterior and interior perspectives. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 141, and Art 161, or Consent of Department Chairperson. 1 lecture and 2 lab hours per week. 2 credit hours.

## ART 163

## Water Color Painting

Elementary painting and sketching including still life, landscape, and figure painting. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## ART 166

## Oil Painting Techniques

A studio course that serves as an introduction to basic painting techniques and color principles applied to the exploration of oil and acrylic painting media. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 131, or Consent of Department Chairperson.
6 lab/studio hours per week. 3 credit hours

## ART 167

Advanced Oil Painting Techniques
Advanced techniques and experimentation in use of materials and the development of creative styles in oil painting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 166, or Consent of Department Chairperson.
6 lab/studio hours per week. 3 credit hours.

## COURSE DESCRIPTIONS


#### Abstract

ART 172 Communications Design I Design application and merchandising of products and ideas; theory of design of form and function applied to products, brochures, packaging, display, and other commercial designs; application of design in television, newspapers, magazines, billboards, and posters for advertising industry. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 144, or Consent of Department Chairperson. 2 lecture and 2 lab hours per week. 3 credit hours.


## ART 176

## Graphics Design I

Creative approach to graphics, using traditional and modern media, such as drawing, painting, photography, constructed and sculptured art; includes reproduction of illustrations relating to advertising, periodical, and book publishing. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 144.
2 lecture and 2 lab hours per week. 3 credit hours.

## ART 177

Graphics Design II
Continuation of Art 176. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 176. 2 lecture and 2 lab hours per week. 3 credit hours.

## ART 196

## Ceramics

Ceramics formed by coil, slab, or free form methods. Writing assignments, as appropriate to the discipline, are part of the course.
6 lab/studio hours per week. 3 credit hours, or
1 lecture and 2 lab hours per week. 2 credit hours.

## ART 197

## Advanced Ceramics \& Sculpture

Advanced work in pottery and sculpture, use of molds and various materials; individual experiments in pottery and sculpture. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 196, or Consent of Department Chairperson.
6 lab/studio hours per week. 3 credit hours.

## ART 198

## Sculpture I

The creation of sculpture using the formal systems and elements of visual organization in a study of materials and processes; this is done using a variety of tools and media, including but not limited to contemporary and traditional materials. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Concurrent enrollment or grade of C or better in Art 145, or Consent of Department Chairperson.
6 lab/studio hours per week. 3 credit hours.

## ART 200

Individual Art Projects
For advanced students who have completed beginning level studies in the corresponding discipline specific course, or an equivalent course at another institution, or who can demonstrate proficiency through portfolio review in the skills taught in the corresponding prerequisite course. Work is completed on an independent project, the subject of which is designed through dialogue between the student and instructor. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. Not more than an accumulated 6 hours will be counted towards graduation.
1 lecture and 2 lab hours per week. 2 credit hours.

## ART 272

## Communications Design II

Story boards for television commercials, graphics design for television, and development and making of television commercials. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 172, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## ART 275

Computer Art and Applications
An introduction and exploration of electronic imaging through hands-on experience of applications in computer graphics. A variety of software packages pertaining to art will be utilized, as well as input and output devices. The goal of the course is to begin to develop imaging skills in graphics systems. Students will also be introduced to computer concepts of design, color, image importing and exporting, image manipulation, and sequencing techniques. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Art 144, and Art 131, and Art 115, or Consent of Department Chairperson.
6 lab/studio hours per week. 3 credit hours.

## COURSE DESCRIPTIONS

## [ASTROMY] ASTRONOMY (071)

## ASTRONOMY 201

Descriptive Astronomy I
Descriptive survey of major astronomical facts, concepts, and relationships, starting with the solar system and extending to stars, galaxies, and cosmogonies. Writing assignments as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ASTRONOMY 202

Astronomy for Educators
This course is designed to provide educators with a descriptive survey of major astronomical facts, concepts, and relationships starting with the solar system and extending to stars, galaxies, and cosmology. Planets, stars, galaxies, and the Big Bang model will be explored and mapped to Illinois State Learning Goals for astronomy. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for Math 140, grade of C or better in English 102, and Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [AUTOTECH] AUTOMOTIVE TECHNOLOGY (105)

## AUTOMOTIVE TECHNOLOGY 101

## Introduction to Automotive Technology

Lecture and laboratory course covering the operating principles of the modern automobile systems. Subjects will include preventive maintenance of the cooling system, fuel system, electrical system, tires and wheels, lubrication system and accessories. Course will include career exploration and automotive academics. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 103

## Engine Concepts

Disassembly, inspection, and service of automotive engines with major emphasis on operational diagnostics and service. Students gain skills based on industry standards to perform precise diagnostics to solve operational issues related to the automotive engine. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 104

## Electrical Systems and Power Accessories

Introduction to theory, diagnosis, and repair of automotive electrical and electronic components and systems. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 105

Fuel Management 1
Service techniques and theories of operations necessary to maintain modern fuel delivery systems. Service will be performed on modern fuel injection systems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Automotive Technology 103, or Automotive Technology 104, or Consent of Department Chairperson.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 106

## Fuel Systems

This further study of the fuel system provides students with an opportunity to acquire knowledge of the construction, operating principles and components of automotive fuel systems. Students perform service on carburetors as well as fuel injection systems in accordance with established industry standards. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite:Automotive Technology 101, and Automotive Technology 104.
2 lecture and 9 lab hours per week. 5 credit hours.

## AUTOMOTIVE TECHNOLOGY 107

Automotive Body Welding
Students will acquire knowledge and skills in using MIG, TIG and spot welding equipment before welding operations in repairing damaged auto bodies. Proficiencies will be developed in butt and lap welding on light-gauge metal. Course will include replacement of body panels using adhesive techniques. All work performed must be in accordance with established collision industry standards. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 108

Work Based Learning I
Introduction to applied automotive technology in an actual work setting. Provides hands-on experience in an automotive shop. Students work on actual vehicles, carrying jobs from assignment through completion. Business operators will supervise students at the worksite. Instructors will supervise all on-campus and also visit off-campus worksites to observe, monitor, and critique student performance. Writing assignments, as appropriate to the discipline, are part of the course.
1-2 lecture and 10-20 lab hours per week. 3-6 credit hours

## COURSE DESCRIPTIONS

## AUTOMOTIVE TECHNOLOGY 109

## Automotive Brakes

Theory of operation and servicing of braking systems, both conventional and computerized anti-lock brake systems. Emphasis on diagnostic procedures; inspection techniques and service. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 111

Automotive Parts Specialist I
Lecture and Laboratory course covering the principles of selling automotive parts in retail and wholesale parts establishments. Subjects will include customer relations, parts identification and usage, stocking control, product knowledge, telephone ethics, selling skills, and cataloging. Writing assignments, as appropriate to the discipline, are part of the course.
3 lecture and 9 lab hours per week. 6 credit hours.

## AUTOMOTIVE TECHNOLOGY 112

## Automotive Parts Specialist II

Lecture and laboratory course covering skills necessary to manage an automotive parts retail store. Subjects will include customer relations, building team staff, inventory control, corporate relationships, conflict resolution, and business analysis. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Automotive Technology 111.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 117 <br> Auto Body Reconstruction I

Study of the principles and techniques of auto body metal corrections, use and care of basic tools, types and application of fillers, analysis of the extent of damage, and perform required repair operations. Student develops skills in repairing and/or removing and replacing damaged body panels. Emphasis is placed on developing proficiency in repairing body damage according to established collision industry standards. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite Automotive Technology 107, or Consent of Department Chairperson.
1 lecture and 6 lab hours per week. 3 credit hours.

## AUTOMOTIVE TECHNOLOGY 118

## Auto Body Repainting I

Students will execute the techniques of preparing body surfaces, selecting and mixing paint, and spraying. Refinishing techniques will be performed on individual body panels until each student demonstrates competency to refinish a live vehicle. Course will also emphasize recognizing and performing repair techniques for damage paint finishes in accordance with collision industry standards. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 6 lab hours per week. 3 credit hours.

## AUTOMOTIVE TECHNOLOGY 119

## Auto Body Detailing

Study of principles of auto body detailing preparation for post collision repaired vehicles and new and used car delivery service. Students will develop skills in selection and use of proper cleaning and polishing materials, proper buffing and polishing techniques, preparation of plastic bumpers and accessories, steam cleaning of engine components and care of rubber parts and interior cleaning. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 9 lab hours per week. 5 credit hours.

## AUTOMOTIVE TECHNOLOGY 204

Electrical Systems II
This course is designed to provide the necessary knowledge and skills to service today's automotive electrical systems. Selected topics include reading wiring diagrams, diagnosing electrical accessories, theory, diagnosis in operation and design of the ignition system. Students learn circuit testing on today's modern multiplex and CAN/BUS system protocol. Course will emphasize proper handling of advanced solidstate electronics such as air bags and computers. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Automotive Technology 101, or Automotive Technology 104, or Consent of Department Chairperson.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 205

## Fuel Management II

Emphasis on servicing of computerized engine and body controlled modules. Emphasis on service techniques for OBD II foreign and domestic computer control systems. Students will gain skills in the use and interpretation of data related to modern diagnostic test equipment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Automotive Technology 105.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 206

## Fuel Management III

This course builds upon the knowledge gained in previous fuel management courses with emphasis on Diagnosis and repairs to sensors and actuators that control engine performance. Students will gain advanced diagnostic skills to interpret waveform patterns through the use of laboratory scopes. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Automotive Technology 205. 2 lecture and 6 lab hours per week. 4 credit hours.

## COURSE DESCRIPTIONS

## AUTOMOTIVE TECHNOLOGY 207

## Transmissions/Transaxles and Drivelines

This course will cover three, four, and five speed transmissions/ transaxles and all automotive transmissions/transaxles used on front wheel drive passenger cars. Diagnosis and repair procedures will be covered. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 208

## Work-Based Learning II

Advanced hands-on experience in an automotive shop. Students work on actual vehicles, carrying jobs from assignment through completion. Business operators will supervise students at the worksite. Instructors will supervise all on-campus work based learning students, and also visit off-campus worksites to observe, monitor, and critique student performance. Writing assignments, as appropriate to the discipline, are part of the course.
1-2 lecture and 10-20 lab hours per week. 3-6 credit hours.

## AUTOMOTIVE TECHNOLOGY 209

## Steering and Suspension Systems

Theory of operation and servicing of suspension systems both rear and front wheel drive systems. Students gain skills in the use of computerized four-wheel alignment equipment, servicing McPherson struts, shock absorbers, rack and pinion and conventional steering systems. Diagnosis and service of Tire Monitoring Systems (TMS) is now part of the course. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 210

## Performance and Drivability

This course covers the construction, operation, and testing of the ignition systems. Training is offered on the use of oscilloscopes, infrared gas analyzers, and other diagnostic equipment such as scan tool testing. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson
2 lecture and 9 lab hours per week. 5 credit hours.

## AUTOMOTIVE TECHNOLOGY 211

Auto Service Management
Instruction in management skills related to inventory control, writing estimates and repair orders, billing, employee relations, time management, vendor-relations, business financials and customer relations. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 212

## Manual Drive Train and Axles

Upon successful completion of this course, students will demonstrate understanding of design, construction, operation and service principles of automotive clutches, manual transmissions, drivelines, differentials, and rear axles. Service work includes using appropriate repair and test equipment, determining problems or extent of damage, and performing corrective work in accordance with established industry standards. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 215

## Auto Temperature Control Systems

Service procedures and theory of operation of both manual and electronically controlled heating and air conditioning systems. Emphasis will be on diagnosis, service, and replacement of air conditioning components. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 217

Auto Body Reconstruction II
Students will increase their knowledge and skills by repairing more complex, extensive auto body damages. Removal and installation of trim, body panels, welding, aligning various body components of the body, repairing of body hardware and accessories. Repairing or replacement of mechanical components as required for complete reconstruction of the vehicle is emphasized in this course. Students will utilize estimating skills to determine the extent of damaged, repair time and cost of repairs and repair strategies. All work will be performed in accordance with established collision industry standards. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Automotive Technology 117.
1 lecture and 6 lab hours per week. 3 credit hours.

## AUTOMOTIVE TECHNOLOGY 218

## Auto Body Repainting II

Students will build on their refinishing skills learned in Automotive Technology 118. Advanced refinishing techniques are emphasized through practical application of auto body refinishing techniques on live vehicles as well as panels. As refinishing skills increase in proficiency students will acquire skills to perform color matching to refinish weathered finishes and localized panel damage repairs. Students will be evaluated on their ability to complete refinishing assignments in accordance with industry standards. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Automotive Technology 118.
1 lecture and 6 lab hours per week. 3 credit hours.

# COURSE DESCRIPTIONS 

## AUTOMOTIVE TECHNOLOGY 220

## Collision Estimating

Estimating for automotive insurance claims and adjusting damages. Emphasis will be on appraisal procedures, flat rate computations, use of computerized collision estimator software and preparation of insurance claim forms. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## AUTOMOTIVE TECHNOLOGY 221

Service Consultant
This course will examine the responsibilities of an automotive service consultant, including procedures for day-to-day operations and how service techniques are used to maximize satisfaction and profitability. The course content follows the tasks identified for Automotive Service Consultant (C1). ASE terminology is used throughout to describe the people and businesses servicing the driving public. Coverage examines communications specific to customer relations and sales as well as internal communications, relations, and supervision. Customer delivery and follow up round out this thorough exploration of the functions of a successful automotive service consultant. Writing assignment, as appropriate to the discipline, are part of the course. Prerequisite: CIS 120 with a grade of C or better. 150 minutes per week. 3 credit hours.

## AUTOMOTIVE TECHNOLOGY 222

## Managing an Automotive Business

The success of any organization most often depends on the execution and management of such strategic issues as business development, personnel, and fiscal operations. This course will introduce students to the duties and practices assigned to service managers in the successful operation of an automotive service facility. Coverage begins with a general discussion of the management structure and the service manager's role in facility operations. Consideration is then given to navigation of the personnel process from, the recruitment of workers to supervision of their performance. The financial business practice of a service manager familiarizes students with the importance of fiscal responsibility in the operation of a successful automotive service business. Writing assignment, as appropriate to the discipline, are part of the course. Prerequisite: CIS 120, and Business 111, both with a grade of $C$ or better.
150 minutes per week. 3 credit hours.

## 330BKPS] BAKING \& PASTRY

## 330BKPS 765

Introduction to Baking
An introduction to culinary history with emphasis on baking and pastry; instruction in principles and procedures of basic equipment and its use and beginning fundamentals of baking. A look at the contemporary employment options in this field will compare restaurant, specialty, e.g. wedding cakes, retail and wholesale careers. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 100, Reading 125, and Math 098; concurrent enrollment in 330BKPS 766, and 330BKPS 767, and 330BKPS 768, and 330BKPS 769.
150 minutes per week. 3 credit hours.

## 330BKPS 766

Baking Safety and Sanitation
An introduction to safe food production practices. Topics will include prevention of food-borne illness, HACCP procedures, facility sanitation, legal guidelines, kitchen safety, and safe food preparation, storing, and reheating guidelines. The National Restaurant Association ServSafe examination will be a part of this course. Students who pass the exam will receive the ServSafe certification. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 100, and Reading 125, and Math 098; concurrent enrollment in 330BKPS 765, and 330BKPS 767, and 330BKPS 768, and 330BKPS 769.
150 minutes per week. 3 credit hours.

## 330BKPS 767

## Baking Techniques

An introduction to the functions of baking ingredients (flour, sugar, fat, eggs, and liquids) and mixing methods for doughs, fermentation techniques, and bread baking. Special emphasis will be placed on lean dough production and enriched dough methods (laminating, rubbing, and cut-in). Training in evaluation techniques of finished products will be emphasized. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 100, and Reading 125, and Math 098; concurrent enrollment in 330BKPS 765, and 330BKPS 766, and 330BKPS 768, and 330BKPS 769.
1 lecture and 6 lab hours per week. 3 credit hours.

## Course Descriptions

## 330BKPS 768

## Pastry Techniques

An introduction to pastry products and methods, including lamination, short crust, liaison, meringue, pastry cream, pate a choux, vanilla sauce, ganache, custard and mousse. Assembling the various components into completed pastries will include filling, glazing, garnishing, and making a variety of sauces. Students will learn to evaluate the quality of the items that are produced. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 100, and Reading 125, and Mathematics 098; concurrent enrollment in 330BKPS 765, and 330BKPS 766, and 330BKPS 767, and 330BKPS 769.
1 lecture and 6 lab hours per week. 3 credit hours.

## 330BKPS 769

## Cookies and Tarts

An introduction to a variety of mixing methods, doughs, batters, fillings, and glazes with emphasis on preparing unfilled and filled cookies, mignardises, tarts, a variety of petit fours, and other one bite items. Emphasis will be on production and will include specialty preparations, e.g., gingerbread houses. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 100, and Reading 125, and Math 098; concurrent enrollment in 330BKPS 765, and 330BKPS 766, and 330BKPS 767, and 330BKPS 768.
1 lecture and 6 lab hours per week. 3 credit hours.

## 330BKPS 770

Basic and Classical Cakes
Course emphasizes different mixing and assembly methods where students will prepare a variety of classical cakes, from simple pound cakes to elaborate filled cakes and tortes. Classical preparations will include Sacher Torte, Dobos Torte, Opera Torte, Marjolaine, Gateaux St. Honore, and Charlottes. Piping skills will be introduced and practiced. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330BKPS 767, and 330BKPS 768 and 330BKPS 769; concurrent enrollment in 330BKPS 771, and 330BKPS 772, and 330BKPS 773.
1 lecture and 6 lab hours per week. 3 credit hours.

## 330BKPS 771

## Special Occasions Cakes

Decorating techniques will be practiced, including flowers and borders, royal icing, fondant draping, crimping and ruffling and gum paste flowers. Students will prepare special occasion cakes, seasonal cakes, and classical and contemporary wedding cakes. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330BKPS 767, and 330BKPS 768 and 330BKPS 769; concurrent enrollment in 330BKPS 770, and 330BKPS 772, and 330BKPS 773.
1 lecture and 6 lab hours per week. 3 credit hours.

## 330BKPS 772

Individual Pastries
Quantity production will be a key element of this course. From scaling recipes and calculating yields to working a pastry station, each student will be exposed to volume production for pastry buffet tables and retail operations. Emphasis will include presentation and plate designs for banquet desserts. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330BKPS 767, and 330BKPS768 and 330BKPS 769; concurrent enrollment in 330BKPS 770, and 330BKPS 771, and 330BKPS 773.
1 lecture and 6 lab hours per week. 3 credit hours.

## 330BKPS 773

## Confectionary Arts

This course will serve as an introduction to chocolate, sugar, marzipan, finishing techniques, molds, and templates display pieces which are an important art in the pastry chef's repertoire. Each student will create a centerpiece utilizing the skills learned. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330BKPS 767, and 330BKPS 768 and 330BKPS 769; concurrent enrollment in 330BKPS 770, and 330BKPS 771, and 330BKPS 772.
1 lecture and 6 lab hours per week. 3 credit hours.

## 330BKPS 774

Hearth Breads and Rolls
Students will learn to mix, shape, bake, and store breads and rolls. Emphasis will be on efficiency and increased speed in production of quality products including use of traditional fermentation methods, equipment, and methods to emphasize flavor, texture, and appearance as well as techniques that increase shelf life. Students will learn to evaluate the quality of the items that are produced. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330BKPS 767, and 330BKPS 768, and 330BKPS 769; concurrent enrollment in 330BKPS 775 and 330BKPS 776. 1 lecture and 9 lab hours per week. 4 credit hours.

## 330BKPS 775

Specialty Breads
An introduction to advanced bread principles and techniques, including regional and ethnic breads. Production will include multi-grain breads, sourdoughs, bagels, pretzels, holiday or seasonal breads, and flat breads. Special emphasis will be placed on mixing, shaping, and finishing specialty breads, and innovative baking methods. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330BKPS 767, and 330BKPS 768, and 330BKPS 769; concurrent enrollment in 330BKPS 774 and 330BKPS 776. 1 lecture and 9 lab hours per week. 4 credit hours.

## COURSE DESCRIPTIONS

## 330BKPS 776

## Advanced Baking Principles

Course examines baking methods and principles from a nutritional and chemical/physical point of view to accommodate a world where many people have special dietary needs. Topics to be covered include: diets such as vegan, diabetic, low carb, and gluten-free, nutritional analyses, and preparation of items for persons with special dietary needs. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330BKPS 767, and 330BKPS 768, and 330BKPS 769; concurrent enrollment in BKPS 774 and 330BKPS 775.
1 lecture and 6 lab hours per week. 3 credit hours.

## 330BKPS 777

## Chocolate and Confections

An introduction to the tempering chocolate, creation of chocolate sculptures and simple centerpieces, and production of chocolates and other confections including fudge, fondant, nougat, caramel, toffee and truffles. Emphasis will be on creating confections by hand and with special equipment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330BKPS 767, and 330BKPS 768, and 330BKPS 769, and 330BKPS 773, and 330BKPS 776; concurrent enrollment in 330BKPS 778.
1 lecture and 6 lab hours per week. 3 credit hours.

## 330BKPS 778

## Contemporary Desserts

Assembled and decorated with a modern approach, desserts will be produced using the latest technology and equipment. Students will use specialized equipment, practice new presentation methods, and focus on freshness, simplicity of style, and ease of production. Each student will produce a plated dessert and centerpiece using a variety of the techniques learned throughout the program and showing key elements of production, design, freshness of flavor, and consistency. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330BKPS 767, and 330BKPS 768, and 330BKPS 769, and 330BKPS 773, and 330BKPS 776; concurrent enrollment in 330BKPS 777.
1 lecture and 15 lab hours per week. 6 credit hours.

## [BIOLOGY] BIOLOGY (023)

## BIOLOGY 100

Critical Readings in Biology
Prepares students to read in the life sciences. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BIOLOGY 101

General Course Biology I
Basic principles and concepts of biology; general considerations of biological processes, including cellular and organismic levels. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BIOLOGY 102

## General Course Biology II

Continuation of Biology 101. Basic principles and concepts of biology, including how organisms reproduce and inherit; how life on earth evolved and how present day organisms relate to each other. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BIOLOGY 103

## Biology of Human Sexuality

Structure and function in human sexuality; sexuality related to physical, mental, and emotional health; the relationships between sexual behavior and human ecology, population, gene frequencies, and society. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BIOLOGY 107

## Nutrition-Consumer Education

Science of food as it relates to health, including food composition and utilization, food preparation and preservation, nutrition, special diets, fad foods, and foods of the future; social and political aspects of food in the world's future. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BIOLOGY 109

## Human Genetics and Evolution

Basis of inheritance; analysis of human pedigrees; sexlinkage; physical and behavioral aspects of human evolution. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## Course Descriptions

## BIOLOGY 110

Human Ecology
Effects of dense population, effect of humans on air, minerals, noise, and how these affect humans. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BIOLOGY 113

## The Biology of Women

A comprehensive look at the human female throughout her entire life span. Deals with biological sex differentiation, fetal development, and reproductive anatomy. Explains events of a woman's reproductive life from menarche to menopause, sexuality, birth control, infertility, and pregnancy. Discusses transmitted diseases, gynecological problems, breast cancer, controversial treatments, and health care. Examines sociological and cultural health factors that influence a woman's nutrition, physical activity, use of cosmetics, use and abuse of drugs. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BIOLOGY 114

## General Education Biology

A laboratory course emphasizing scientific inquiry through selected concepts of biology, such as organization, function heredity, evolution, and ecology. Biological issues with personal and social implications will be introduced to enable students to make informed decisions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## BIOLOGY 115

## Human Biology

Examines practical aspects of selected concepts in biology and their application to technology. Concepts may include heredity, growth, development, and ecology. Human systems may be studied as they relate to the major topics. Emphasis will be placed on the relationship of the issues to the individual and society. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## BIOLOGY 116

Anatomy and Physiology
Laboratory studies in gross and microscopic mammalian anatomy.Lecturescorrelatinghumananatomyandphysiology. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 4 lab hours per week. 4 credit hours.

## BIOLOGY 119

## Environmental Biology

This general education laboratory course is geared for both environmental science majors as well as non-science majors. The environment and impacts on natural resources, pollution, and ecosystems are emphasized. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## BIOLOGY 120

## Terminology For Medical Careers

Basic medical vocabulary for allied health professionals and others with minimal background in anatomy and physiology; includes study of the human body systems. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BIOLOGY 121

Biology I
Cellular and Molecular Biology. Introduction to biochemistry, molecular genetics, cell structure, function and processes. Laboratory required. Writing assignments, as appropriate to the discipline, are part of the course.
4 lecture and 2 lab hours per week. 5 credit hours.

## BIOLOGY 122

## Biology II

Organismal Biology, Ecology and Evolution. Continuation of Biology 121. An introduction to structure and function of major groups of microorganisms, fungi, animals, and plants. Emphasis on evolutionary relationships and ecological principles. Laboratory required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 121, or Consent of Department Chairperson.
4 lecture and 2 lab hours per week. 5 credit hours.

## BIOLOGY 130

## Human Cadaver Anatomy I

Student-directed learning experiences designed to enhance histology and human cadaver competence; includes osteology, articulations, skeletal muscles and neurology. The course will satisfy the 30 contact hour requirement for Occupational Therapy, Physical Therapy, and other medical programs. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Biology 226.
. 5 lecture and 1 lab hours per week. 1 credit hour.

## Course Descriptions

BIOLOGY 131
Human Cadaver Anatomy II
Continuation of Biology 130. Directed learning experiences are designed to enhance histology and human cadaver competence. The course primarily stresses the following areas: cardiovascular, thoracic, and abdominal cavity systems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Biology 226, and Biology 227, or Consent of Department Chairperson.
.5 lecture and 1 lab hours per week. 1 credit hour.

## BIOLOGY 132

Clinical/Lab Procedures Med Offices
Clinical and Laboratory Procedures in Medical Office for Medical Assistants is a classroom and laboratory course for in depth study of clinical principles and procedures and medical office laboratory techniques to aid in making a diagnosis. The course is recommended for students contemplating a career in the healthcare professions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
2 lecture and 6 lab hours per week. 5 credit hour.

## BIOLOGY 200

## Field Biology

Natural history of local biota. Laboratory and field identification of plants and animals with a study of their habitats and relationships. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 100, or Consent of Department Chairperson.
2 lecture and 3 lab hours per week. 3 credit hours.

## BIOLOGY 201

## Individual Topics in Biology

Students may conduct laboratory research, engage in library projects, and attend seminars. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 2 credit hours will be counted towards graduation.
1 lecture and . 5 lab hours per week. 1 credit hour.

## BIOLOGY 209

## Biochemistry

Biochemistry is designed to give the student in life sciences, allied health fields, and biotechnology a basic understanding of the biological processes at the molecular, cellular and organismic level. An emphasis is placed on the use of laboratory tools and equipment in order to familiarize the student with current biochemical techniques. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Biology 121, and Chemistry 205, or Consent of Department Chairperson. 2 lecture and 4 lab hours per week. 4 credit hours.


#### Abstract

BIOLOGY 210 Survey of Biotechnology This course will serve to introduce students to modern biotechnology, which is based on recent developments in molecular biology, especially, those in genetic engineering and bioengineering. Students will explore the diversity of the field focusing on such areas as medicine, biohazard, bioremediation, biocatalysis, biosafety, agriculture, forensics, quality control and assurance, testing, regulation, law and policy, intellectual property, proteomics, pharmacogenomics, nutrition, and product development. This course will incorporate speakers who are representative of specific areas in biotechnology. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 121, and Chemistry 121. 2 lecture and 2 lab hours per week. 3 credit hours.


## BIOLOGY 226

## Human Structure and Function I

Human anatomy and physiology. This laboratory course is recommended for those contemplating a career in the health professions and emphasizes the structure and function of the human body. Microscopic and gross anatomy are correlated with physiology. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 114, or Biology 115, or Biology 121, or Consent of Department Chairperson. (Previous completion of Biology 120 Terminology for Medical Careers strongly suggested). 2 lecture and 4 lab hours per week. 4 credit hours.

## BIOLOGY 227

Human Structure and Function II
Continuation of Biology 226. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 226, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## BIOLOGY 241

## Genetics

Principles of heredity, structure of genetic material, mechanism of transmission, and the role of genetics in evolution. Application of these principles to human and other organisms is included. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 101, and Biology 102, or Biology 114 and Biology 115, or Biology 121 and Biology 122, or Consent of Department Chairperson. 2-3 lecture and 4 lab hours per week. 3-4 credit hours.

## Course Descriptions

## BIOLOGY 242

## Evolution

Origin, history and development of plants and animals. Includes evidence from anatomy, paleontology, comparative physiology, biochemistry, immunology, and genetics. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 101, and Biology 102, or Biology 114, and Biology 115, or Consent of Department Chairperson.
50 to 150 minutes per week. 1-3 credit hours.

## BIOLOGY 250 <br> Introduction to Molecular Biology

The first course in a three-part series in the biotechnology program/plan 215. This course stresses an introduction to current concepts and progress in modern molecular biology with emphasis on DNA science and genetic engineering as it applies to molecular, cellular, and organismic biology. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Biology 121, or Consent of Department Chairperson. Not more than an accumulated 6 credit hours will be counted towards graduation.
150 minutes per week. 3 credit hours.

## BIOLOGY 251

## Molecular Biology I

The second course in a three-part series in the biotechnology program/plan 215. The course stresses the theory and practice of separation techniques and safety procedures that are employed in the purification and essay of such biomolecules as nucleic acids, proteins and other related substances, and the relationship of these molecules to living organisms. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Biology 250, or Consent of Department Chairperson. 2 lecture and 4 lab hours per week. 4 credit hours.

## BIOLOGY 252

## Molecular Biology II

The third course in a three part series, stresses the practice of current techniques used in DNA science, protein isolation, immunology and introduces selected biotechnology protocols. An emphasis is placed on the use of laboratory tools and equipment in order to familiarize the student with current biochemical techniques. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Biology 251, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## BIOLOGY 253

## Plant Molecular Biology

This course is designed for students in the life sciences and biotechnology to understand how plants function at the molecular level, including the current advances in plant molecular biology and genetic engineering. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 121,or Biology 250 with a grade of $C$ or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## BIOLOGY 260

## Introduction to Bioinformatics

This course will cover a range of bioinformatics research using a case-based, problem solving approach. The course will consist of a combined lecturer-computer laboratory format to provide hands-on experience in applying bioinformatics to a variety of research problems, including genomic analysis, DNA microarray analysis, phylogenetics, three-dimensional structure prediction, and proteomics. Special attention will be paid to ethical, legal and personal concerns in the practice of bioinformatics. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 121, 122, and Biology 210 with a grade of C or better, Math 140, and CIS 142, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## BIOLOGY 299

## Special Topics in Biology

Special topics in biology and biotechnology will be discussed along with appropriate lab and/or field trip activities. New developments will be emphasized, especially materials useful in K-12 education and industry. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times when topics are different, and may count for a maximum of six variable credits. Consent of Department Chairperson required for repeatability.
.5 to 5 lectures and 1 to 2 lab hours per week. 1-6 credit hours

## COURSE DESCRIPTIONS

## [BOTANY] BOTANY (025)

## BOTANY 201

## General Botany I

General biological principles applied to anatomy, physiology, reproduction, and heredity of seed plants. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a C or better, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## [BUSINES] BUSINESS (030)

## BUSINESS 110

## Development of Modern Business

Survey course covering world background of business and the economic status of the United States, corporate history in America, areas of business development of American business institutions, business leaders, government in business. Writing assignments, as appropriatetothediscipline, are part of the course.
150 minutes per week. 3 credit hours.

BUSINESS 111
Introduction to Business
Survey of modern U.S. business, analyzing organization and types of businesses, major business functions, business and the environment, roles played by business and consumers in the economy, and various economic systems. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 113

## Basic Keyboarding

Instruction in the basic keyboard of a word processor or other automated office equipment. Skill development and application to basic business materials. Writing assignments, as appropriate to the discipline, are part of the course.

## .5-2 lecture and 1-2 lab hours per week.

1-3 credit hours.

## BUSINESS 114

Intro To Urban Mass Transit
Overview of the public and private transit system, including formation and implementation at the national, local, and regional levels. Examination of recent trends, traditional problems, and merging issues in urban and regional transportation. Emphasis on management strategies that can be used in daily operations of a public or private transit system, including obligation to customer role, of urban transit manager, demand management, paratransit alternatives, and safety issues. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 117

## Keyboarding/Formatting

Basic touch typing techniques; business letters. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## BUSINESS 118

## Keyboarding/Formatting II

Skill development and application to basic business materials. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 117, or Placement Test.
2 lecture and 2 lab hours per week. 3 credit hours.
BUSINESS 136
Medical Office Procedures
Basic clerical duties and responsibilities in physicians' offices, clinics, and hospitals. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 118, and Biology 114, and Placement Test, or Consent of Department Chairperson.
50-150 minutes per week. 1-3 credit hours.

## BUSINESS 140

Desktop Publishing
Fundamental concepts of integrating, composing, and assembling word processing, graphics and pictures on a page using a microcomputer with a publishing software program and a laser printer to print high-quality documents using soft fonts and cartridges. Production of high-quality forms, reports, advertising pieces, and business documents. Emphasis will be on business applications and personal use for students, consultants, entrepreneurs, secretaries, retailers, executives, authors, typesetters, and other professionals. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## Course Descriptions

## BUSINESS 141

Business Mathematics
Review of basic arithmetic principles, application of arithmetic operations to business forms and to analysis and solution of problems of percentage, markup, and markdown, discounts, interest, prorating, life and property insurance, taxation, and payrolls. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 147

## Introduction to Paralegal Studies

This course is the first of the required courses in the Paralegal AAS program/plan 304. It provides an overview of the American legal system. It explores the paralegal field, including the basic skills, concepts, and reasoning processes for success in a paralegal career. This course explores basic paralegal roles and responsibilities and specific limitations as they relate to the legal system and the law office environment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, or English 100 with a grade of C or better, or Consent of Department Chairperson. (College level math eligibility - students not meeting college level math eligibility must complete Math 099 with a grade of $C$ or better. Business 147 can be taken concurrently with Business 148 and Business 149.)
150 minutes per week. 3 credit hours.

## BUSINESS 148

## Civil Litigation

This course is one of the requirements of the Paralegal AAS program/plan 304. It introduces the student to procedural concepts of the civil litigation process, in state and federal courts with an emphasis on Illinois and federal civil codes. It examines the role of the paralegal from the initial phases of the pre-trial investigation and discovery through the appeals process while emphasizing legal theory and practical skills. This is a writing intensive course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, or English 100 with a grade of C or better, or Consent of Department Chairperson. (College level math eligibility - students not meeting college level math eligibility must complete Math 099 with a grade of C or better. Business 148 can be taken concurrently with Business 147 and Business 149.)
150 minutes per week. 3 credit hours.

## BUSINESS 149

## Family Law

This course is one of the requirements of the Paralegal AAS program/plan 304. It is an overview of the basic principles of family law and domestic relations, with an emphasis on Illinois law. It examines the areas of marital contracts, divorce, annulment, issues affecting children, and other legal matters relating to domestic relations. It also covers client interviews, the drafting of necessary pleadings and supporting documents, and the performance of basic research relating to family law and domestic relations as well as the role of the paralegal in family law. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. (College level math eligibility - students not meeting college level math eligibility must complete Math 099 with a grade of $C$ or better. Business 149 can be taken concurrently with Business 147 and Business 148.)
150 minutes per week. 3 credit hours.

## BUSINESS 150

## Legal Research and Writing I

This course is one of the requirements of the Paralegal AAS program/plan 304. It provides an overview of the fundamentals of legal research and writing. This course covers the use of primary and secondary source materials to research legal questions. It examines different types of legal documents and provides training in legal analysis. The course also includes principles and techniques in legal writing and their application to legal correspondence and documents as well as the role of the paralegal in legal research and writing. This is a writing intensive course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of English 102, and Business 220, and Business 223 with a grade of $C$ or better.
150 minutes. 3 credit hours.

## BUSINESS 155

## Working in Warehousing Environment

Provides learners with an overview of the functional and structural composition of warehousing and distribution centers. Topics include product flow, warehousing processes, working safely in a warehousing environment, principles in running a business, workplace ethics and how employees affect the bottom line. Writing assignments, as appropriate to the discipline, are part of the course.
75 minutes per week. 1.5 credit hours.

## BUSINESS 156

## Warehousing Workforce Skills

This course provides training in the workplace practices that contribute to success on the job. Writing assignments, as appropriate to the discipline, are part of the course.
75 minutes per week. 1.5 credit hours.

## COURSE DESCRIPTIONS

## BUSINESS 158 <br> Warehousing and Distribution Process

This course provides learners with the knowledge and core skills associated with warehousing and distribution. Writing assignments, as appropriate to the discipline, are part of the course.
125 minutes per week. 2.5 credit hours.

## BUSINESS 159

## Warehousing Technology Skills

Warehousing technology skills are those practices important to working in a technical environment. This course covers the use of scanners and data applications along with the understanding of industrial controls and computers and automation. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## BUSINESS 162 <br> Representative Warehousing Skills

This course discusses mathematical concepts used in Supply Chain Management (SCM) warehousing and distribution. It also focuses on powered material handling equipment and safety requirements. Warehousing simulations provide the opportunity to use new skills. Writing assignments, as appropriate to the discipline, are part of the course.
125 minutes per week. 2.5 credit hours.

## BUSINESS 164

## Warehousing and Distribution Coop

This course will enable students to use the skills they have learned in the other Warehousing and Distribution classes. This coop will also demonstrate student' readiness for full time employment by working in a warehouse under close supervision. Writing assignments, as appropriate to the discipline, are part of the course. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## BUSINESS 176

## Records Management

This course provides an introduction to the increasingly comprehensive field of records and information management. It emphasizes the principles and practices of effective records management for manual systems while offering practical information. Basic manual systems concepts needed for understanding retrieval methods are discussed and applied. Emphasis is placed upon control for ensuring that the records system achieves its stated goals. Includes introduction to the electronic file management system. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 177

Clerical Bookkeeping
This is an applied course that prepares students for the functions of clerical bookkeeping duties within the accounting department of an organization. It focuses on the procedures of how to handle accounts receivables, accounts payables, sales and receipts, depreciation and inventory. Basic bank teller processes, the role of the bookkeeper as an agent, and along with internal control procedures are introduced. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Concurrent enrollment in Business 176, or Consent of Department Chairperson 150 minutes per week. 3 credit hours.

## BUSINESS 178

## Bookkeeping Computer Applications

This is an applied bookkeeping course that prepares students for the functions of pre-accounting duties within the accounting department of an organization. It focuses on the responsibilities of a bookkeeper and will include learning how accounts are categorized via the elements of the accounting equation. Students will gain knowledge of the trial balance, end-of-period procedures and closing the books. A familiarity with key financial statements will be obtained. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 176, and Business 177, or concurrentenrollmentorConsentofDepartmentChairperson. 200 minutes per week. 4 credit hours.

## BUSINESS 180

## Fundamentals of Accounting

This course emphasizes basic accounting principles and other business concepts as they apply to the reporting of financial data and other economic events of a business enterprise. Emphasis is on recording, analyzing, and interpreting historical data and showing its financial effect on businesses. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## Course Descriptions


#### Abstract

BUSINESS 181 Financial Accounting This course presents accounting as an information system that produces summary financial statements, primarily for users external to a business or other enterprise. Students study the forms of business organization and the common transactions entered into by businesses. The emphasis is on understanding and applying basic accounting principles and other concepts that guide the reporting of the effect of transactions and other economic events on the financial condition and operating results of a business. How to analyze and interpret historical financial statements and the limitations of using these in making forward-looking business decisions are included. The primary content emphasis will be accounting for current assets and liabilities, long-term assets and liabilities, corporations, cash flow statements and financial statement analysis. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 111, or Business 141, or Mathematics 098 or higher; or concurrent enrollment in Business 141, or Placement Test, or Consent of Department Chairperson. 200 minutes per week. 4 credit hours.


## BUSINESS 182

## Managerial Accounting

This course presents accounting as a system of producing information for use in internally managing a business. The course emphasizes the identification, accumulation, and interpretation of information for planning, controlling and evaluating the performance of the separate components of a business. Included is the identification and measurement of the costs of producing goods or services and how to analyze and control these costs. Decision models commonly used in making specific short-term and long-term business decisions are included. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 181, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## BUSINESS 183

## Payroll Accounting

A comprehensive course that prepares students for the functions of payroll within an organization. Introduces principles, procedures, and terminology for business applications of payroll methods. Emphasizes federal and state payroll records and forms. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 178, or Business 181, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 184

Principles of Medical Office Administration
This course for Medical Assistants encompasses the administrative principles of the medical office. This administrative course is recommended for those contemplating a career in the healthcare professions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: High school diploma, or GED, or Consent of Department Chairperson.
300 minutes per week. 6 credit hours.

## BUSINESS 200

## Business Ethics

This course explores the ways in which the failure to consider the ethical aspects of decisions can bring managerial careers to an end. It distinguishes right versus wrong ethical conflicts from right versus right conflicts and develops guidelines and frameworks that leaders can use to resolve conflicts. The cases highlight the need to appreciate the ethical complexity of the social environments of business and to think through all the ramifications of decisions. Specific topics include honesty and deception in negotiations, the use and abuse of trust, products safety and target marketing with the creation of productive and ethical workplaces as a continuing challenge to modern leaders. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 203

## Introductory Cost Accounting

General accounting principles applied to factory operations. Includes methods of finding costs of specific orders, lots and processes, and basis of allocating overhead expenses. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 181, or Business 182. 150 minutes per week. 3 credit hours.

## BUSINESS 204

Computer Applications for Intermediate Accounting
Utilizes a computer to perform major accounting tasks such as recording entries, posting to ledgers, generation of trial balances and financial statements, as well as special reports, all encountered in Business 205. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 205.
50 minutes per week. 1 credit hour.

## BUSINESS 205

## Intermediate Accounting

Application of funds, analysis of working capital, investments, inventories, amortization and depreciation, and cost expirations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 182, or Business 204.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## BUSINESS 206

## Auditing

Includes external balance-sheet audits, recent developments in techniques of auditing cash, receivables, inventories, investments, fixed assets, and liabilities. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 205, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 207

## Intermediate Accounting II

Accounting for the rights of creditors and stockholders; principles of fund accounting; statement analysis; special problems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 205. 150 minutes per week. 3 credit hours.

## BUSINESS 208

## Federal Income Tax

Study of the principles of the Internal Revenue Code, practical application of tax rules to the preparation of returns, and application of accounting rules to tax matters. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 182, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 211

## Business Law I

Laws of business transactions, including contracts, agency, employment and partnerships, and study of the Uniform Commercial Code. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 212

## Business Law II

Continues study of laws covering corporations, negotiable instruments, sales, real estate, and bailments. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 214

The Legal and Social Environment of Business
A study of the legal and social environment of business with emphasis on business ethics and corporate social responsibilities. Areas of concentration include governmental regulation of business, securities law, consumer protection law, labor law, and employment law. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 216

## Entrepreneurship

Entrepreneurial skills, organization, promotion and management in self-employment or administration in occupations and organizations; research and discussions with successful owners and managers in the business community. Students receive practice in planning, decision-making, and self-evaluation. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 219

## Real Estate Law for the Paralegal

This course is one of the requirements of Paralegal A.A.S. program/plan 304. It introduces the fundamentals of real estate law, with emphasis on Illinois law, and provides a basic understanding of the elements of the real estate industry. The course covers real property law, categories of ownership, legal descriptions, contracts, financial aspects, and special issues in real law. It also examines the real estate transaction from the beginning of the process to the closing. It emphasizes the drafting of legal descriptions of property, preparing closing documentation, and performing a title search. It also examines the role of the paralegal in a law office, financial institution, or title company. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of Business 147, and Business 148 with a grade of C or better.
150 minutes per week. 3 credit hours.

## BUSINESS 220

## Criminal Law for the Paralegal

This course is one of the requirements of the Paralegal A.A.S. program/plan 304. It explores the Illinois and federal court systems as well as defines the categories of crime and the types of legal defenses. It introduces the concepts involved in criminal proceedings and explores the stages of criminal litigation, from the arrest through post-trial procedures. It enables the student to understand all procedural aspects of criminal cases and the role of the paralegal in aiding an attorney in trial preparation, the trial itself, and post-trial procedures and appeals. (This is a writing intensive course.) Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of Business 147 , and Business 148 with a grade of C or better.
150 minutes per week. 3 credit hours.

## BUSINESS 221

Insurance
Preparation for the agents' or brokers' licensing examination. Includes life and casualty insurance, automobile, fire, health and accident, and workers compensation. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## Course Descriptions

## BUSINESS 222

## Business Law for the Paralegal

This course is one of the requirements of the Paralegal A.A.S. program/plan 304. It provides the student with an in-depth analysis of the law pertaining to types of business organizations, contract formation, resolution of contract disputes and the impact of the Uniform Commercial Code on traditional contract theory. The role of a corporate paralegal is covered as it relates to the business environment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of Business 147, and Business 148 with a grade of $C$ or better.
150 minutes per week. 3 credit hours.

## BUSINESS 223

## Tort Law

This course is one of the requirements of the Paralegal A.A.S. program/plan 304. It examines the fundamental elements of tort law and the principles of tort litigation. It introduces the different categories of torts and focuses on the role of the paralegal in tort litigation from the point of view of both the plaintiff and defendant. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of Business 147, and Business 148 with a grade of $C$ or better.
150 minutes per week. 3 credit hours.

## BUSINESS 224

## Wills, Trusts and Probate

This course is one of the requirements of the Paralegal program/plan 304. It covers both the theoretical and practical knowledge needed in the estate planning and probate processes. It covers wills, trusts, and estate administration. The course emphasizes the role of the paralegal in the drafting of estate planning documents and carrying out probate procedures. Emphasis is placed on applicable Illinois law and Federal tax laws. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of Business 149, and Business 219, and Business 222 with a grade of $C$ or better.
150 minutes per week. 3 credit hours.

## BUSINESS 225

Legal Research and Writing II
This course is one of the requirements of the A.A.S. Paralegal program/plan 304. It is a continuation of Business 150 and provides a more in-depth, hands-on exploration of legal research, writing, and analysis. It provides additional experience in legal research, reasoning, analysis, and writing. This course continues to explore the various legal reference sources, both traditional and non-traditional, and to develop legal reasoning skills and strategies to analyze legal authority in case law. This is a writing intensive course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of Business 150 with a grade of $C$ or better.
150 minutes per week. 3 credit hours.

## BUSINESS 226

## Internship for the Paralegal

This course is the final requirement for the A.A.S. Paralegal program/plan 304. It is designed to enable students to combine classroom training with practical paralegal work experience through supervised on-the-job training in a public or private legal setting. The course covers legal ethics, law office management, interviewing, and job placement skills. Periodic seminars are held to discuss experiences, concerns, and topical questions. Students are required to write summaries of current law articles, keep a journal, and prepare a portfolio which will include a resume, letters of recommendation, and other pertinent materials. A minimum number of hours of on-site time are required for this course. Internship placement must be approved by the Program Coordinator. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Successful completion of all other Paralegal A.A.S. 304 program requirements with a grade of $C$ or better, and Consent of Department Chairperson.
15 lab hours per week. 3 credit hours.

## BUSINESS 227

## Elder Law

This course is an overview of legal issues that are increasingly relevant as the older population increases. It covers a variety of legal documents and the many legal situations which affect the elderly. It also covers topics such as asset management, estate planning, health care, personal planning and protection, resources of both public and private agencies and organizations, and the court systems. It examines the role of the paralegal in interacting with elderly clients as well as in using the various resources available in elder law. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of Business 149, and Business 219, and Business 222 with a grade of $C$ or better.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## BUSINESS 228 <br> Environmental Law for the Paralegal

This course examines the fundamental concepts of environmental law. It emphasizes both state and federal laws and regulations enacted to preserve and protect the environment. It covers the specific areas of air quality control, water quality control, toxic substance control, waste management, and hazardous releases. It also covers energy policy, natural resources, international environmental law, and current environmental issues. It focuses on the role of the paralegal in environmental law. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of Business 219, and Business 222 with a grade of C or better.
150 minutes per week. 3 credit hours.

## BUSINESS 229

## Immigration Law

This course examines the fundamental concepts of environmental law. It emphasizes both state and federal laws and regulations enacted to preserve and protect the environment. It covers the specific areas of air quality control, water quality control, toxic substance control, waste management, and hazardous releases. It also covers energy policy, natural resources, international environmental law, and current environmental issues. It focuses on the role of the paralegal in environmental law. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of Business 220, and Business 223 with a grade of $C$ or better.
150 minutes per week. 3 credit hours.

## BUSINESS 230

## E-Business Marketing

Explores resources, knowledge, skills, practices and techniques necessary to conduct business online. Explores nature and impact of e-commerce on business and business operation, resources required and available, customer relationship management, ordering systems, end-to-end marketing and performance, and control systems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 111, or CIS 120, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 231

## Marketing

Examines the functions and objectives of marketing. Includes flow of industrial and consumer goods through the marketing system and the role of the consumer, the product, the market, the pricing policies, and promotion and distribution methods. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 111. 150 minutes per week. 3 credit hours.

## BUSINESS 232

Fundamentals of International Business
Analysis of problems stemming from the movement of goods, services, human resources, technology, finance, and ownership across national boundaries. Direct focus on the development of management skills in handling of multinational business. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 111, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 236

## Advertising

Study of basic functions, principles, and techniques of advertising, including the role of advertising in the marketing system. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 237

Selling
Factors of successful selling of goods or ideas, buying motives, sales psychology, customer approach, and sales techniques. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 238

Legal Ethics for the Paralegal
This course is an elective in the Paralegal A.A.S. program/ plan 304. It provides the student with an overview of ethical considerations arising in the paralegal profession. This course discusses the regulation and discipline of attorneys and paralegals, issues related to confidentiality and conflicts of interest, unauthorized practice of law and other ethical issues that pertain particularly to paralegals. Students will discuss general ethical considerations and will work directly with the Illinois Rules of Professional Conduct. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Business 147, and Business 148, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## Course Descriptions


#### Abstract

BUSINESS 239 Business Organizations and Agency Law This course is an elective in the Paralegal A.A.S. program/ plan 304. It provides the student with an overview of the formation and operation of business enterprises, exposes the student to types of business organizations and to the law surrounding principal/agent relationships. Students will learn about sole proprietorships, general and limited partnerships, limited liability companies, and corporations. The role of a corporate paralegal is covered as it relates to the benefits and disadvantages of each type of entity as well as the formation, dissolution, and recordkeeping for each of these entities. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Business 222, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.


## BUSINESS 240

## Computers in the Law Office

This course is an elective in the ParalegalA.A.S. program/plan 304 and can be taken in lieu of the Internship Requirement. The course is designed to be a general introduction to the use of computer software programs in the modern law office. Office organization, legal terminology, fees and billing procedures, e-filing, scheduling and calendaring, preparation and maintenance of case files, preparation of law office forms, and an introduction and survey of a variety of legal specific software and legal web resources are involved in this course. Students will develop a greater appreciation for computers by learning how computers can help paralegals complete tasks and assignments. This course includes hands on computer exercises using professional software programs and web resources used in the law office by paralegals. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Business 223, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 241

## Introduction to Finance

Surveys methods of financing business enterprises and their relationships to personal and company investment policies. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 181, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 242

Financial Markets and Institutions
This course examines the different financial institutions and financial markets. Topics include interest rate determinants, monetary policy, federal reserve system, financial intermediaries, and regulatory agencies. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 241, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 243

Fundamentals of Investments
This course examines the institutional investment process. Emphasis on common stocks and other financial securities traded over the financial exchanges. Topics include risks, returns, portfolio selection, and portfolio performance. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 241, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 244 <br> Personal Finance

Personal investment programs including the sources and uses of investment information. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 250

Computerized Accounting Systems
Computerized Accounting focuses on exposing the student to various computerized accounting systems and how these systems accomplish the goals of accounting information system of a business entity. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 181, or CIS 120 or equivalent, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 251

## Public Relations

This course examines the organization's process of communication to the public. Topics include multicultural community relations, consumer relations, and crisis management. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 231, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 252

Product Planning and Development
This course examines the factors influencing product planning and development. Topics include new product strategies, idea generation, perceptual mapping, and product position. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 231, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## BUSINESS 253

## Consumer Behavior

This course examines the decision-making process of the consumer. Topics include perception, motivation, lifestyles, and attitudes. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 231, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## BUSINESS 254

## Integrated Marketing Communications

This course examines the purposes of objectives integrated marketing communications. Emphasis on communication strategy formulation and development via various advertising and promotional tools, such as personal selling, public relations, trade promotions, and consumer promotions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 231, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 255 Corporate Finance

This course examines the various factors that influence the financial decisions of corporations. Topics include risk and return analysis, capital budgeting, capital structure, dividend policies, and mergers and acquisitions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 241, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 257

## Principles of Retailing

Functions of retailing, including current trends and problems. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 258

## Small Business

Organization and operation of small-scale retail, trading, service or manufacturing business. Problems of location, financing, labor, accounting and production, taxes, and insurance. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 268

## Introduction to Supervision

Understanding fundamental requirements for successful leadership and supervision. Methods for handling the day-to-day problems of supervision. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 269

Principles of Management
Analysis of major functions and principles of management; emphasisonsupervisoryandoperatinglevelsofmanagement; theories, policy-making, effective communications, and the art of decision-making. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 111, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 270

## Office Management

Application of management principles to planning, organization, and controlling of office work. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 271

## Human Resources Management

Employment techniques, wages and hours, job evaluation, training, employee ratings, collective bargaining, employment counseling and collateral benefits, such as pensions and fringe benefits. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 272

## Sales Management

Planning of sales efforts, management of sales and services, human resources, and controlling sales operations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 111, and Business 237, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 273

## Organizational Behavior

This course examines the theories and concepts related to human behavior in organizations. Topics include individual behavior, group behavior, and organizational structure and culture. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 269.
150 minutes per week. 3 credit hours.

## BUSINESS 274

Industrial Management
Characteristics of industrial enterprise, problems of materials procurement, plant organization and layout; labor relations and human resources policies, efficiency techniques, automation, and production development. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## Course Descriptions

## BUSINESS 278

## Compensation \& Benefits Administration

This course examines the design and implementation of an organization's compensation systems. Topics include job analysis, base pay structure, incentives, and performance measurements. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 269, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 279

## Human Resources Planning \& Staffing

This course examines the functions and objectives of human resources planning and staffing. Includes staffing models and strategies, recruitment, selection, employment and retention. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 271, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 281

Office Procedures for Office Administrative Assistants
Records management, editorial duties, correspondence and reports, and work simplification procedures. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 282

## Business Administration for Office Assistants I

Current business problems, trends, and economic systems emphasizing basic concepts in free private enterprise, labor force, financial systems, government regulation of business, acts affecting labor, marketing and pricing, credit, banking and investment programs, and social responsibilities of business. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 111, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 283

## Business Administration for

## Office Administrative Assistants II

Business administration of human resources policies, financing and investing, problems and trends in production, distribution, transportation, and various office functions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 111, or Consent Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 284

Business Communications
Study of communication (including motivation, perception, language, distortions, organizations, listening) and its role in the administrative process. Patterns of mis-communications (such as by-passing, deception, generalizations, association, labeling) are examined for better understanding of communication process and to improve organizational environment. Consideration given to the psychological impact of various communications media. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## BUSINESS 285

## Real Estate Principles

Preparation for state real estate examination. Includes real property, deeds, agreements of sale, mortgages, financing, valuation and appraisal, leases, and closing statements. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 111, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 287

## Real Estate Practice and Procedure

Sales contracts, closing statements, finance, insurance, and the Illinois real estate brokers and salesman's laws. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 111, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 288

## Real Estate Appraisal

Functions and purposes of appraisals, including neighborhood and area trends, site valuation, building cost estimates, and depreciation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 285, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 289

## Real Estate Management

Property management, including merchandising, residential space, managing furnished buildings, single family units, office buildings, commercial properties, and cooperative apartments, setting store rentals, maintenance problems, and operation of a management office. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 285, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## BUSINESS 291

## Leadership

This course examines the process by which an individual exerts influence over other individuals and inspires, motivates, and directs their activities to help achieve group or organizational goals. Topics include power and influence, participative leadership, leadership theories, and managerial traits, and skills. Writing assignments, as appropriate to the discipline are part of the course. Prerequisite: Business 269, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## BUSINESS 292

## Employment Law

This course examines the legal environment relationship, procedures and discrimination. Topics include selection, termination, affirmative action, sexual harassment, and unions and collective bargaining. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Business 269, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [330BSCM] BUSINESS \& COMMERCIAL TECHNOLOGY

## 330BSCM 100

## Public Passenger Vehicle Training/Taxi

Course is designed to prepare individuals to take the licensure examination required by the City of Chicago to become unrestricted public chauffeurs. The course rules and regulations governing the operations of a public chauffeur in Chicago, focuses on street law, judicial procedures, and mastery of geography through routing exercises. This course also covers cultural sensitivity and diversity, customer service, accessibility training and taxi Access Program (TAP) and safety of the passenger as well as the driver. Students must also take a four-hour Intra-City bus tour. Writing assignments, as appropriate to the discipline, are part of the course.
300 minutes per week. 6 credit hours.

## 330BSCM 503

## Business Writing

Fundamentals of business correspond-ence; includes composing business letters, memorandum and reports using a personal computer. Writing assignments, as appropriate the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 330BSCM 508

Practicum
Planned and supervised career field experience relating to a student's occupational program is emphasized. Placement will introduce the student to the real world of work in the field of Information Processing. Writing assignments, as appropriate to the discipline, are part of the course.
5 lab hours per week. 1 credit hour.

## 330BSCM 525

## Introduction to Office Systems

The major components of a computer system, terminology, operating system command structure, and related utilities will be integrated throughout the course. Basic operations, including directories, cataloging, and comparing files are covered. Advanced concepts such as sub directories, folders, and text editing are discussed. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 3 lab hours per week. 2 credit hours.

## 330BSCM 526

## Introduction to Personal Computers

Overview course that ensures students a firm foundation in computer applications. Students will be introduced to operating systems, word processing, database, spreadsheet, desktop publishing, multimedia and telecommunications. This course will also explain the difference between working on a network or a stand-alone environment. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 3 lab hours per week. 2 credit hours.

## 330BSCM 532

## Basic Computer Technology

Course provides students with an overview of the basic computer concepts and terminology, the Internet and the Microsoft Office applications. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture hours per week. 2 credit hours.

## 330BSCM 538

Business Mathematics I
Provides skills in developing sufficient knowledge of the basic mathematical fundamentals such as addition, subtraction, multiplication, division, decimals, percents, interest and discounts. Writing assignments, as appropriate to the discipline, are part of the course.
50-150 minutes. 1-3 credit hours.

## 330BSCM 539

Business Mathematics I/
Develop occupational proficiency in performing business applications such as discounting, percents, interest, decimals, and payrolls. Writing assignments, as appropriate to the discipline, are part of the course.
50-150 minutes. 1-3 credit hours.

## Course Descriptions

## 330BSCM 540

## Business Mathematics III

Review basic math principles and application of occupational proficiency in performing business applications such as discounting, payrolls, decimals, interest, and percentages; includes basic accounting principles as applied to the office environment. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 330BSCM 543

## Keyboarding for Microcomputers I

Course will teach students to operate the keyboard by touch and begin the development of speed and accuracy levels and also includes formatting of basic documents. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 3 lab hours per week. 2 credit hours.

## 330BSCM 544

Keyboarding for Microcomputers II
Course will provide training in keyboarding, skills building, and document formatting. Student will use word processing software as a tool to build keyboarding speed and accuracy. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 3 lab hours per week. 2 credit hours.

## 330BSCM 546

## Career Development I

Interpersonal skills training to prepare individuals for the world of work with emphasis on community resources, career development, professional grooming, and office etiquette. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 330BSCM 550

## Word Processing Applications

Development of techniques and skills for word processing software. Features covered include: editing, retrieval, merging and storage of documents, systems layout, design management processes and implementation of programs. Writing assignments, as appropriate to the discipline, are part of the course.
6 lab hours per week. 2 credit hours.

## 330BSCM 551

Spreadsheet Applications
Introduce students to spreadsheet concepts and applications. Students will format spreadsheets using effective design principles: entering common spreadsheet formulas, sorting data, using graphic/chart functions and importing spreadsheet files. The course is designed to teach students to think analytically, manipulate information, and use the computer as a productivity tool. Writing assignments, as appropriate to the discipline, are part of the course.
6 lab hours per week. 2 credit hours.

## 330BSCM 552

Database Applications
Course provides training in the concepts of database management and the use of relational database software for business applications. Students will create and manipulate data files and format output as documents and reports. Writing assignments, as appropriate to the discipline, are part of the course.
6 lab hours per week. 2 credit hours.

## 330BSCM 553

Desktop Publishing I
Course covers the fundamental concepts of desktop publishing techniques, usage of microcomputers to create high-quality documents, principle page layouts, publications, text and graphic documents, brochures, newsletters, business cards, publications, terminology and applications. Students will create a variety of documents and demonstrate proficiency in software functions. Writing assignments, as appropriate to the discipline, are part of the course.
6 lab hours per week. 2 credit hours.

## 330BSCM 568

Language Skills I
Course provides comprehensive coverage of the fundamentals of English as applied to business applications. The students will develop a solid foundation of English grammar essential for successful communication. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

[CAD TECH] CAD TECHNOLOGY (049)
(Computer-Aided Design)

## CAD TECHNOLOGY 130

CAD Technology I
Application of pictorial techniques used in preparation of industrial illustrations; study of oblique, axonometric, perspective, and exploded views; methods and techniques of shading, commercial media, and reproduction processes. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Engineering 100, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## CAD TECHNOLOGY 170

CAD Technology II
Introduction to programming techniques using computeraided (CAD) systems; use of basic command structures, keyboard and menu tablets; text dimensioning and pen and layer selection. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Engineering 100, or Engineering 110, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## CAD TECHNOLOGY 171

## CAD Technology III

Intermediate programming techniques using computer-aided (CAD) systems; techniques of file handling, archiving and plotting; drawing manipulations of translation and rotation to prepare for CAD system operation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Architecture 170, or CAD Technology 170, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## CAD TECHNOLOGY 172

CAD Technology IV
Advanced planning concepts and designs using computeraided systems; techniques of file handling, archiving, and plotting; drawing manipulations of translation and rotation to prepare for CAD system operation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CAD Technology 171, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## [CHEM] CHEMISTRY (073)

## CHEMISTRY 121

Basic Chemistry I
Principles of general inorganic chemistry, including properties of matter, dimensional analysis, fundamentals of stoichiometry, interpretation of the periodic table, nomenclature, and introduction to solution chemistry and commonly used concentration units. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for Mathematics 118 or higher.
2 lecture and 4 lab hours per week. 4 credit hours.

## CHEMISTRY 201

## General Chemistry I

Topics include the periodic table of the elements, atomic structure, basic concepts of quantum theory, bonding, stoichiometry of compounds and reactions, thermo chemistry, the gaseous state, basic concepts of the liquid and solid states, solutions, acids and bases. Writing assignments, as appropriate to discipline, are part of the course. Prerequisite: Eligibility for Mathematics 140 or higher, and a grade of C or better in Chemistry 121, or one year of high school Chemistry, or Consent of Department Chairperson. 4 lecture and 4 lab hours per week. 5 credit hours.

## CHEMISTRY 203

## General Chemistry II

Topics include equilibrium, acid-base equilibria, solubility equilibria, kinetics, thermodynamics, electrochemistry, coordination compounds, nuclear chemistry, and descriptive topics in organic chemistry. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Chemistry 201, or Consent of Department Chairperson.
4 lecture and 4 lab hours per week. 5 credit hours.

## CHEMISTRY 204

Quantitative Analysis
Gravimetric, volumetric, and calorimetric procedures; basic techniques of quantitative measurement applied to the determination of percentage composition, equilibrium constants, and the reliability of data. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Chemistry 203.
2 lecture and 6 lab hours per week. 5 credit hours.

## Course Descriptions

## CHEMISTRY 205

## Organic Chemistry I

Fundamentals of organic chemistry, orbital and structural theory, aliphatic and aromatic hydrocarbons, alkyl halides, and structural isomerism. Introduction to functional groups, nomenclature, stereochemistry, reaction mechanisms, resonance theory, and spectroscopy. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Chemistry 203, or Consent of Department Chairperson.
4 lecture and 4 lab hours per week. 6 credit hours.

## CHEMISTRY 207

Organic Chemistry II
Continuation of the study of organic chemistry: alcohols, and ketones, carboxylic acids, functional derivatives of carboxylic acids, $\mathrm{O}, \mathrm{N}$ and S containing compounds, heterocyclic compounds, and spectroscopy. Laboratory emphasis on organic synthesis and spectroscopic analysis. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Chemistry 205, or Consent of Department Chairperson.
4 lecture and 4 lab hours per week. 6 credit hours.

## CHEMISTRY 212

Survey of Organic and Biochemistry
Survey of organic chemistry, including nomenclature and reactions of major functional groups essential to biochemistry. An introduction to the structure and function of biomolecules, and the metabolism of proteins, lipids, and carbohydrates. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Chemistry 201, or Consent of Department Chairperson.
3 lecture and 3 lab hours per week. 4 credit hours.

## CHEMISTRY 217

## Introduction to Instrumental Analysis

Use of modern optical and electrical methods in chemical analysis; filter photometers; visible, ultraviolet and infrared spectrophotometer; gas chromatographs, radioactive counters, PH meters; potentiometers; refractometers; polarimeters; and polarographs. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Chemistry 201, and Chemistry 205, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## CHEMISTRY 219

Chemistry for Education I : Matter \& Structure
This course is designed to provide educators with a fundamental understanding of matters, its structure and its changes from both a qualitative and quantitative perspective. Physical properties, chemical interactions, bond, and the atomic structure of matter will be explored and mapped to state science education standards. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Student must be a certified middle-grade teacher, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## CHEMISTRY 220

## Chemistry for Education II :Energy \& Reactions

This course is designed to provide educators with a fundamental understanding of energy and chemical reactions from a qualitative and quantitative perspective. Solutions, chemical reactions, as well as elemental thermodynamic and kinetics will be explores and mapped to state science education standards. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, or English 100 with a grade of C or better, or Consent of Department Chairperson. Eligibility for Math 099 and Certified Teacher.
3 lecture and 2 lab hours per week. 4 credit hours.

## CHEMISTRY 295

## Independent Research In Chemistry I

Original laboratory research supervised by a faculty member, either on-campus or off-campus. A well defined academic goal must be outlined by the instructor and the student. This course will usually require library research, laboratory work, and the preparation of final and oral reports. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
1-2 lecture and 5-20 lab hours per week.
3-6 credit hours.

## CHEMISTRY 296

## Independent Research in Chemistry II

Original laboratory research supervised by a faculty member, either on campus or off-campus. A well defined academic goal must be outlined by the instructor and the student. This course will usually require library research, laboratory work and the preparation of final and oral reports. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Chemistry 295, or Consent of Department Chairperson.
1-2 lecture and 5-20 lab hours per week.
3-6 credit hours.

## COURSE DESCRIPTIONS

## CHEMISTRY 297

Independent Research in Chemistry III
Original laboratory research supervised by a faculty member, either on-campus or off campus. A well defined academic goal must be outlined by the instructor and the student. This course will usually require library research, laboratory work and the preparation of final and oral reports. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Chemistry 296, or Consent of Department Chairperson.
1-2 lecture and 5-20 lab hours per week.
3-6 credit hours.

## CHEMISTRY 298

Independent Research in Chemistry IV
Original laboratory research supervised by a faculty member, either on-campus or off-campus. A well defined academic goal must be outlined by the instructor and the student. This course will usually require library research, laboratory work and the preparation of final and oral reports. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Chemistry 297, or Consent of Department Chairperson.
1-2 lecture and 5-20 lab hours per week.
3-6 credit hours.

## CHEMISTRY 299

Independent Research in Chemistry V
Original laboratory research supervised by a faculty member either on-campus or off-campus. A well defined academic goal must be outlined by the instructor and the student. This course will usually require library research, laboratory work, and the preparation of final and oral reports. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Chemistry 298, or Consent of Department Chairperson.
1-2 lecture and 5-20 lab hours per week.
3-6 credit hours.

## [CHLD DV] CHILD DEVELOPMENT (090)

## CHILD DEVELOPMENT 100

Critical Reading in Child Development
Prepares students to read critically in the field of human development. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## CHILD DEVELOPMENT 101

Human Growth and Development I
Foundation course in the theory and principles of development, conception through early adolescence. Indepth study of physical, social/emotional, cognitive, and language development, including children's play. Fifteen hours of observations included. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101.
200 minutes per week. 4 credit hours.

## CHILD DEVELOPMENT 102

## Human Growth and Development II

Continuation of Child Development 101. Emphasizes adolescence through late adulthood. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## CHILD DEVELOPMENT 107

Health Safety and Nutrition
Knowledge and application of practices that promote good nutrition, dental health, physical and mental health, and safety of infants/toddlers, preschool and school-aged children in a group setting as well as that of the adult student. Health lifestyle, preventative health, community resources, and responding to emergencies are examined. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## CHILD DEVELOPMENT 109

Language Development
Techniques and methods of encouraging development of language and emerging literacy skills in young children with emphasis upon understanding the developmental process and how the preschool teacher can facilitate this process. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

## CHILD DEVELOPMENT 120

Intro to Early Childhood Education Group Care
An introductory course designed to familiarize students with the historic roots and philosophical foundations of child care and education. Knowledge of different types of early childhood programs, their basic values, structure, and organization. Examination of the student's personal qualities in relationship to expectations of the field. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## CHILD DEVELOPMENT 130

## Special Topics Child Development

Study of a single topic in child development that would enhance the student's ability to support children and the families of young children. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101, or Consent of Department Chairperson. Not more than an accumulated 4 credit hours will be counted toward graduation.
50 minutes per week. 1 credit hour.

## CHILD DEVELOPMENT 141

Activity Programming
Recreational and creative activities as factors which change patterns of behavior in children. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## CHILD DEVELOPMENT 142

Methods and Materials for Infant and Toddler Care
Acquaints current and prospective caregivers with the ways infant and toddlers play and learn at specific developmental levels. Through use of observations, students will plan to meet needs of individual children in a group setting. Emphasis will be on creating a context for responsive and respectful care giving in a group setting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## CHILD DEVELOPMENT 143

Science and Mathematics for Young Children
Study of young children's thinking in the areas of mathematics and science. Basic information about math and science concepts are considered including the application of developmentally appropriate practices with young children. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## CHILD DEVELOPMENT 144

School-Age Activity Programming
Designed to introduce the student to a basic understanding of the benefits of play and recreation for school-age children. Develops the basic skills to plan and implement developmentally appropriate activities for school-age children and adolescents. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## CHILD DEVELOPMENT 149

Creative Activities for Children
Designed to introduce the student to a variety of creative experiences that are developmentally appropriate for the young child. Includes planning and implementing activities that allow the child to explore and experiment with art, music, movement, and drama. Emphasis on allowing children freedom to choose and create at their own pace and style. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## CHILD DEVELOPMENT 201

Observation and Management of Child Behavior Theory and practice of techniques for observing and recording child behavior leading to an understanding of the individual child and developmentally appropriate positive methods of guiding behavior. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## CHILD DEVELOPMENT 205

## Development of the Exceptional Child

Study of children whose development does not follow normal patterns; problems of identification, diagnosis, and potential assessment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## CHILD DEVELOPMENT 225

Supervision of the Exceptional Child
Techniques in handling and communicating with the deaf, blind, developmentally delayed, and physically challenged child. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 205. 150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## CHILD DEVELOPMENT 228

Principles of Child Care Practice
Role of the child care worker in group/residential settings; primary objectives and goals; re-examination of child rearing responsibilities in light of treatment goals. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101.
150 minutes per week. 3 credit hours.

## CHILD DEVELOPMENT 229

Practicum in Residential Child Care
Twenty hours per week of professional, and supervised training in a Child Care Treatment Program; includes twohour weekly seminar. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of all required Special Education or Residential Child Care courses, or Consent of Department Chairperson. May not be taken concurrently with Child Development 228.
2 lecture and 20 lab hours per week. 6 credit hours.

## CHILD DEVELOPMENT 230

## Introduction to Early Intervention

Introduction to the field of early intervention and the role of the Early Intervention Associate. Includes units covering the background and current status of the field, an overview of the characteristics of normal versus at-risk and special needs of infants and toddlers, and theoretical models and strategies of early intervention, including Individualized Family Service (IFS) planning and team building. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## CHILD DEVELOPMENT 248

Principles and Practice of Infant and Toddler Care
Acquaints prospective teachers and care-givers of infants and toddlers with theory and practice of care and education of very young children in a group setting. Writing assignments, as appropriate to the discipline, are part the course. Prerequisite: Child Development 101, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## CHILD DEVELOPMENT 257

Principles and Practices of Family Child Care
An overview of operating a family child care home that meets the physical, socio-emotional, and cognitive development needs of children (infant through school-age) in a home child care setting. Includes the place of family child care in the early childhood profession, home arrangement, and activity planning, including age appropriate activities and goals and ways to meet the needs of multiple age groups. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## CHILD DEVELOPMENT 258

Principles of Preschool Education
Theory and practice of early childhood education, emphasizing developmentally appropriate curriculum program planning, learning environment, and the role of the teacher as facilitator. Field experience of three hours per week in an early childhood program required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Child Development 101.
200 minutes per week. 4 credit hours.

## CHILD DEVELOPMENT 259

Practicum in Pre-School Education
Students spend 300 hours per semester under supervision, working with preschool children in a nursery school or day care program, for: 8 or 16 weeks, including a 2 -hour weekly seminar. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 258 with a grade of C or better, or Consent of Department Chairperson.
2 lecture and 10-20 lab hours per week.
3-6 credit hours.

## CHILD DEVELOPMENT 260

Administration and Supervision of Preschool Centers For those with experience as teachers or directors of nursery schools or day care centers who wish to improve their skills in administration and supervision. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## CHILD DEVELOPMENT 262

Child, Family and Community Relations
For students currently employed or preparing to work in child care settings. This course will help students to establish and maintain positive and productive working relationships with families within the context of the urban community to benefit the well being of the growing child. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## CHILD DEVELOPMENT 268

Principles and Practice of School Age Programs
Designed to introduce the student to the principles of developmentally appropriate practice in a school-age group setting. The student will review the developmental stages of school-age children in the social, emotional, physical and cognitive domains and apply these principles to the design and establishment of the physical environment, program scheduling, health and safety practices, and group management. Techniques for parental involvement will be included. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test and grade of C or better in Child Development 101.
200 minutes per week. 4 credit hours.

## CHILD DEVELOPMENT 269

Practicum in School Age Child Care
Students spend 20 hours a week, under supervision, working with children in a school-child care setting; 17 weeks with a 2 hour seminar. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, or English 100 with a grade C or better, or Consent of Department Chairperson.
2 lecture and 20 lab hours per week. 6 credit hours.

## CHILD DEVELOPMENT 299

Special Topics Child Development
Special topics in Child Development or Early Childhood Education will be discussed. New developments such as the latest brain research and its implication to working with children will be emphasized. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times when topics are different, and may count for a maximum of four variable credits. Consent of Department Chairperson required for repeatability. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
50-200 minutes per week. 1-4 credit hours.

## [CHINESE] CHINESE (141)

## CHINESE 101

Introduction to Chinese
This course introduces the basic elements of Mandarin Chinese in order to develop communicative language skills, basic conversational skills, as well as grammar and vocabulary knowledge in Chinese. Intensive drills on sounds and tones, vocabulary, and sentence patterns in meaningful contexts will be used in order to communicate appropriately and accurately in authentic contexts. Introduction to the diverse culture, history, and social etiquette of China. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## CHINESE 102

## Chinese II

This course is designed for students who have acquired some oral proficiency, but lack formal training and literacy. It teaches more advanced grammar rules while reviewing the basic ones. Students will learn how to use a bilingual dictionary to assist their reading of essays and short stories. They will learn to write notes, letters, and paragraphs. The course will introduce students to the diverse culture, history, and social etiquette of China. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Chinese 101, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## CHINESE 103

## Chinese III

This course is designed for students who have acquired some oral proficiency and basic grammar rules of Mandarin Chinese. It will emphasize four skills: speaking, listening, reading, and writing in culturally authentic situations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Chinese 102, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## CHINESE 104

Chinese IV
This course provides intensive work in the use of Mandarin Chinese through listening, speaking, reading, and writing and through continued enhancement of the cultural awareness intrinsic to those four skills. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Chinese 103, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## Course Descriptions

CHINESE 198
Study Abroad: Intensive
To prepare students to fully participate in and benefit from the Study Abroad program in China, this course will cover two major aspects of the Chinese studies: culture and language. Students will work collaboratively to discuss different topics about China and learn to speak conversational Chinese in an appropriate manner. Writing assignments as appropriate the discipline, are part of the course. Prerequisite: Grade of C or better in Chinese 101.
100 minutes per week. 2 credit hours.

## CHINESE 199

## Study Abroad: Immersion

This course will bridge the content delivered in Chinese 0198 and provide total immersion in Chinese language and culture. This specially designed course consists of two parts: a preand post- set of sessions in Chicago and two week immersion language program in Xi'an, China. The language program in China, to be delivered by Xi'an International Studies University, will consist of 6-hour daily sessions, Monday through Friday. Writing assignments as appropriate the discipline, are part of the course. Prerequisite: Grade of C or better in Chinese 198. 200 minutes per week. 4 credit hours.

## [CMMEDIA] COMMUNICATION MEDIA (004) <br> (also see Media Communications 011)

## COMMUNICATION MEDIA 161

## Beginning Photography

An introduction to black and white photography as an art medium, including the basics of camera and darkroom techniques and relevant aesthetic, historic, and critical issues. Writing assignments, as appropriate to the discipline, are part of the course.
6 lab/studio hours per week. 3 credit hours.

## COMMUNICATION MEDIA 162

## Photography of Persuasion

Advanced photography darkroom skills; past and present use of photography in persuasion as in advertising and political campaigns; different approaches in magazine and newspaper advertising employing photographs. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Communication Media 161, or Art 115, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMMUNICATION MEDIA 163 <br> Film Rhetoric

Introductory film making skills, both camera and editing; film viewing designed to cultivate students' understanding of how films affect them; includes terminology, effects of film on people, how these effects are achieved, and concepts of criticism and advertising. Writing assignments, as appropriate to the discipline, are part of the course.

## 150 minutes per week. 3 credit hours.

## COMMUNICATION MEDIA 167 <br> Digital Photography

A course for photographers and photography students, exploring applications of digital photography in the field of photography. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## [RELIGN] COMPARATIVE RELIGION (133)

## COMPARATIVE RELIGION 101

## Introduction to Religion

Introduction to the nature, origin, beliefs, practices, and development of religion in society. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## COMPARATIVE RELIGION 102

## The Bible Hebrew Old Testament

The study of the Old Testament with an emphasis on historical, cultural and intellectual settings; literary characteristics; and the scholarship related to its various translations and interpretations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPARATIVE RELIGION 103

## The Bible New Testament

The study of the New Testament, with an emphasis on historical, cultural, and intellectual settings; literary characteristics; and the scholarship related to its various translations and interpretations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

COMPARATIVE RELIGION 104
Islamic Scriptures: The Qur'an
The study of the Qur'an with an emphasis on its historical, cultural, and intellectual settings; literary characteristics; and the scholarship related to its various translations and interpretations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPARATIVE RELIGION 106

Comparative Religion I/Eastern Religion
Comparison and investigation of major Eastern religions. Includes origins, rituals, religious knowledge and destiny. This course concentrates on the religions of the Eastern world. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPARATIVE RELIGION 107

Comparative Religion II/ Western Religion
Comparison and investigation of major Western religions. Includes origins, rituals, religious knowledge and destiny. This course concentrates on the religions of the Western world. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPARATIVE RELIGION 108

## Religion and Psychology

The study of the relationship between religion and psychology. Includes the similarities between religious and psychological phenomena; ways religion and psychology shape and influence one another; and how human needs are met through the blending of religious and psychological experiences. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

COMPUTER AIDED DESIGN
(see CAD Technology) (049)

## [CIS] COMPUTER INFORMATION SYSTEMS (032)

COMPUTER INFORMATION SYSTEMS 101
Introduction to Computer Information Systems
Theory and application of computers in information management; career opportunities, problem solving techniques, input/output media, microcomputer applications, and Internet applications. Writing assignments, as appropriate to the discipline, are part of the course. (Laboratory hours to be arranged.) Prerequisite: Placement Test, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 102

Introduction to Programming Logic
Techniques and problem-solving aids necessary for efficient solution of computer programming problems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 103

Introduction to BASIC Language
The most simplified of all computer languages. How to use the BASIC language in solving problems in mathematics, science, business and other fields. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, and Math 099 or higher, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 106

Introduction to Fortran
Programming in FORTRAN for solving problems in mathematics, science, economics, business, research, and statistics. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 101, or Math 140, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

COMPUTER INFORMATION SYSTEMS 107 Introduction to Pascal
Programming in PASCAL for solving typical businessrelated problems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 099 or higher, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

## COMPUTER INFORMATION SYSTEMS 111

## Computer Operations

Operation and routine maintenance of central processing unit; peripheral devices; initial program load; system utilities; and system scheduling. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 101, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## COMPUTER INFORMATION SYSTEMS 112

## Advanced Computer Operation

Operating system concepts; program resources and their allocations, job scheduling, exception handling, set-up. Relationship between operating system, hardware and user program, time sharing, and teleprocessing. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 111.
2 lecture and 4 lab hours per week. 4 credit hours.

## COMPUTER INFORMATION SYSTEMS 116 Introduction to Operating Systems

An overview including a theoretical and practical framework for the study of controlling software in the microcomputer environment using prevailing cooperating systems. Concepts of interrupt handling, scheduling and query techniques, and access and storage methods. Writing assignments, as appropriate to the discipline, are part the course. Not more than three credit hours will count towards the CIS/IT degree requirements. Additional earned credits up to six will be counted towards elective credit and requires the Consent of the Department Chairperson. 150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 120

## Introduction to Microcomputers

Fundamental concepts of computer information systems as applied to microcomputers in business and personal use; includes hands-on experience with a variety of microcomputer software. Writing assignments, as appropriate to the discipline, are part of the course. Not more than three credit hours will count towards the CIS/IT degree requirements. Additional earned credit hours up to six will be counted towards elective credit and requires the Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 122

Introduction to Word Processing on Microcomputers
In-depth concepts of word processing as they apply to microcomputers in business and personal use. Laboratory assignments provide hands-on experience with microcomputer word processing software. Writing assignments, as appropriate to the discipline, are part of the course. Not more than three credit hours will count towards the CIS/IT requirements. Additional earned credit hours up to six will be counted towards elective credit and requires the Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 123

Introduction to Spreadsheets on Microcomputers
Fundamental concepts of computer programs as exemplified in the electronic spreadsheet. Emphasis on business applications and personal financial management and tax preparation. Writing assignments, as appropriate to the discipline, are part of the course. Not more than three credit hours will count towards the CIS/IT degree requirements. Additional earned credit hours up to 6 will be counted towards elective credit and requires the Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 130

Introduction to Assembler Programming
Writing programs demonstrating use of assembler language. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 103, and CIS 135, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 135

Introduction To COBOL Programming
Writing programs in COBOL for typical business problems. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 142

## Introduction to C or C++ Language

Fundamentals of structured problem-solving in C language: emphasis on syntax, data types, operators, control structures, functions program structure, pointers, arrays, input, and output; students will complete programs of moderate size and complexity. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 103, or CIS 106, or CIS 107, or CIS 130, or CIS 135, and Math 099 or higher, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## Course Descriptions

## COMPUTER INFORMATION SYSTEMS 144

Introduction to Java Programming Language
A block-structured high-level programming language commonly used in internet applications, including procedural and data abstraction programming styles; the concepts of design, testing, and documentation in programming, programming platforms, and software developments; selection, repetition, and sequence control structures; the basic programming elements of arrays, records, and files. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 142 with a grade of C or better.
2 lecture and 2 lab hours per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 145

Introduction to Database on Microcomputers
In-depth concepts of database as they apply to micro computers in business and personal use to build information management systems. The network, hierarchical, and relational models are discussed. DBMS on microcomputers are used for lab assignments to implement the rational models. Writing assignments, as appropriate to the discipline, are part of the course. Not more than three hours will count towards the CIS/IT degree requirements. Additional earned hours up to six will be counted towards elective credit and requires the Consent Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 158

## Beginning Internet

The basic concepts and usage of the Internet. Emphasis on the access of information from and development of HTML documents for the World Wide Web. Consideration will also be given to other Internet protocols (Gopher, FTP, Email, and Usenet) and to the principles and terminology relevant to networking in general. Writing assignments, as appropriate the discipline, are part of the course. Prerequisite: CIS 101, or CIS 120, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 171 <br> Computer Mathematics

Survey of numbers systems, conversion of one number system into another; fundamental operations of binary, octal, and hexadecimal arithmetic. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 099, or Math 140.
50-200 minutes per week. 1-4 credit hours.

## COMPUTER INFORMATION SYSTEMS 181

Web Development I/Basic Web Technologies
Emphasis on web site architecture, layout structure, template development, documentation and form development, including the development of a basic template for a data driven web site. Style sheets will be used to organize and present page content. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 116, or CIS 120, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 182

Web Development II/Client Side Scripting
Continuation of CIS 181. Focus on client side scripting to verify data entry, manipulation and control of web page elements, and storage of information on the client machines using cookies, including methods for initiating user authentication. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 181, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 191

Introduction to E-Commerce
Survey ofmethodsusedtoimplementcommercialtransactions on the Internet. Approaches to be studied include low-cost secure order taking to real-time credit care processing and order fulfillment. Students implement an online e-commerce system. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 158, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 203

Advanced Basic Programming
Event-driven programming using the Visual Basic programming language. Includes algorithm development, structured design and file processing, and the use of various controls including control arrays, exception handling, and the use of multiple forms. Introduces database manipulation using Microsoft Access and database controls. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 103, and CIS 106, or CIS 142, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

COMPUTER INFORMATION SYSTEMS 235
Advanced COBOL Programming
Building on prior COBOL experience, structured programming design, implementation, testing, and documentation using COBOL, including arrays, records, string processing and files, and direct access file techniques, control break logic, master file update, sorting, and searching techniques, and interactive programming. Program linkage and parametric processing. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 135, and CIS 142, or CIS 106, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 242

Advanced C or C++ Language
Building on prior programming experience, design and implementation of large-scale programs; abstract data types; and data structures: sets, pointers, lists, stacks, queues, trees, graphs. Program verification and complexity, recursions, and dynamic concepts: memory, scope, block structures. Text processing and introduction to searching and sorting algorithms. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 142, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 244

Advanced Java Programming Language
Use of Internet programming language for design and implementation of large-scale problems; management of abstract data types; data structures (files, sets, pointers, lists, stacks, queues, trees, graphs); program verification and complexity; recursion; dynamic concepts (memory scope, block structures); text processing; introduction to searching and sorting algorithms, including programming for computer graphics and animation and implementation for Internet usage. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 144 with a grade of C or better.
2 lecture and 2 lab hours per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 250

## Introduction to Systems

Analysis and design of information systems; includes analysis of organization and procedure, forms and workflow, equipment selection, and implementation of systems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 244 with a grade of C or better.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 251

Introduction to Database Management Systems
Examination of data manipulation needs and comparison of traditional processes for meeting needs with data base approach; use of computer simulations to practice and a apply database management system (DBMS) techniques. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 255

Introduction to Operating Systems
An overview of general principles and specific applications of operating system on various computers. A theoretical and practical framework for the study of controlling software, including concepts of interrupt handling, multi-programming, multi-processing, scheduling and query techniques, and access and storage methods Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 257

Introduction to Business Telecommunications
Study of the basic principles that apply to the general design of business telecommunication systems; covers appreciation for the scope of these systems and a logical approach to solving communications problems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 258

## Advanced Internet

Extends introductory concepts of CIS 158, using a variety of Internet and general networking concepts, including interactive forms and CGI programming for the World Wide Web, multimedia development, Intranets, server installation and management, and database connectivity, and administer a simple website. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 158, or CIS 257, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

COMPUTER INFORMATION SYSTEMS 260
Computer Information Systems Field Project
Provides students with practical application of data processing skills by participation in a planned and coordinated field project. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 265

## Computer Information Systems Internship

Students gain data processing experience by working at an appropriate and supervised work-training station. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson.
2 lecture and 5 lab hours per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 280

## Computer Graphics

Tips, techniques, and advice for creating professional business presentations using text, bullets, tables, pie and bar charts, templates and clip art. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 120, and Visual Communications 122, or Consent of Department Chairperson.
1 lecture and 4 lab hours per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 281

Web Development III/ Server Side Programming
Continuation of the CIS 182. Part III presents dynamic web programming using server side programming techniques. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 182, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## COMPUTER INFORMATION SYSTEMS 282

Web Development IV/Web Database Integration
Part IV integrates all of the skills, using basic markup, a scripting language and server-side programming and focuses on the integration of databases into a web site. Retrieval, storage, modification, and presentation of data from a database. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 281, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

COMPUTER INFORMATION SYSTEMS 299
Special Topic Computer Information Systems
Special topics in CIS will be discussed along with appropriate lab and/or field trip activities. New developments will be emphasized, especially materials useful in K-12 education and industry. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times when topics are different, and may count for a maximum of four variable credits. Consent of Department Chairperson required for repeatability. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
50-200 minutes per week. 1-4 credit hours.

## [COMPSFI] COMPUTER SECURITY AND FORENSIC INVESTIGATION (162)

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 101 <br> General Technology Essentials

This course is a basic requirement for the Computer Security and Forensic Investigation certificate program/ plan 297. Explores the basic areas of knowledge necessary to understand information security architecture and lay a firm foundation for further study and coursework. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 102

Introduction to Information Security
This course is one of the requirements for Computer Security and Forensic Investigation certificate program/ plan 297. Explores the importance of protecting information for the individual as well as the corporate and government sectors. Provides an overview of the principles and practices of information security. Introduces security systems and monitoring procedures, and some of the critical elements in both. Provides an overview of the current trends in information security, the challenges faced when attempting to build a secure security system, and the possible countermeasures to intrusions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

# Course Descriptions 

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 103 <br> Introduction to Network Security

Provides comprehensive study of network and computer security, network security concepts and techniques with emphasis on hands on experience, including basic security principles, establishing security baselines, and the most recent attack and defense techniques and technologies and. In addition, this course discusses establishing security policies and procedures, and managing security efforts. Writing assignments, as appropriate to the discipline, are part of the course.
3 lecture and 2 lab hours per week. 4 credit hours.

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 109

## Network Systems Security

Designed for the novice networking student and covers all types of networks, encouraging new users to feel confident in moving onto a network course of study while obtaining the skills necessary to perform hands-on network installations, network system security, and basic troubleshooting for home, small business, and large enterprise networks. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101, and CIS 101, or CIS 120 with a grade of $C$ or better, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 200

Network Emergency Management
A comprehensive study of contingency planning for network technology systems to recover network services following an emergency, system disruption, natural disaster or terrorist attack. Principles apply equally well to homeland security emergency management. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101, and grade of C or better in CIS 101, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 202 Introduction to Cybercrime

This course is one of the requirements for Computer Security and Forensic Investigation Certificate program/plan 297. This course is designed to introduce various types and levels of cybercrime, the far-reaching consequences of such crime, and some recovery measures. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: COMPSFI 101, and COMPSFI 202.
150 minutes per week. 3 credit hours.


#### Abstract

COMPUTER SECURITY AND FORENSIC INVESTIGATION 203 Financial Cybercrime This course is one of the requirements for Computer Security and Forensic Investigation certificate program/plan 297. Explores the various types of economic cybercrime, the far-reaching consequences of such crime, and some recovery of countermeasures. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: COMPSFI 102, and COMPSFI 202. 150 minutes per week. 3 credit hours.


## COMPUTER SECURITY AND FORENSIC INVESTIGATION 204

Introduction to Computer Forensics and Law
This course is one of the requirements for Computer Security and Forensic Investigation certificate program/plan 297. Designed to provide an introduction to the world of computer forensics and the attendant legal issues concerning privacy and electronic evidence. Explores computer forensics as the science of collecting, preserving, and analyzing data from computers so they can be admissible at a company discipline hearing or in a court of law. Surveys problems of maintaining a secure technological environment, protecting the identity of individuals, as well as protecting confidential information. In addition, it will introduce techniques used in the collection and analysis of evidence. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: COMPSFI 102, and COMPSFI 202.
150 minutes per week. 3 credit hours.

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 205 <br> Computer Forensics Technology

This course is one of the requirements for Computer Security and Forensic Investigation certificate program/plan 297. A continuation of COMPSFI 204. An in-depth, handson analysis and practice of computer forensics investigation techniques, technology, and procedures in a setting that simulates a real network environment. Demonstrates how to manage investigations from start to finish, how to use computer forensic technology to conduct such investigations, and how to present collected information to attorneys and courts. Follows six areas in computer forensic investigation: strategy, documentation techniques, use of technology, industry procedures, courtroom techniques, and enforcement developments and trends. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: COMPSFI 203, and COMPSFI 204.
6 lab hours per week. 3 credit hours.

## Course Descriptions

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 206 <br> Internet Vul./Cr.Act./Inves. Proc.

This course is one of the requirements for Computer Security and Forensic Investigation certificate program/ plan 297. An overview of appropriate, lawful investigative procedures for the collection, documentation, preparation and presentation of evidence from internet cybercribe investigations. The lab course focuses on the areas of search and seizure, the use of some evidence analysis presentation software, and other appropriate software tools. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 158, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 209

## Network Defense

Network Defense has been designed to map the primary emphasis on intrusion detection and forensics, but also covers such essential practices as developing a security policy and then implementing that policy by performing Network Address Translation, setting up packet filtering, and installing proxy servers, firewalls, and virtual private networks. Provides the essential skills knowledge and experience necessary to deal with computer and network attacks, detect hackers before damage is inflicted, and reduce the effects of viruses and worms across a network. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101, and a grade of C or better in CIS 101, or CIS 120, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 213

Information Security Technology
Provides a hands-on review and analysis in a laboratory environment of the following six major areas of information security technology: firewalls, intrusion detection, virus detection, encryption, authentication/authorization, and trending/tracking/logging/ analysis. Provides an understanding of each technology on a conceptual level as well as understanding of specific technology brands. Demonstrates how to build and manage a complete information security architecture within a corporate computing environment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: COMPSFI 102, and COMPSFI 202.
6 lab hours per week. 3 credit hours.

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 214

Information Security Systems Analysis
This course is one of the requirements for Computer Security and Forensic Investigation certificate program/plan 297. Continuation of COMPSFI 103. Identification of classes of security systems and monitoring procedures. Introduces security and monitoring procedures and critical elements of effective security systems. Provides an overview of the challenges faced when attempting to build a secure security systems, and explores possible counter-measures to intrusions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, and CIS 120, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 215 <br> Information Security Domain

An overview of the critical information security domains. The Common Body of Knowledge (CBK) in information security is extensive and requires a thorough understanding of the security discipline or domains. This course will cover what each domain is, what area it encompasses, and how it is integral to the information security process. Provides an excellent preparation for those who wish to pursue certification as an information security professional. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: COMPSFI 213.
150 minutes per week. 3 credit hours.

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 216

Information Security Program Management
This capstone course is one of the requirements for Computer Security and Forensic Investigation certificate program/ plan 297. Explores the critical areas of security policies and procedures that govern how an institution views the importance, often underestimated, of securing the network environment and the relationship between those policies and procedures and the network security layers that need to be protected. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: COMPSFI 201, and COMPSFI 214.
150 minutes per week. 3 credit hours.

# Course Descriptions 

## COMPUTER SECURITY AND FORENSIC INVESTIGATION 221

## Network Forensics

Presents methods to properly conduct a network forensics investigation, explores the preventions for network from being used to commit crimes and record crimes. Students gain practical knowledge in conducting digital investigations and preserving evidence that stands up in court or corporate inquiries. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101, and CIS 101, or CIS 120 with a grade of C or better, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## [432CMGT] CONSTRUCTION MANAGEMENT

## 432CMGT 601 <br> Introduction to Construction

The course is designed to give the student a foundation in the basic concepts of construction. The course focuses on the fundamental skills needed in the industry for the core construction class; industry related terminology, construction processes and procedures, scale reading, applying construction calculation, measuring, tools and usage, and industry job descriptions. Writing assignments, as appropriate to the discipline, are part of the course. 100 minutes per week. 2 credit hours.

## 432CMGT 602

Methods of Bldg Construction
The course is designed to develop an understanding of the methods of construction of residential and commercial type building and includes a survey of different types of construction and their advantages and limitations. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## 432CMGT 603

Bldg Materials and Testing
Examination of the characteristics of materials such as wood, masonry, concrete, iron, and steel relative to their basic use in the construction industry. The physical properties of each will be studied relative to actual in-service behavior. This course is an introduction to the field and laboratory methods of testing soils, concrete, and steel. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## 432CMGT 604

Blueprint and Specifications
Designed to provide proper knowledge of blueprints reading as it relates the architectural or building construction industry. The course covers the theory of orthographic projections, reading floor plans and elevations drawings, symbols and notations, scaling and dimensioning practices, reading blueprints of structural information, electrical and mechanical trade drawings. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## 432CMGT 605

Construction Cost Estimating
This course is designed to provide the students with a basic introduction to the methods of construction, estimating and developing the associated costs. Students will gain a working knowledge of materials takeoffs, the estimating process, building and estimating spreadsheets, unit cost, assembles for different trades, overhead and profit. Manual and computer approaches to solving estimating problems will be used. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 432CMGT 604, and CIS 120.
2 lecture and 2 lab hours per week. 3 credit hours.

## 432CMGT 606

Construction Contracting Specs
Introduction the functions and operations of a construction office, including bidding, construction contracts and specifications, bonds and insurance, labor law and labor relations. Legal aspects and interpretation of contracts and specifications. This course is designed to give the student a general working knowledge of the various types of contracts, specification, and delivery methods. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 432CMGT 604.
2 lecture and 2 lab hours per week. 3 credit hours.

## 432CMGT 607

## Construction Scheduling/Mgmt

An introduction to the methods of construction scheduling and project management. Students will become familiarized with using different scheduling approaches, how to handle worksite paperwork, and to plant the need for manpower, materials, and equipment coordination with the project budget. The course will use manual and computer approaches to solving scheduling programs. Discussion and critical path methods (CPM) and analysis are included in the course. . Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 432CMGT 604, and CIS 120.
2 lecture and 2 lab hours per week. 3 credit hours.

## Course Descriptions

## 432CMGT 608

## Project Management

This course is designed to provide the student with a basic understanding of the process of a construction project and provide the tools that are necessary to estimate or manage a construction project. . Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 432CMGT 604, and 432CMGT 607 and CIS 120.
2 lecture and 2 lab hours per week. 3 credit hours.

## 432CMGT 609

## Construction Safety II

This course covers thirty (30) hours of training, required by the Occupational Health and Safety Act (OSHA) that apply toward the 30-hour Construction Industry course completion card. The course covers topics pertaining to regulations covered by Standard 28 CFR 1926. Upon successful completion of the course, participants will receive an OSHA construction safety and health 30-hour course completion card from the Department of Labor. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## 432CMGT 610

## Construction Internship

This course is designed to give the student the practical application of current construction methods. There will be a variety of projects from the residential and commercial sectors. The sites selected will vary due to availability and weather. Prerequisite: Consent of Department Chairperson. Writing assignments, as appropriate to the discipline, are part of the course.
15 lab hours per week. 3 credit hours.
[COOP EX] COOPERATIVE WORK EXPERIENCE (008)

## COOPERATIVE WORK EXPERIENCE 101

## Cooperative Work Exploration

Career planning, job entry skills, guidance to assist students in exploring and evaluating their interests, aptitudes and abilities for consideration of career goals; development of skills necessary for job search success, and job entry preparation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Credit or concurrent enrollment in English 100, or English 127, and Reading 125, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## Cooperative Work Experience

The Cooperative Education courses listed below are designed to provide employment skills as a concurrent and integral part of a student's educational program in a number of career areas. Students are placed in an approved employment situation mutually agreed upon by the student, college staff, and employer, with the opportunity of applying knowledge and being exposed to work methods unavailable in the classroom.

College staff members develop with each student a written educational plan, including performance-based measurable objectives. Guidance and supervision are regularly provided by college staff members who visit students at work and confer with the employer, measure progress, and work out any concerns. Follow-up seminars with the staff may be scheduled for up to two hours per week.

Cooperative Work Experience (CWE) 105 and 205 Business Technologies
Cooperative Work Experience (CWE) 106 and 206 -
Commercial-Data Processing CWE
Cooperative Work Experience (CWE) 107 and 207 Health
Cooperative Work Experience (CWE) 108 and 208 Engineering and Industrial Technologies
Cooperative Work Experience (CWE) 109 and 209 Natural Science Technologies
Cooperative Work Experience (CWE) 110 and 210 -
Public and Human Services

## COURSE DESCRIPTIONS

Students are assigned a job directly related to their academic program/plan, which will enhance educational goals without infringing upon course and program/plan obligations. Academic credit during the regular semester is awarded on a ratio of 1 semester hour of credit to each 5 hours of approved employment per week for part time employment up to 20 hours per week, with a maximum of 4 semester hours credit for the work component. Academic credit for full time employment is awarded on a ratio of 1 semester hour of credit for each 10 hours of approved employment with a maximum of 4 semester hours of credit for the work component. If offered in conjunction with the work component, 1 semester credit hour is awarded for each seminar hour per week up to a maximum of 2 semester credit hours.

In total, variable credit may be acquired depending on the number of hours on the job and the extent of followup seminars, up to a maximum of 3 hours for the summer term or 6 hours during the fall or spring semester. During the summer term, which is one-half the length of the fall or spring semester, semester hours of credit are awarded for credit earned in approved employment. Seminars, if offered, require two hourly meetings per week for one semester hour of credit to a maximum of 1 semester hour of credit. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson. Enrollment in an approved program/plan. Completion of a minimum of 12 semester hours or equivalent courses (those required for the major field of study) in the student's major prior to or taken concurrently with such program/plan. No more than 12 semester hours of credit in work experience will be accepted for graduation.

## [CRM JUS] CRIMINAL JUSTICE (080)

## CRIMINAL JUSTICE 102

## Administration of Criminal Justice

Operation of the agencies of criminal justice: police, prosecution, courts, correctional institutions, probation and parole. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## CRIMINAL JUSTICE 114

## Administration of Juvenile Justice

Studies in the etiology of juvenile delinquency, analysis of the agencies of control of juvenile behavior, and the roles of courts and correctional institutions in the administration of juvenile justice. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## CRIMINAL JUSTICE 151

Practice of Probation and Parole
Development, philosophy, organization and administration of probation and parole; survey of principles, investigation, supervision, treatment and utilization of community resources to rehabilitate and reintegrate the offender into society. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## CRIMINAL JUSTICE 155

## Introduction to Corrections

This course covers the history and development of corrections at the local, state, and federal levels with emphasis on the goals, structure, and operations of correctional institutions. Included are alternatives to incarceration and the future of corrections within the American criminal justice system. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Criminal Justice 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## CRIMINAL JUSTICE 170

Scope and Purpose of Private Policing
Study of private policing as an extension of law enforcement in business, industry, or mercantile establishments; applications within civil law enforcement; role of the security officer; analysis and development of U.S. public and private policing. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## Course Descriptions


#### Abstract

CRIMINAL JUSTICE 172 Management and Supervision for Private Policing Study of police supervisory and management principles; concepts of organization, communication, planning and human relationships.Analysis of problems and responsibilities in private security for middle-management; role of the security director from behavioral standpoint. Writing assignments, as appropriate the discipline, are part of the course. 150 minutes per week. 3 credit hours.


CRIMINAL JUSTICE 173
Issues and Problems of Private Policing
Analysis of current issues and occupational aspects of private policing; implementation of federal, state, and local government recommendations applied to private policing. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## CRIMINAL JUSTICE 174

Law For Private Police
Survey of criminal law and applications for the private police industry; substantial criminal law, rules of evidence, criminal court procedures, court presentation; analysis of current civil court actions relating to private security. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

CRIMINAL JUSTICE 202
Issues In Criminal Justice
Critical issues related to crime and urban society; analysis and evaluation of documents in the field of Criminal Justice. Consideration of newly proposed reforms and the method of implementing these reforms. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## CRIMINAL JUSTICE 210

Industrial Security for Private Police
Industrial security related to the operation of private industrial security force; functions of industrial security; corporate objectives protection plans, and the key components of industrial security analyzed as they relate to employee control, industrial espionage, fire prevention, and bomb incident management. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## CRIMINAL JUSTICE 211

Introduction to Investigation
Intensive study and analysis in investigative procedures; strategy, and tactics of obtaining and analyzing evidence through testimonial evidence, physical evidence, and records; reconstructing the crime; preservation of evidence and case preparation. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## CRIMINAL JUSTICE 215

## Terrorism

Detailed study of terrorism, counter terrorism, terrorist personalities, and terrorist groups, including types,tactics, and trends on a worldwide scale as well as domestically. Examines the issues of prevention, civil liberties, nation building, and homeland security. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## CRIMINAL JUSTICE 221

## Police Organization and Management

Police organization as a means by which police goals are achieved. Variations in organizational patterns resulting from differing and changing objectives of police service. Analysis and evaluation of urban law enforcement problems and procedures. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## CRIMINAL JUSTICE 222

Professional Responsibility
Examination of professional ethics and legal responsibilities of the criminal justice practitioner; principles and techniques of stress management for maintenance of performance and health. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## CRIMINAL JUSTICE 234

## Criminal Law and Procedure

Analysis of the nature of substantive criminal law, with emphasis on its historical and philosophical development in the United States. Examination of constitutional rights of the defendant, as these relate to arrest, rules of evidence, and courtroom procedure at pre-trial and trial level. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## Course Descriptions

CRIMINAL JUSTICE 250
Introduction To Criminology
This course covers the basics of criminology, criminological theories, principles and concepts, and the history and development of criminology. Included is the study of society's reaction to crime and criminals as well as those organizations and agencies designed to combat crime. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Criminal Justice 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## CRIMINAL JUSTICE 256

## Constitutional Law

Study of the Fourth, Fifth, Sixth, Eighth and Fourteenth Amendments to the United States Constitution, as these govern police and court procedures and the rights of citizens. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [330CUL] CULINARY

## 330CUL 577

Reading for Information
This course is designed to provide skills necessary to analyze reading materials effectively. Writing assignments, as appropriate to the discipline, are part of the course.
50 to 150 minutes per week. 1-3 credit hours.

## 330CUL 701

## Introduction to Food Service I

Introduction to the food service industry (history, organization and future challenges); career opportunities; standards of professionalism; instruction in principles and procedures of basic equipment and its use; basic food and kitchen safety; beginning fundamentals of cooking. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 100, and Reading 125, and Math 098; concurrent enrollment in 330CUL 703, and 330CUL 705 and 330CUL 708. 150 minutes per week. 3 credit hours.

## 330CUL 703

Food Sanitation and Safety I
Topics will include prevention of food-borne illness, HACCP procedures, facility sanitation, legal guidelines, kitchen safety, and safe food preparation, storing, and reheating guidelines. The National Restaurant Association ServSafe examination will be a part of this course. Students who pass the exam will receive the ServSafe certification. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 100, and Reading 125, and Math 098; concurrent enrollment in 330CUL 701, $330 C U L 705$, and 330CUL 708
50 to 100 minutes per week. 1- 2 credit hours.

## 330CUL 705

Chef's Training I-Section A
Designed to give the student the opportunity to investigate and evaluate culinary arts as a possible career goal. It covers basic mise en place including knife skills, proper station set-up, classical cooking terminology, standard cooking methods, stock preparation, sauce preparation, and heat transfer methods. Develops the basic skills necessary for employment as food service professionals, emphasizing professionalism and team work as a basic element for success. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 100, and Reading 125, and Mathematics 098; concurrent enrollment in 330CUL 701, and 330CUL 703 and 330CUL 708.
1 lecture and 9 lab hours per week. 4 credit hours.
330CUL 706
Chef's Training II-Section A
Introduces Garde Manager - cold kitchen techniques including production of soups, salads, sandwiches, sausages, terrines, pates, galantines, cheese, hors d'oeuvres, canapés, appetizers, condiments, pickles and breakfast items. Includes sanitation as it applied to cold food preparation, the equipment in the Garde Manager kitchen and garnishes, both individual plate presentation and buffet presentation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330CUL 701, and 330CUL 703, and 330CUL 705, and 330CUL 708, or Consent of Department Chairperson; concurrent enrollment in 330CUL 709, and 330CUL 714
1 lecture and 9 lab hours per week. 4 credit hours.

## Course Descriptions

## 330CUL 707

## Food Service Technology

Introduces kitchen calculations, including recipe costing and conversion, determining revenue and food cost, menu planning and pricing, cost control in a foodservice environment, and an overview of the use of computers in a professional kitchen. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 100, Reading 125, and Mathematics 098; concurrent enrollment in 330CUL 721 and 330CUL 723. 200 minutes per week. 4 credit hours.

## 330CUL 708

## Chef's Training I-Section B

Covers basic mise en place including knife skills, proper station set-up, classical cooking terminology, standard cooking methods, stock preparation, sauce preparation and heat transfer methods. Develops the basic skills necessary for employment as food service professionals. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 100, Reading 125, and Math 098; concurrent enrollment in 330CUL 701, and 330CUL 703, and 330CUL 705. 1 lecture and 9 lab hours per week. 4 credit hours.

## 330CUL 709

Chef's Training II-Section B
Introduces Garde Manager-cold kitchen techniques including production of soups, salads, sandwiches, sausages, terrines, pates, galantines, cheese, hors d'oeuvres, canapés, appetizers, condiments, pickles and breakfast items and the production of these items, as well as sanitation as it applies to cold food preparation, the equipment in the Garde Manager kitchen and garnishes, both individual plate presentation and buffet presentations Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330CUL 701, and 330CUL 703, and 330CUL 705, and 330CUL 708, or Consent of Department Chairperson; concurrent enrollment in 330CUL 706, and 330CUL 714.
1 lecture and 9 lab hours per week. 4 credit hours.

## 330CUL 712

## Baking Theory and Problems

Instruction in formulas, new formulas and ingredients in the baking/pastry field. Evaluation of convenience mixes. Math for bakers. Writing assignments, as appropriate to the discipline, are part of the course.
250 minutes per week. 5 credit hours.

## 330CUL 714

Nutrition for Chefs
This course provides the basic principles of nutrition and their relation to food preparation. Nutrition's role in culinary techniques, ingredient selection, flavor development and creation of healthful menu options will be applied in lecture and experimental learning. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330CUL 701, and 330CUL 703, and 330CUL 705, and 330CUL 708, or Consent of Department Chairperson; concurrent enrollment in 330CUL 706, and 330CUL 709
200 minutes per week. 4 credit hours.

## 330CUL 721

## Entrée Preparation

Study of principles, methods, and techniques involved in the preparation of international cuisines with an emphasis on specialized cooking methods and flavor profiles; practical experience in banquet and buffet production with an emphasis on presentation techniques and design; proper and safe use of tools, materials, and quantity foodservice equipment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330CUL 701, and 330CUL 703, and 330CUL 705, and 330CUL 708, or consent of Department Chairperson; concurrent enrollment in 330CUL 707, and 330CUL 723.
2 lecture and 15 lab hours per week. 7 credit hours.

## 330CUL 722

## Entrée Sanitation and Safety

Upon completion, the student will be able to perform advanced techniques of safety and sanitation as they relate to the main menu items. Writing assignments, as appropriate to the discipline, are part of the course.
3 lab hours per week. 1 credit hour.

## 330CUL 723

Food Service Management
Instruction in foodservice management and executive responsibility in all facets of the foodservice industry. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 100, Reading 125, and Mathematics 098; concurrent enrollment in 330CUL 707, and 330CUL 721.
4 lecture and 3 lab hours per week. 5 credit hours.

## Course Descriptions

## 330CUL 728

## Advanced Cooking

Study of principles, methods, and techniques involved in quantity preparation of appetizers, sandwiches, salads, soups, stocks, sauces, meats, seafood, poultry, eggs, milk, cheese, bakery products, desserts, and beverages; practical experience in proper and safe use of tools, materials, and quantity foodservice equipment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330CUL 701, and 330CUL 703, and 330CUL 705, and 330CUL 708, or consent of Department Chairperson.
1 lecture and 18 lab hours per week. 7 credit hours.

## 330CUL 754

## Candy and Confectionery

In this course, the students will learn about the history of chocolate, chocolate bi-products, tempering and handling of chocolate. They will learn to produce a wide range of chocolate candies. This class is taught using updated methods of traditional recipes with efficient production setup. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 330CUL 758

## Plated Desserts

This course focuses on simplified and cost-effective production methods, while stressing the importance of maintaining high quality by using the freshest ingredients. Students will be exposed to refreshingly new presentations and elegant designs that will be carried out when they prepare several placed desserts including hot and cold, frozen desserts, fruit soups, parfaits, and a la minute desserts. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## 330CUL 761

Chocolate and Sugar
Students will learn about the history, tempering and the fundamentals of chocolate and sugar. They will learn the latest techniques with use of chocolate colors, spray gun, use of different types of molds, making cut-out decorations, silk screens, pastillage, saturated sugar, pulled and blown sugar, spun and piped, bubble, straw, pured sugar and more. All of these techniques will be applied to the several show pieces each student will create and take home. Writing assignments, as appropriate to the discipline, are part of the course.
250 minutes per week. 5 credit hours

## 330CUL 762

French Cakes and Pastries
In this course, the students will learn to produce a wide variety of classical and modern French cakes suitable for restaurants, retail shops for large scale productions, using the latest assembling techniques and cost-effective production methods. These cakes will be highlighted with decorations such as silk screens, printed sponge, logos, chocolate and sugar decorations to name a few. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## 330CUL 779

Safety \& Sanitation
This course conveys the utmost importance of food professionals providing safe food to their customers. Students learn everything about food safety, sanitation, equipment, and food delivery. This is a comprehensive immersion into all aspects of handling food safely. The National Restaurant Association ServSafe examination will be a part of this course. Students must pass this exam in order to pass the 16-week program. Those who do not pass will have the opportunity to re-take the exam. Student who pass will be eligible for city and state certification. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Concurrent enrollment in 330CUL 780, and 330CUL 781, and 330CUL 782, and 330CUL 783.
50 minutes per week. 1 credit hour.

## 330CUL 780

## Baking, Pastry \& Technology

This course takes students through the technology and science of the ingredients of pastry. Students learn the differences between various dairy products and eggs, the different types of flours and sugars, and how the interactions of ingredients affect the outcome. Students learn basic skills and modeling, petits fours and party favors, as well as the historical development of celebration cakes. Students immerse themselves in the history of French pastry and cake making, the development of palate, the hierarchy of a kitchen, and an exploration of the wide variety of settings where graduates can use their craft. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330CUL 779; concurrent enrollment in 330CUL 781, and 330CUL 782, and 330CUL 783.
2 lecture and 6 lab hours per week. 4 credit hours.

## Course Descriptions

## 330CUL 781

Cake Baking \& Construction
This course covers all aspects of wedding, celebration, and specialty cake baking, constructing, and assembly. Recipe creations with taste and texture profile methods are covered in depth. Students learn a variety of doughs and fillings; the art of cake architecture; European classic recipes, cuttingedge creations, current trends, and sculpted cake methods; all this giving students a solid foundation necessary to create their own. Efficient production methods are taught and students will use these techniques to produce their own designs. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330CUL 779, and 330CUL 780; concurrent enrollment in 330CUL 782, and 330CUL 783.
2 lecture and 9 lab hours per week. 5 credit hours.

## 330CUL 782

Cake Decorating Techniques
In this course students learn a wide variety of cake decorating techniques including elaborate gumpaste work, detailed piping techniques, French buttercream frosting, making rolled fondant from scratch and rolled fondant cake covering, chocolate decorations specifically tailored cakes, pastillage and pressed sugar accents, pulled and blown sugar flowers and ribbons, mold making methods, airbrushing skills, figurine modeling and 3-D sculpted cakes. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330CUL 779, and 330CUL 780; concurrent enrollment in 330CUL 781, and 330CUL 783.
2 lecture and 9 lab hours per week. 5 credit hours.

## 330CUL 783

Cake Business Planning
This course provides in-depth focusing on critical information needed to operate a successful wedding cake business such as pricing, customer consultation, cake portions, design, packaging, and delivery logics. Career counseling and personal attention to each student's career goals are provided. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 330CUL 779, and 330CUL 780; concurrent enrollment in 330CUL 781, and 330CUL 782.
50 minutes per week. 1 credit hour.

## [DENTHYG] DENTAL HYGIENE (100)

## DENTAL HYGIENE 110

Oral Microbiology and Immunology
Introduction to the general principles of microbiology, including the morphology, physiology, and classification of bacteria and related organisms. Basic concepts of immunology, especially in relationship to oral diseases are covered. Specific attention is given to oral microbial infections. Emphasizes concepts of applied microbiology as it pertains to dental hygiene practice. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and grade of C or better in Biology 226, and Biology 227, and Chemistry 121 courses.
100 minutes per week. 2 credit hours.

## DENTAL HYGIENE 112

## Concepts of Preventive Therapy I

Orientation to the profession of dental hygiene and the role of the dental hygienist in the educational and therapeutic oral health services provided in the development of an individualized plaque control program. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222.

100 minutes per week. 2 credit hours.

## DENTAL HYGIENE 121

## Principles of Dental Hygiene I

Fundamental theories and skills necessary to perform oral prophylaxis treatment. Principles of disease transmission, infection control, instrumentation, and the examining and charting of oral conditions. Concepts and procedures are presented through lectures and applied in the clinical laboratory sessions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Hygiene program/plan 222, and Dental Hygiene 110, and Dental Hygiene 112 courses, and Consent of Department Chairperson.
100 minutes per week. 2 credit hours.

## Course Descriptions

## DENTAL HYGIENE 122

Principles of Dental Hygiene II
Systematic presentation of additional theories and skills necessary to perform an oral prophylaxes and supplementary techniques. Emphasis on additional principles of instrumentation, instrument sharpening techniques, polishing technique, use of fluorides, taking alginate impressions, comprehensive periodontal evaluation, dental and periodontal charting, blood pressure measurement, medical emergencies in the dental office, classification of dental care and use of phase microscope, and dental hygiene planning. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission the Dental Hygiene program/plan 222, and Dental Hygiene 121 and Dental Hygiene 123 courses.
100 minutes per week. 2 credit hours.

## DENTAL HYGIENE 123

Principles of Dental Hygiene I Laboratory
Companion course designed for the application of concepts presented in Dental Hygiene 121. Practice provided in the pre-clinical laboratory setting. Instrumentation skills are performed on typodonts and on student partners to a specified standard of competency. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/ plan 222, and Dental Hygiene 110 and Dental Hygiene 112 courses.
6 lab hours per week. 2 credit hours.

## DENTAL HYGIENE 124

Principles of Dental Hygiene II Laboratory
Companion course designed for the application of concepts presented in Dental Hygiene 122 within the laboratory/ clinical setting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Dental Hygiene 121, and Dental Hygiene 123 courses.
9 lab hours per week. 3 credit hours.

## DENTAL HYGIENE 125

Nutrition and Biochemistry
An introduction to the fundamental principles of general biochemistry, metabolism, oral biochemistry, and nutrition., including the molecular components of cells, their chemical processes, the biological basis of dental disease, and the clinical application of nutritional theory on the counseling of dental patients. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Chemistry 121 course, and Consent of Department Chairperson. 100 minutes per week. 2 credit hours.

## DENTAL HYGIENE 126 <br> Dental Radiology

The application of the fundamental principles of radiology in the study of teeth and surrounding structures. Provides pre-clinical laboratory beginning clinical experience in exposing, processing, mounting, and basic interpretation of dental radiographs. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Dental Hygiene 131, and Dental Hygiene 133 courses. 2 lecture and 3 lab hours per week. 3 credit hours.

## DENTAL HYGIENE 128

General and Oral Pathology
A survey of general and oral pathology with emphasis on diseases and their manifestations in the oral cavity. Recognition and detection of such deviations from normal are also studied. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Dental Hygiene 131, and Dental Hygiene 133 courses.
100 minutes per week. 2 credit hours.

## DENTAL HYGIENE 130

## Dental Materials

Introduction to the basic concepts of material science and physical properties while gaining practical experience in the manipulation of restorative materials used in dental hygiene practice. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission the Dental Hygiene program/plan 222, and Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## DENTAL HYGIENE 131

## Oral Structures and Function

Introduction to the microscopic, embryologic, and morphologic characteristics of the cells, tissues, and structures associated with the oral cavity. Emphasis on the development, structure and function of periodontal tissues, external and internal morphology of the teeth, and basic concepts of occlusion. Writing assignments, as appropriate to the discipline, are part the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Biology 226, and Biology 227 courses, and Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

## DENTAL HYGIENE 133

Head and Neck Anatomy
Introduces the gross anatomical structure and function of the human head and neck including the face, oral cavity, and deep structure of the face, including clinical implications and correlations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Biology 226, and Biology 227 courses, and Consent of Department Chairperson.
100 minutes per week. 2 credit hours.

## DENTAL HYGIENE 135

Concepts of Preventive Therapy II
Continuation of Preventive Therapy I with special emphasis on the psychology of motivation, special patient care, and specific population groups. Procedures will be introduced for developing and presenting dental health educational materials primarily to children in the school setting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Dental Hygiene 112 course, and Consent of Department Chairperson.
50 minutes per week. 1 credit hour.

## DENTAL HYGIENE 200

## Summer Clinic

A continuation of dental hygiene theory and clinical concepts applicable to dental hygiene practice. Emphasis will be placed upon specific topics pertinent to acquiring clinical expertise. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Dental Hygiene 122, and Dental Hygiene 124.
1 lecture and 6 lab hours per week. 3 credit hours.

## DENTAL HYGIENE 202

## Critique of Dental Literature

Introduction to the fundamental concepts and skills needed to understand, interpret, and critique professional literature. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Consent of Department Chairperson.
50 minutes per week. 1 credit hour.

## DENTAL HYGIENE 233

## Expanded Functions

Principles and techniques utilized in comprehensive dental care. Includes the mixing and placement of amalgam, composite, other restorative materials. Special attention is paid to pain management with use of local anesthesia and conscious sedation agents commonly utilized in the dental treatment setting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Dental Hygiene 131, and Dental Hygiene 133 courses.
1 lecture and 2 lab hours per week. 2 credit hours.

## DENTAL HYGIENE 235

Community Dental Health I
An introduction to the current principles and issues in community health and their relationship to the delivery of dental care to the public sector. The role of the dental hygienist in the community disease prevention and health promotion activities will be emphasized. Writing assignments, as appropriate the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Consent of Department Chairperson.
100 minutes per week. 2 credit hours.

## DENTAL HYGIENE 241

Dental Pharmacology
Principles of pharmacology and understanding of the characteristics of major drug groups and their utilization in medicine and dentistry. Emphasis on drugs used for medical treatment which require treatment modification by the dentist or dental hygienist and those drugs used in dental practice. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Biology 227, and Dental Hygiene 121, and Dental Hygiene 123, and Dental Hygiene 128 courses.
100 minutes per week. 2 credit hours.

## DENTAL HYGIENE 243

## Periodontics

Includes the etiology, classification, symptomatology, diagnosis, treatment, and prognosis of periodontal disease. Emphasis on the phases of periodontics pertinent to a dental hygienist. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Dental Hygiene 121.
100 minutes per week. 2 credit hours.

## COURSE DESCRIPTIONS

DENTAL HYGIENE 250
Oral Diagnosis
Introduction to the art of differential diagnosis as it relates to lesions occurring in and about the oral cavity, including pathology, history, radiographic and clinical appearance, prognosis and treatment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Consent of Department Chairperson.
100 minutes per week. 2 credit hours.

## DENTAL HYGIENE 251

Clinical Dental Hygiene I
Enrichment of skills in performing health services in the clinical setting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Dental Hygiene 200.
1 lecture and 12 lab hours per week. 5 credit hours.

## DENTAL HYGIENE 252

## Clinical Dental Hygiene II

Enrichment of skills in performing oral health services in the clinical setting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Dental Hygiene 251.
1 lecture and 12 lab hours per week. 5 credit hours.

## DENTAL HYGIENE 254

Dental Specialties
Introduction to various dental specialties and current trends in dental treatment. Guest lecturers, who are specialists in the field, will provide pertinent information and in some cases, supervise practical experiences during clinical rotation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Consent of Department Chairperson.
50 minutes per week. 1 credit hour.

## DENTAL HYGIENE 256

Community Dental Health II
A continuation of Dental Hygiene 235. Developing, implementing and evaluating a community dental health program; utilization of health care services, epidemiology of dental disease, health care financing, and health care delivery. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Dental Hygiene 235. 2 lab hours per week. 1 credit hour.

## DENTAL HYGIENE 258

Ethics and Jurisprudence
The personal and professional aspects of dental hygiene practice, including: interpersonal and inter-professional communication, licensure and credentialing, elements of practice management, employment opportunities and strategies, ethics, legal responsibilities, and the professional organization. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Consent of Department Chairperson.
100 minutes per week. 2 credit hours.

## DENTAL HYGIENE 260

## Senior Seminar

A review of all material found on the national, regional, and State Dental Hygiene Board Examinations and preparation for the Dental Hygiene Board examinations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Dental Hygiene program/plan 222, and Consent of Department Chairperson. 100 minutes per week. 2 credit hours.

## [DIET TC] DIETETIC TECHNICIAN (012)

## DIETETIC TECHNICIAN 104

Fundamentals of Nutrition
Nutrition and its role in health care and maintenance. Study of the major nutrients in foods and how the body uses them. Nutrient composition of foods, the food exchange list system, balanced diets, the basic four food groups, ideal body weights, energy and protein requirements. Recommended daily allowances nutrients, principles of meal planning for normal nutrition, dietary guidelines, nutrient calculations and analysis. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## Course Descriptions

## [DMD] DIGITAL MULTIMEDIA (138)

## DIGITAL MULTIMEDIA 105

## Animation

This is a studio course in which the primary orientation is the development of the student's portfolio. Principles, practices and philosophy of animation, with the primary emphasis on the creation of a short animation, including the creation of sketches, overlays, storyboards and a short animation. Writing assignments, as appropriate to the discipline, are part of the course.

## 2 lecture and 2 lab hours per week. 3 credit hours.

## DIGITAL MULTIMEDIA 115

## Digital Soundtrack

This is a studio course whose primary orientation is the development of the student's portfolio. Investigational development of soundtracks for video, film and multimedia, using digitized sounds, traditional foley effects, general midi music, and dubbed effects, with the primary emphasis on the creation of a video and multimedia soundtrack, and professional sound and editing techniques . Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in English 101.
2 lecture and 2 lab hours per week. 3 credit hours.

## DIGITAL MULTIMEDIA 121

## 3D Graphics I

This is a studio course whose primary orientation is the development of the student's portfolio. Introduction to 3D graphics, principles of perspective, and basic principles of 3D modeling. The theory of 3D on the computer will be explored. Writing assignments, as appropriate to the discipline, are the part of the course. Prerequisite: Grade of $C$ or better in English 101, and Digital Multimedia 168, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## DIGITAL MULTIMEDIA 131

## Multimedia I

This is a studio course whose primary orientation is the development of the student's portfolio. Introduction to multimedia, principles of interactivity and basic principles of 2-dimensional interactive. Simple scripting, flow charts and storyboards. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in English 101, and Digital Multimedia 168.
6 lab/studio hours per week. 3 credit hours.

## DIGITAL MULTIMEDIA 168

Computer Art I
Introduction to the concepts of computer art using representative programs and concepts from the profession, including both raster paint/photo retouching programs and professional quality vector programs, and the history of computer art. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 120, and Placement Test, or Consent of Department Chairperson.
6 lab/studio hours per week. 3 credit hours.

## DIGITAL MULTIMEDIA 179 <br> Video I

This is a studio course in which the primary orientation is the development of the student's portfolio. Investigates video production, with primary emphasis on the creation of a video and in-camera editing, storyboards, scripts, shooting lists, and a short film. Writing assignments, appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, and CIS 120, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## DIGITAL MULTIMEDIA 221

## 3D Graphics II

This is a studio course whose primary orientation is the development of the student's portfolio. 3D graphics and 3D modeling with an emphasis on movement, using systems and inverse kinematics and the use of constraints and bones. Advanced modeling will be used such as skins and mesh deformation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Digital Multimedia 121, and Digital Multimedia 168, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## DIGITAL MULTIMEDIA 231

## Multimedia II

This is a studio course whose primary orientation is the development of the student's portfolio. Extensive use of scripting, programming with an emphasis on using professional techniques and standards. Sound, video, animation and interactivity will be combined in an interactive work. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Digital Multimedia 131, or Digital Multimedia 279, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

# COURSE DESCRIPTIONS 

## DIGITAL MULTIMEDIA 233

## Multimedia III

This is a studio course whose primary orientation is the development of the student's portfolio. Extensive use of professional production management techniques. Development of a group multimedia project using professional techniques and standards. Sound, video, animation and interactivity will be combined to create an interactive work. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Digital Multimedia 231, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## DIGITAL MULTIMEDIA 268

## Advanced Computer Art

This studio course develops understanding of and skills in computer art at an advanced level, builds upon the basic skills developed in DMD 168 and explores more advanced features in both bitmap and vector painting and drawing programs. Utilization of filters, layers, channels, gradient mesh, advanced type techniques, color correction, and surface and texture creation, the preparation of images for the web, and use of vector and bitmap programs in tandem. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Digital Multimedia 168 with a grade of C or better, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## DIGITAL MULTIMEDIA 279

## Video II

This is a studio course whose primary orientation is the development of the student's portfolio. Advanced video production, with the primary emphasis on the creation of a video, storyboards, scripts, and shooting lists for a short video, and professional lighting, sound and editing techniques. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Digital Multimedia 115, or Digital Multimedia 179, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## DIGITAL MULTIMEDIA 299

## Portfolio Development

This is a seminar course to prepare students to successfully present their ideas and art in the marketplace. Portfolio development and presentation, along with the mechanics of writing a proposal, preparing a budget and presenting the proposal will be examined in depth. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in English 101.
2 lecture and 2 lab hours per week. 3 credit hours.

## [ECON] ECONOMICS (082)

## ECONOMICS 101

## Elements of Economics

Allocations of scarce resources among alternative uses in both the market place and within the individual consuming units; basic money and banking mechanisms, income determination in the larger economy, and business fluctuations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ECONOMICS 133

## Consumer Economics

Principles of intelligent buying, investments, shelter, insurance andbasiccommodities;developmentofconsumercooperative movement, advertising, fraud, monopoly, and competition, and role of government in promoting consumer welfare. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## ECONOMICS 201

## Principles of Economics I

Macro or income analysis, including money, income determination, public finance, and economic development. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ECONOMICS 202

## Principles of Economics II

Covers micro or price analysis, including the markets, production function, income distribution, and international trade. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ECONOMICS 203

## Current Economic Problems

Representative contemporary economic problems and possible solutions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Economics 201, or Social Science 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS


#### Abstract

ECONOMICS 204 Money and Banking Economic history and operation of U.S. monetary and banking systems, business cycles, international exchange, Federal Reserve System, and use of national fiscal policies as instruments of economic control. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Economics 201, and Economics 202, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.


## [EDUC] EDUCATION (083)

## EDUCATION 101

## Introduction To Education

Introduction to teaching as a profession in the American education systems, including historical, philosophical, social, legal, and ethical issues in a diverse society, organizational structure, and school governance. Field experience is required. Writing assignments, as appropriate tothediscipline, are partofthe course. Prerequisite:Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## EDUCATION 102

Using Technology in the Class
Prepares pre-service and in-service teachers to integrate technology, including computer and multimedia software, into pre-K through 12th grade classes. Survey concepts of technology use, provides hands-on experience with hardware and software, and addresses human, social, and ethical issues related to the use of technology in education. Meets national and state technology standards. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## EDUCATION 103

Students with Disabilities in School
A survey course that presents the historical, philosophical, and legal foundations of special education, as well as an overview of the characteristics of individuals with disabilities, the Individual with Disabilities Act (IDEA) and the services that are provided under this act, and the diversity of exceptional populations with implications for service delivery. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101, or Psychology 207.

150 minutes per week. 3 credit hours.

## EDUCATION 203 <br> Educational Psychology

Assessment of aptitudes, capacities, interests, and achievements, and the educational implications of physical, emotional and social development. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Psychology 201, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## EDUCATION 205

## Introduction To Teacher Assistant

This course is one of the requirements of the TeacherAssistant certificate programs/plans 273 and/or 274. Provides an introduction to the rules and duties, the responsibilities and expectations of the teacher's assistant in Chicago Public Schools (CPS), including an orientation to the profession of teaching; the role of the teacher and the teacher's assistant; current trends and problems in education, particularly in the CPS. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## EDUCATION 208

School Leadership and Support Professionals
This course is one of the requirements of the Teaching, Leadership and Support Professionals AAS degree program/plan 055 and the Advanced Certificate program/plan 057. Examines the administrative process at educational institutions, emphasizing the role of the principal and staff relations. Functions in an elementaryl secondary schools and community colleges, including school finance, planning, personnel, organizational structure, governance, and problem solving in elementary/ secondary and community colleges will be explored. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## Course Descriptions

## EDUCATION 209

Observation/Seminar Elementary Education
Provides authentic experiences and knowledge which impact teaching in the elementary school classroom. Students will evaluate and design unit and lesson plans based on Illinois Learning Standards (ILS); review curriculum and instructional materials; shadow an entry-level elementary school leader and education support personnel; maintain an observation log; maintain a reflective journal with daily entries; and complete written reports on topics relevant to teaching and leadership support in elementary schools. This experience will be evaluated under the guidance of the classroom teacher and monitored by the college instructor. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Education 208.
2 lecture and 20 lab hours per week. 6 credit hours.

## EDUCATION 210

Observation/Seminar Secondary Education
Provides authentic experiences and knowledge which impact teaching in the elementary school classroom. Students will evaluate and design unit and lesson plans based on Illinois Learning Standards (ILS); review curriculum and instructional materials; shadow an entry-level secondary school leader and educate support personnel; maintain an observation log; maintain a reflective journal with daily entries; and complete written reports on topics relevant to teaching and leadership support in secondary schools. This experience will be evaluated under the guidance of the classroom teacher and monitored by the college instructor. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Education 208. 2 lecture and 20 lab hours per week. 6 credit hours.

## EDUCATION 211

Observation/Seminar Community Colleges
Students will participate in a required supervised practicum at the college level and will shadow a support professional and an entry-level manager; develop an observation log; maintain a reflective journal with daily entries; develop a handbook on college positions; complete written reports; and develop a special project for leadership services. The course will include guest speakers, and oral presentations. Field experience will occur at college-approved sites. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Education 208. 2 lecture and 20 lab hours per week. 6 credit hours.

## EDUCATION 256

## The American Public School

Function of the school as a social institution; organization, administration, and finance of public education and the major educational issues and trends. Designed for general education students and for prospective teachers. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Science 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## EDUCATION 260

## Principles of Practice in Elementary Education

Organizational procedures, curriculum, principles classroom management, and the role of the teacher in stimulating learning. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## EDUCATION 269

Practicum in Elementary Education -16 Wks
Students spend 20 hours per week, under supervision, as a teacher aide in a primary grade classroom, 8 or 16 weeks; course includes 2-hour weekly seminar. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 102, and Child Development 107, and Education 256, and Consent of Department Chairperson.
1-2 lecture and 10-20 lab hours per week.
3-6 credit hours.

## EDUCATION 277

Philosophy
Comparative study of philosophical views on the relationship of educationto political institutions, social processes, material conditions and individual ideas. Designed primarily for future teachers; open to all students. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## EDUCATION 299

## Special Topics in Education

Special topics in education and new developments in research and practice including the use of technology in the classroom. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times when topics are different, and may count for a maximum of four variable credits. Consent of Department Chairperson required for repeatability. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 50-200 minutes per week. 1-4 credit hours

## Course Descriptions

## [ELECTRN] ELECTRONICS (033)

## ELECTRONICS 116

## Basic Electronics AC/DC

Fundamentals in advanced electronics; basic laws of alternating and direct current circuit theory and operation of electronics devices and circuitry, including operation of modern electronic test equipment in practical laboratory application. This course covers essentially the same material as covered in Electronics 101 and Electronics 102 but in an accelerated, one semester approach. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 107, or Math 108.
2 lecture and 4 lab hours per week. 4 credit hours.

## ELECTRONICS 206

Digital Circuits and Systems
The analysis and design of digital circuits and digital systems, including digital logic, 7-segment displays, clocks, mono-stable multi-vibrators, flip flops, registers, analog to digital and digital to analog converters, counters, timers, sequential and state-variable logic, RAM and ROM. This course covers the same material as Electronics 118 and 119 but in an accelerated one-semester approach suitable for a 200-level course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Electronics 116, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## [EMT] EMERGENCY MEDICAL TECHNICIAN (120)

## EMERGENCY MEDICAL TECHNICIAN 100

Emergency Medical Technician First Responder Training
Development of basic skills in patient assessment and emergency medical care procedures required for minimizing patient suffering and the prevention of further injury. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## EMERGENCY MEDICAL TECHNICIAN 101

## Emergency Medical Technician-Basic

Provides training to recognize the nature or extent of a patient's condition, administer appropriate emergency medical care to stabilize the patient's condition and transport safely to the proper medical facility. Follows United States Department of Transportation (DOT) guidelines for EMT-B Training. CPR training/certification and ten (10) hours working in hospital clinical setting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
300 minutes per week. 6 credit hours.

## EMERGENCY MEDICAL TECHNICIAN 221

Essentials of Paramedic Medicine I
Introduction to the roles of the paramedic. Focuses on the introduction, assessment, management and stabilization of various patient conditions. Follows the United States Department of Transportation Guidelines for Paramedic Training. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Successfully complete the Paramedic Program Application and Entrance Process; concurrent enrollment in EMT 222; Current EMT-B Illinois State License, and Consent of Department Chairperson. 450 minutes per week. 9 credit hours.

## EMERGENCY MEDICAL TECHNICIAN 222 <br> Paramedic Medicine Practicum I

Focus on the integration and application of the principles learned in EMT 221. Includes: Direct patient care; Patient simulation, Clinical rotations, and ambulance ride time. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Concurrent enrollment in EMT 221; Current EMT-B Illinois State License, and Consent of Department Chairperson.
2 lecture and 6 lab hours per week. 5 credit hours.

## EMERGENCY MEDICAL TECHNICIAN 223

Essentials of Paramedic Medicine II
A continuation of EMT 221. The content focuses on the assessment, management and stabilization of various patient conditions. Follows the United States Department of Transportation Guidelines for Paramedic Training. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Successful completion of EMT 221, and EMT 222; concurrent enrollment in EMT 224; Current EMT-B Illinois State License, and Consent of Department Chairperson.
450 minutes per week. 9 credit hours.

## EMERGENCY MEDICAL TECHNICIAN 224

## Paramedic Medicine Practicum II

Integrates the principles learned in EMT 221, 222 (and concurrent course 223) and applies this knowledge into practical application. Includes: Direct patient care; Patient simulation, Clinical rotations and Ambulance ride time. This course follows the United States Department of Transportation guidelines for Paramedic Training. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Successful completion of EMT 221, and EMT 222; concurrent enrollment in EMT 223; Current EMT-B Illinois State License, and Consent of Department Chairperson.
2 lecture and 6 lab hours per week. 5 credit hours.

## Course Descriptions

## EMERGENCY MEDICAL TECHNICIAN 227

## Paramedic Medicine Field Internship

Provides the opportunity to integrate, synthesize and apply the knowledge gained in EMT 221, 222, 223 and 224 toward in-field situations. The student will be under the direct supervision of Paramedic Preceptors and will work with assigned Resource Hospitals as well as the Course Coordinator. This course will involve ambulance ride time. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: EMT 221, and EMT 222, and EMT 223 and EMT 224. Current EMT-B Illinois State License, and Consent of Department Chairperson.
3 lecture and 6 lab hours per week. 6 credit hours.

## EMERGENCY MEDICAL TECHNICIAN 250

## EMS Instructor

Provides the necessary to successfully present any of the Department of Transportation National Highway Traffic Safety Administration EMS course. Provides a solid foundation in learning theory, yet moves directly into hands-on application. With the emphasis on practical skill development, instructor trainees will complete with the confidence that they can successfully teach any course in the National Standard Curricula for which they are technically qualified. Successful completion of this course enables the participant to acquire state recognition as an EMS Lend Instructor. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## [ENGR] ENGINEERING (034)

## ENGINEERING 100

## Elements of Engineering

Drawing survey course for students in technical and engineering science major programs. Study of more advanced software "AutoCAD Mechanical Program"; also draw geometric figures, multi-view drawings, pictorial drawing, charts and graphs with emphasis on graphic elements of machine parts drawings. Writing assignments, as appropriate to the discipline, are part of the course
2 lecture and 2 lab hours per week. 3 credit hours.

ENGINEERING 110
Introductory Drafting
For students in non-technical and non-engineering science major programs. Learn to use "AutoCAD general program" to draw geometric figures, multi-view drafting, pictorial drawing, charts and graphs. Writing assignments, as appropriate to the discipline, are part of the course. 1 lecture and 2 lab hours per week. 2 credit hours.

## ENGINEERING 111

Introduction to the Engineering Profession
History of engineering profession, the engineer's role in a technological society, his/her work, and the relationship of engineering to other professions; includes study of general and related areas, ethics and responsibility of engineers and guidance. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Engineering 131, or Consent of Department Chairperson.
100 minutes per week. 2 credit hours.

## ENGINEERING 115

Engineering Communications - Blueprint Reading
Principles and practices involved in interpretations of engineering graphics communications; emphasis on machine and structural graphic communications. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENGINEERING 131

## Engineering Graphics and Introduction to Design

Graphics, both manual and computer-aided drafting and design. Introduction to design techniques in graphics and multi-view drawing, auxiliary views, selecting, tolerance dimensioning, and technical sketching. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Engineering 110, and Engineering 111, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## ENGINEERING 132

Descriptive Geometry
Theory of projections. Solution by graphical methods of problems concerning the relation of points, lines, planes, and surfaces. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Engineering 131, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## ENGINEERING 165

Current Engineering Topics
Study of current topics including pollution control, transportation systems, water recycling, computer applications, automation, and engineering analysis of these problems. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## COURSE DESCRIPTIONS

## ENGINEERING 190

Computer Applications In Engineering
FORTRAN or C with emphasis in engineering and scientific programming languages such as FORTRAN and APT with emphasis on engineering problems encountered in design and manufacturing. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Mathematics Placement Test, and credit in Math 207, and Engineering 131. 150 minutes per week. 3 credit hours.

## ENGINEERING 202

Advanced Drafting and Basic Machine Design
Application of fundamentals of stress analysis to design of complete machine units involving machine elements such as shafts, springs, gears and screws, mechanical properties of materials and their significance in design; classification of fits, specification of materials in use, and the manufacturing processes. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Engineering 131, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## ENGINEERING 206

Elements of Mechanics-Statics
Rigidbodies, fluidstatics, friction, momentsofinertia, centroids, and virtual work. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physics 235, and Math 208, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## ENGINEERING 208

## Strength of Materials For Architecture

Concepts of stress and strain relationships; analysis of elementary stress distributions and deformations; study of axial loading, shear and bending moment diagram, and bending theory application. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Engineering 206, and Math 141.
2-3 lecture and 2-3 lab hours per week. 3-4 credit hours.

## ENGINEERING 215

## Electrical Circuit Analysis

Basic electric circuits, Nodal and Mesh analysis. Voltage and current laws, circuit analysis techniques and superposition. Operational Amplifiers. RL, RC, and RLC circuits. Frequency response, Resonance, AC power analysis. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisites: Physics 236, and Math 209, and concurrent enrollment in Math 210.
4 lecture and 2 lab hours per week. 5 credit hours.

## ENGINEERING 250

## Engineering Projects

Projects of experimental and analytical nature to stimulate creativity; recommended scheduling and integrating subject material with selected engineering courses. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Engineering 202, or Consent of Department Chairperson.
50-100 minutes per week. 1-2 credit hours.

## [332ENGR] ENGINEERING \& INDUSTRIAL

## 332ENGR 300

Introduction to Computer Aided Design
This course introduces students to the use of the microcomputer for computer aided design and drafting, using measuring instruments, special perception workpiece scales. Writing assignments, as appropriate to the discipline, are part of the course.
2 lectures and 3 lab hours per week. 3 credit hours.

## 332ENGR 301

Computer Numeric Control Operations
Students are provided the opportunity to learn the operations and set up of CNC controlled vertical mills and CNC controlled lathes. Writing assignments, as appropriate to the discipline, are part of the course.
2 lectures and 3 lab hours per week. 3 credit hours.

## 332ENGR 302

Computer Numeric Control Programming I
This course provides knowledge and skills needed for entry level employment in CNC programming, as well as advanced programming dealing with the lathe and mill. Programming of complex parts with the aid of a computer is also part of this course. Writing assignments, as appropriate to the discipline, are part of the course.
2 lectures and 3 lab hours per week. 3 credit hours.

## 332ENGR 303

Computer Numeric Control Programming II
This course provides advanced part programming dealing with the lathe and mill. Programming of complex parts with the aid of a computer. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in 332ENGR 302.
2 lectures and 3 lab hours per week. 3 credit hours.

## COURSE DESCRIPTIONS

## 332ENGR 304 <br> CAD/CAM Numerical Control

This course is designed to acquaint students with NC part programming as it applied to a CAD/CAM system. Writing assignments, as appropriate to the discipline, are part of the course.
2 lectures and 3 lab hours per week. 3 credit hours.

## 332ENGR 305

Introduction to Computer Applications in Manufacturing Fundamentals concepts of computer information systems as applied to microcomputers in the manufacturing field. Students will be introduced to specialized software formats in word processing, spreadsheets, databases, and graphics. Includes hands-on experience using a variety of software employed in the manufacturing field. These include: computer-aided design, computer numerical control, quality assurance, and computer readouts. Writing assignments, as appropriate to the discipline, are part of the course. 200 minutes per week. 4 credit hours.

## 332ENGR 539

## Metallurgy

This course provides the student with the basic knowledge in the compositions, structure, and selection of steel and other metals used in modern machining processes. Emphasis is placed on the common properties of metals such as: density, ductility, tensile strength and hardness, as well as to show how some of the metals respond to heat treatment processes. Writing assignments, as appropriate to the discipline, are part of the course.
2 lectures and 3 lab hours per week. 3 credit hours.

## 332ENGR 761

## Machine Shop Math

This course provides the student with the necessary mathematical foundation for problem solving, review of the basic principles of arithmetic, decimal, fractions and metrics. It also provides training in the use of algebra, geometry and trigonometry as applied to the solution of practical machine shop problems. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 332ENGR 764

Machine Shop Technician
Students will study the nomenclature of hand tools, engine lathe, grinders, drill press, bandsaws and the use and care of precision measuring instruments. This course provides students with manual, semi-automatic, automatic, numerical and computerized numerical control training in the safe operation of engine and turret lathes, vertical and horizontal milling machine with the proper use of cutting, fluids, basic metallurgy, gears and gear cutting, feed and speeds. The use of the dividing head and rotary table are also emphasized. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## 332ENGR 767

## Blueprint Reading

A course to develop the trainee's ability to interpret drawings related to actual machine shop projects. Wood and metal patterns and (CAM) graphics are used to facilitate interpretation. This course covers the basic principles of GD\&T. Students learn how GD\&T symbols are used to ensure the interchange ability of parts being manufactured, as well as how GD\&T is added to enhance the quality of parts that must be assembled. Students will learn the various tolerances of form, profile, orientation, runout, and location. The practical application of GD\&T will be used throughout the course. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 332ENGR 770 <br> Machine Tool Operations

Introduction to basic machine tool operations including bandsaws, engine lathes, drill presses, milling machines, grinding of drill and tool bits, bench work and related layout work and inspection. Writing assignments, as appropriate to the discipline, are part of the course.
9 lab hours per week. 3 credit hours.

## 332ENGR 777

## Statistical Process Control

This introductory course provides an overview of quality as it applied to producing quality products and services. Students learn the terminology and techniques necessary to control the processes and systems, including the control of procured materials, equipment, and services. The course starts with the history of quality control, standards, inspection, calibration, preventative maintenance, systems and OSHA standards. Production parts will be used to calculate the measured dimensions and determine quality compared to the standard. These skills will be applied to the lab portion of the CNC Program. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## Course Descriptions

## 332ENGR 779

Internship
The internship will provide students with hands-on experience operating a lathe, mill, or other machining equipment at an actual worksite. The intern will most likely be an assistant to a machinist or perform basic machine work. Writing assignments, as appropriate to the discipline, are part of the course.
5 lab hours per week. 1 credit hour.

## [432ENGR] ENGINEERING \& INDUSTRIAL

## 432ENGR 502

## Electrical Wiring

This course will introduce the student to electrical wiring, repair and construction techniques in a laboratory setting. Students will also acquire proficiency in the identification and use of various electrical components associated with wiring activities. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 3 lab hours per week. 3 credit hours.

## 432ENGR 503

## Applied Mathematics

This course introduces the student to the use of fractions mixed numbers, decimals, order of operations, ratio, proportion and percent problems as they relate to industrial maintenance activities. Measurement and graphical representation will be explored and the skill of estimating and solving word problems will be emphasized. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 432ENGR 504

## Introduction to Pneumatic Technology

This course in pneumatic technology will teach students how air is harnessed as a source of power to do work. The pneumatic trainer will be used to illustrate how pneumatic circuits are used in real-life and industrial applications. Students will also learn how to use a variety of pneumatic instruments, components and systems through a series of enjoyable and interesting experiments. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 3 lab hours per week. 2 credit hours.

## 432ENGR 505

Solid State Fundamentals
This course will focus upon the use of discrete solid state devices in electronics. Topics on instruction will include: semi conduction, diodes, optoelectronic devices, DC and small signal analysis of bipolar transistors and FETS, power amplifiers, tuned amplifiers, frequency response and other associated electronic devices. The theory and application of solid state electronics will be studied in a laboratory setting. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 3 lab hours per week. 3 credit hours.

## 432ENGR 506

Industrial Motors
This course will introduce the student to the principles and applications of electric motors used in industry. Topics to be studied include: motor and generator fundamentals, single and three-phase AC motors, DC and universal motors, stepper motors, servo motors, motor load characteristics, motor specifications and ratings, efficiency characteristics, motor specifications and ratings, efficiency characteristics, motor testing and protective devices and testing and troubleshooting procedures for motors. The theory and application of motors used by industry will be studied in a laboratory setting. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 3 lab hours per week. 3 credit hours.

## 432ENGR 507

## Industrial Controls

This course will introduce the student to the AC power control system used in the industry. Topics to be studied include: ladder diagramming, motor starters, relays, timers, solid state motor controls, photo electronic and proximity control devices and an introduction to programmable controllers. The theory and application of industrial controls will be studied in a laboratory setting. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 3 lab hours per week. 3 credit hours.

## 432ENGR 508

## Digital Electronics Fundamentals

This course will introduce the student to electronic digital fundamentals through the study of combinational and sequential logic circuits. Topics of study will include Boolean algebra, number codes, latches, flip-flops, counters and shift registers. The theory and application of digital electronics will be studied in a laboratory setting. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 3 lab hours per week. 3 credit hours.

## COURSE DESCRIPTIONS

## 432ENGR 509

## Industrial Programmable Control

This course will introduce the student to the basic operations of programmable controllers, central circuit programming and industrial programmable controller applications used in automated manufacturing. The theory and application of programmable controllers will be studied in a laboratory setting. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 3 lab hours per week. 3 credit hours.

## 432ENGR 510

## Industrial Hydraulics

This course will introduce the student to the basic concepts of hydraulics and its applications in an industrial setting. A hydraulics laboratory trainer will be utilized to help students learn hydraulics through the use if a variety of test instruments, gauges, components and control systems. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 3 lab hours per week. 3 credit hours.

## 432ENGR 512

## Internship

Placement on the job monitored by supervisor will introduce the student to the real world of work. Writing assignments, as appropriate to the discipline, are part of the course. 10 lab hours per week. 1 credit hour.

## 432ENGR 515

## Principles of DC/AC

This course will introduce the student to DC and AC circuiting fundamentals including current and voltage resistive elements, Ohm's law, series, parallel, and series-parallel DC and AC circuits analysis, conductors and insulators, basic electric measurements instruments, capacitors, magnetic circuits and electromagnetism, inductance, sinusoidal alternating current and voltage, and various types of transformers. Various aspects of DC and AC theory and problem solving activities will be conducted in a laboratory setting. Writing assignments, as appropriate to the discipline, are part of the course.
4 lecture hours per week. 4 credit hours.

## 432ENGR 516

Quality Insurance
This introductory course provides an overview of quality assurance as it applies to producing products and services based primarily upon processes and systems, and including the control of procured materials, equipment and services. It will include an overview of the history of quality assurance, standards, inspection, calibration, preventative maintenance, systems and OSHA standards. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture hours per week. 2 credit hours.

## 432ENGR 517

National Electric Code
This course in the National Electronic Code (NEC) helps students understand how the NEC is constructed, how to read the code, from beginning students to experienced electricians. A series of enjoyable lectures that clarify confusing and seemingly conflicting rules from the 1996 NEC. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture hours per week. 2 credit hours.

## 432ENGR 518

Introduction to Power Systems
This course will introduce and develop students' critical thinking process, enabling them to reach a sound understanding of a broad range of topics related to power systems, while motivating their interest in the electrical power industry. Both theory and modeling are developed from simple beginnings so that students can be readily extended to new and complex situations. The course renews basic phasor concepts, single phase, as well as three phase circuits, power transformers, transmission lines parameters, power system control, including turbine-generator controls and multi machine stability. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture hours per week. 2 credit hours.

## [ENGLISH] ENGLISH (035)

## ENGLISH 098

## Composition

Elements of reading, writing and speaking basic English. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Grade of C or better in Reading 099, and Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ENGLISH 100

Basic Writing Skills -
Emphasis on individual expression in paragraph form, sentence clarity through knowledge of sentence structure, and correct word forms. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Grade C or better in English 098, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## ENGLISH 101

## Composition

Development of critical and analytical skills in writing and reading of expository prose. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Grade of C or better in English 100, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ENGLISH 102

## Composition

Continuation of English 101. Introduces methods of research and writing of investigative papers. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in English 101.
150 minutes per week. 3 credit hours.

## ENGLISH 105

Business Writing
Fundamentals of basic forms of business correspondence. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ENGLISH 107

## Report Writing

Letters and reports, methods of collecting and organizing data, and methods of presenting facts and ideas effectively. Writing assignments, as appropriate to the discipline, are part of the course.
50-150 minutes per week. 1-3 credit hours.

## ENGLISH 121

## Communications

Ability to communicate: listen, view, talk, read, write; study of communications theory, investigation of other media: radio, television, film, records, tape, magazine, and newspaper advertisements. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENGLISH 127

## Textual Analysis

Relating thinking to reading by analysis of written materials. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Grade of C or better in English 100, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ENGLISH 150

## College Newspaper

News reporting and writing, feature writing, makeup and editorial work; discussion of problems of policy and newspaper. Lab work correlated with publication of college newspapers. Students will carry out all the tasks involved in the writing, publication, and distribution of the college newspapers. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 151, or English 152. Not more than an accumulated 4 hours will be counted toward graduation.
50 minutes per week. 1 credit hour.

## ENGLISH 151

## News Reporting and Writing

Survey of journalism, including news reporting and feature writing, makeup and editorial work, business and advertising problems.Writingassignments, asappropriatetothediscipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENGLISH 152

## Introduction to Mass Communication

Scope of modern journalism and dominant theories of communication; influences of the media in today's society. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENGLISH 153

Journalism
Survey of print journalism, including news, editorial and feature writing, newspaper organization, copy editing, printing technology and circulation. Application of skills involved in publishing the college newspaper. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 151.
1 lecture and 4 lab hours per week. 3 credit hours.

## ENGLISH 197

## Communications Skills

This course provides additional support to English 101 students emphasizing critical reading, academic writing, and standard English grammar. Writing assignments, as appropriate the discipline, are part of the course. Prerequisite: Placement Test, or Grade of C or better in English 100, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## ENGLISH 201

Advanced Composition
Intensified work in expository and argumentative writing for students who need to improve writing skills for professional careers. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in English 102.
150 minutes per week. 3 credit hours.

## ENGLISH 203

## The Structure of English

A study of linguistics applied to American English. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101 with a grade of C or better.
150 minutes per week. 3 credit hours.

## ENGLISH 241

## Creative Writing

Descriptive and narrative writing, concentrating on the writing of poetry, drama, and fiction. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ENGLISH 242

## Intercultural Communication

Examination of communication barriers through the study of the varieties of English, including dialects, structural and phonetic differences among ethnic groups, both present and historical, beginning with the Old English period and moving to the present. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## ENGLISH 243

## Creative Writing-Fiction

Students will understand the structure and elements of fiction and the writing process, produce fully-developed works of fiction, and demonstrate an understanding of the critical terminology of the creative writer. Student will experiment with different approaches to plot, point-of-view, dialogue, voice, sequence and structure. A minimum of 25-30 finished pages of original work is recommended. Journals, a midterm, and a final exam may also be required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of English 101.
150 minutes per week. 3 credit hours.

## ENGLISH 245

Creative Writing Poetry
Students will understand the structure and elements of poetry and the writing process, produce fully-developed works of poetry, and demonstrate an understanding of the critical terminology of the creative writer. Students will experiment with different approaches to form, voice, narration, imagery, translation, creative response, and revision. A minimum of 200-250 finished lines of original work is recommended. Journals and exams may also be required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, or English 100 with a C or better, or Consent of Department Chairperson. Completion of English 241 recommended.
150 minutes per week. 3 credit hours.

## ENGLISH 276

Feature Writing for Newspapers and Magazines
Feature writing for newspapers and magazines. Study and applied skill emphasize idea development for the extended feature article, personality profile, and focus story. Assignments may also include advanced practice in writing critical reviews on books, music, theater, restaurants, and writing humor. Includes a focus on selling feature articles and on the business of freelance writing. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in English 101.
150 minutes per week. 3 credit hours.

## ENGLISH 299

## Special Topics in English

Selected topics in English for students interested in further developing their understanding of specific authors, movements, genres, styles of writing, and forms of language; emphasis on linguistic structure, social contact, and interpretation. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times when topics are different, and may count for a maximum of six variable credits. Consent of Department Chairperson required for repeatability.
50-150 minutes per week. 1-3 credit hours

## COURSE DESCRIPTIONS

## ENGLISH AS A SECOND LANGUAGE (SEE ESL)

[ENTRE] ENTREPRENEURSHIP (143)

## ENTREPRENEURSHIP 201

Introduction to Entrepreneurship
Introduction to the concept of sustainable entrepreneurship, a manageable process applicable across careers, work settings, and time. Focus on building entrepreneurial attitudes and behaviors that will lead to creative solutions within the business community and other organizational environments, including the history of entrepreneurship, the role of entrepreneurs and entrepreneurs in the 21st century global economy, and opportunity identification, elements of creative problem-solving, and development of an enterprise concept/model. Examination of feasibility studies, and the social/moral/ethical implications of entrepreneurship. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101, and Math 118 eligibility, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ENTREPRENEURSHIP 202

Opportunity Recognition and Development
Participants will learn techniques and processes leading to opportunity (value) recognition to include the evaluation of target market, current economic, social, and political climate that provide value opportunities for entrepreneurial ventures. Entrepreneurial opportunities will be evaluated relative to personal strengths and weaknesses, financial, professional, social, and personal goals. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101, and Math 118 eligibility; concurrent enrollment in ENTRE 201, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ENTREPRENEURSHIP 203

## Entrepreneurial Accounting and Finance

An advanced entrepreneurial course structured on accounting and financial methodologies in order to evaluate or predict the financial performance of their enterprise. Building upon their business concepts or existing enterprise, participants will be introduced to core financial and managerial accounting concepts. Financial analysis techniques will enable them to prepare short and long-term financial operations plans, including cash requirements for enterprise startup and ongoing operations. Participants will be trained to use computerized accounting software as part of a managerial tool kit to support operation assessment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101, and Math 118 eligibility; concurrent enrollment in ENTRE 201, and ENTRE 202, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## ENTREPRENEURSHIP 204

## Entrepreneurial Marketing \& Sales

Introduction to marketing and personal selling strategies designed to support entrepreneurial development and growth. Participants will develop a theoretical and practical understanding of key marketing and sales strategies, including competitive product/services pricing, product/ service promotion and distribution, customer and supplier qualification and the closing of sales transactions. Writing assignments, as appropriate to the discipline, are part of this course. Prerequisite: Placement test, or English 100 with a grade of C or better, and ENTRE 201, and ENTRE 202, and eligibility for Math 118, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ENTREPRENEURSHIP 205

## Law for the Entrepreneur

A required course, providing an overview of the formation and operation of business enterprises, types of business organization, contract law, leases, intellectual property and employment law, including sole proprietorships, general and limited partnerships, limited liability companies and corporations, the benefits and disadvantages of each type of entity as well as the formation, dissolution and record keeping for each of these entities, other fundamental areas of law affecting business entities. Writing assignments, as appropriate to the discipline, are part of this course. Prerequisite: Placement Test, or English 100 with a C or better, and eligibility for Math 118, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ENTREPRENEURSHIP 206

## Entrepreneurial New Venture Startup

Participants will explore and identify problems that arise in the start-up phase of an entrepreneurial venture by developing a business plan/concept for a new venture and pitching it to a panel of judges. Alternatively, participants have the option to explore and identify the obstacles to success that occur while managing and operating a business venture in a computersimulated environment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: ENTRE 201, and ENTRE 202, and ENTRE 203, and ENTRE 204, and ENTRE 205, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

# Course Descriptions 

## [ENVR ST] ENVIRONMENTAL STUDIES (026)

## ENVIRONMENTAL STUDIES 101

## Man and Environment I

Interdisciplinary study of humans, the environment, and their interrelationships, including resources, processes, wastes, growth, change, values, individual responsibility, and involvement; emphasis on ecology of Chicago metropolitan environment; individual in relation to urban systems, and urban systems in relation to world environment. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL STUDIES 102

## Man and Environment II

Resource and land management, interaction of social, economic, and technological systems with the environment and relationship of individuals and groups to the environment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Environmental Studies 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [ENVR TC] ENVIRONMENTAL TECHNOLOGY (027)

## ENVIRONMENTAL TECHNOLOGY 100

Introduction to Emergency Management
Introduction to the principles and concepts of emergency management, including an overview of the various disciplines involved in preparing for emergencies resulting from many different causes. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 101

## Basic Skills in Emergency Management

Provides a background in various aspects of emergency management that would apply in any emergency. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 102 <br> Leadership/Influence/Communication

Among the most important attributes of successful emergency managers is the ability to fill a strong authority position that will aid them in accomplishment of tasks that would need to be done to deal with an emergency. This course is designed to provide a basic understanding of the skills needed by emergency managers that will allow them to lead and motivate emergency responders. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 103 <br> Introduction to Emergency Planning

The importance of planning for emergencies before they occur has long been recognized as the key to minimizing their impact on society. This course is designed to provide a basic overview of the concepts of pre-planning needed to deal with a wide range of emergency situations. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 104

## Energy Systems Fundamentals

Covers the basics of building envelopes, HVAC, lighting, insulation, glazing, plumbing and electrical systems, construction materials, and the surrounding environment. Incorporates blueprint/design fundamentals. Focus on construction engineering concepts. Introduces LEED and Energy Star programs, relevant environmental, health and safety principles, impacts, and regulatory implications. Provides a broad overview of energy use and efficiency in structures and why it matters. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 105

Introduction to Atmospheric Sciences
Introduction to principles and concepts of the atmospheric sciences with an emphasis on climate, weather, and related environmental interactions resulting from human activities. Writing assignments, as appropriate to the discipline, are part ofthe course.Prerequisite:PlacementTest, orEnglish 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 106 <br> Introduction to Terrorism

Terrorism events present some special aspects to the world of emergency management. This course will examine the differences and similarities among emergencies resulting from terrorism vs. natural disasters or accidents. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 107

Environmental Geology
Examines human interactions with geologic processes and hazards, including earthquakes, volcanoes, landslides, subsidence, hydrology, and flooding; occurrence and availability of geologic resources, such as energy, water, and minerals; principals of land-use planning, pollution, and waste disposal, environmental impact, health, and law. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## Course Descriptions

## ENVIRONMENTAL TECHNOLOGY 108

Mitigation Management
The impact of many types of emergencies can be reduced by taking certain actions prior to their occurrence that will lessen the damage when the emergency occurs. Introduction to the concept of mitigation, and the activities that will accomplish it in a wide range of potential emergency situations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of Environmental Technology 100 with a C Grade or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 111 <br> Basic Incident Command

The Incident Command System provides a management framework for dealing with emergency situations. Provides the basic knowledge of what incident command is and how it functions, as well as the importance of having a strong central authority to oversee all aspects of responding to emergency situations. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 112

## Disaster Response and Recovery

Explores the basic nature of disasters, what they are, what steps must be taken to respond to them, and what is involved in recovering from them. This is a lab class that will culminate in the conduction of a day-long, campus-wide disaster scenario response drill. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Environmental Technology 100, and Environmental Technology 101, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## ENVIRONMENTAL TECHNOLOGY 113

## Emergency Resource Management

In planning for and responding to emergencies, varied resources will be required. This course identifies what these various resources are and how to use them most efficiently in a response action. The course includes study of governmental, non-governmental, and volunteer resources and their potential roles. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 114

## Renewable Energy Systems

An introductory, work-skills course on principles, concepts, applications, and installation of renewable and alternative energy technologies. Distinguishes between technologies appropriate to industrial /commercial settings versus those intended for residential structures. Covers renewable energy sources (solar, wind, geothermal, etc.) as well as alternative technologies utilized for building operations (microturbines, fuel cells, combined heat and power). Designed to prepare tradesman for the installation of various technologies. Up to five off-campus field trips to alternative energy installations will be scheduled as part of this course. Writing assignments, as appropriate to the discipline, are part of the course.
3 lecture and 2 lab hours per week. 4 credit hours.

## ENVIRONMENTAL TECHNOLOGY 115

## Introduction to Weapons of Mass Destruction

Provides an overview of chemical, biological, radiological, and nuclear (CBRN) weapons, and the threat of their use in terrorism events. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 121

Introduction to Hazardous Materials Management
This course is an overview of the environmental impacts resulting from hazardous materials such as asbestos, and their mismanagement. Emphasis is placed on understanding the sources responsible for soil, water, land, and pollution and the environmental laws governing our natural resources, including asbestos. Emphasis is placed on storage and treatment practices, monitoring, sampling and handling techniques, damaging effects on humans, ecology and the environment, as well as governmental regulations concerning soil, water, and air. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 122

## Disaster Site Worker

Focuses on the skills needed by workers who respond in the recovery phase of major disasters, including the requirements for obtaining the OSHA Construction Worker 10-hour card, which is required for Disaster Site Worker certification. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Environmental Technology 100, and Environmental Technology 181, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

# Course Descriptions 

## ENVIRONMENTAL TECHNOLOGY 123

## Chemical Emergency Response

This course is designed to meet the requirements of OSHA for workers who will respond to a hazardous chemical release. The course consists of the five levels of training required under 29CFR1910.120(q). Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 131

Environmental Health and Safety
Introduction to health and safety principles and skills needed to conduct field operations dealing with hazardous substances. Meets initial training requirements of the Occupational Safety and Health Administration for workers engaged in hazardous waste operations. Includes fundamentals of hazard recognition, toxicology, selection, use, and safety procedures for conducting waste site use, and limitations of personal protective equipment. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 141

Site Investigation and Sampling
Introduction to the techniques for monitoring and sampling of soil, water, and air. Emphasis is on site investigation procedures for contamination by hazardous materials; the use of specialized sampling equipment its maintenance and repair, and record keeping for chain-of-custody and other documentation. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 144

## Building Systems Maintenance

Course is comprised of seven energy efficiency topics in building operations and maintenance. Building Operators Certification is a professional development program in the energy and resource efficient operation of buildings to qualify operations and maintenance staff for certification. Writing assignments, as appropriate to the discipline, are part of the course.
3 lecture and 2 lab hours per week. 4 credit hours.

## ENVIRONMENTAL TECHNOLOGY 151

## Introduction to Environmental Laws and Policies

Introduction to the United States legal system and to the doctrinesandstatueswhichregulatethe production, treatment, transportation, and disposal of hazardous materials. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Environmental Technology 121.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 163

Asbestos Training for Workers and Supervisors
Trains workers, supervisors, and contractors on an asbestos abatement job in hazard assessment, regulations, procedures, operation and maintenance planning, personal protection, and worksite safety according to AHERA and state regulations. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## ENVIRONMENTAL TECHNOLOGY 165

Asbestos Training for Inspectors
Provides all inspectors of asbestos problems in public buildings with the equivalent of three days of Environmental Protection Agency approved training in asbestos control, sampling and inspection, including health effects, personal protection, regulations and liabilities, according to AHERA and state regulations. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## ENVIRONMENTAL TECHNOLOGY 175

Hazardous Material Handing and Transportation
Explores the regulations involving the transportation of hazardous materials and waste. It includes manifesting, generator and transporter standards, Department of Transportation hazard classes, placards, labels, markings, spill response, and driver responsibilities. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 181

Emergency Response Levels I, II, III
Trains personnel responding to hazardous materials emergencies on the requirements outlined in the appropriate OSHA regulations and NFPA standards for Levels I, II, III. The emphasis is on hazard and risk assessment, safety, basic chemistry, personal protective equipment, spill containment and confinement, decontamination, and incident record keeping and reporting. This course will satisfy the requirements for Emergency Response Levels I, II, and III training. Writing assignments, as appropriate to the discipline, are part of course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 190

Introduction to Animal Sciences
Provides a firm biological and natural sciences background to students for understanding the principles important to the raising and management of livestock and companion animals. Students will have the opportunity to learn from animal industry leaders. The course is team taught to incorporate Animal Sciences instructors who are specialists in their subject matter areas. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101, and Math 118 or higher.
200 minutes per week. 4 credit hours.

## Course Descriptions

## ENVIRONMENTAL TECHNOLOGY 192 <br> Introduction to Soil Science

This course is designed to provide a comprehensive treatment of the basic principles of soils as they exist and interact in the environment. The course emphasizes soil as a natural body in nature, its formation, classification, chemical and physical properties. This course is designed to be equally useful to the non-agricultural production students, including those studying plant science, ecology and environmental sciences, and to students in curricula such as agronomy, crop science, soil science, horticulture and forestry. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Successful completion of high school Chemistry is required.
200 minutes per week. 4 credit hours.

## ENVIRONMENTAL TECHNOLOGY 203

Advanced Emergency Planning
Covers the planning required for specific emergency response actions, including emergency evacuation, housing, and logistics. Course information is presented in the context of exercises design as pre-planning for response. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 204

## Residential Energy Systems

Covers energy systems and energy efficiency technologies utilized in single- and multi-family residential building forms, including systems design and installation in both new construction and retrofit projects. Introduces field auditing techniques, environmental impacts (indoor air quality, asbestos, lead, voc's, radon, waste disposal issues, etc.), worker health and considerations, Energy Star certification, building commissioning procedures, and local regulatory requirements. An off-campus field trip to a residential green building/construction site will be scheduled as part of this course. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 205

## Terrorism Planning

Preparing for and responding to terrorism events requires a more focused perspective. This course will provide an overview of the special considerations that must be included in the planning stages of response to terrorism event. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 211

Recycling and Waste Minimizing
Presents information on reuse and recycling of nonhazardous materials that dominate the municipal waste system. Waste reduction techniques for industrial processes that generate hazardous waste constitute the second half of the course. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 212

## Advanced Incident Command

Focus on the particular management issues associated with large-scale emergencies that require response from multiple entities, including the federal government. Includes the National Incident Management System (NIMS) that is activated for incidents of national significance. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 214

## Institutional Energy Systems

Covers the types of energy systems and energy efficiency technologies in use in commercial, industrial, and high-rise buildings. Includes design, installation, testing, evaluation, and operation of technologies for these structures, and details the integration of system control components. Also encompasses a synopsis of environmental, health and safety for construction and post-construction activities, Energy Star, LEED certification, other pertinent programs and regulatory aspects. An off-campus field trip to an institutional green building/construction site will be scheduled as part of this course. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 215

Advanced Weapons Mass Destructions
Applies the basic concepts from EM Introduction to Weapons of Mass Destruction to specific potential situations where these weapons may be used. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 221

## Emergency Management Operations I

An advanced course that covers the workings of the Emergency Operations Center (EOC) during the response to major incidents. Students will fill operational roles in a simulated EOC as various drill scenarios are run. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## Course Descriptions

## ENVIRONMENTAL TECHNOLOGY 222

## Emergency Management Operations II

A field course on the application of the concepts covered in the program through direct observation of emergency response activities performed by various government agencies. Writing assignments, as appropriate to the discipline, are part of the course. Students will be placed as interns in government agencies in this course. Students registering for this course must meet all prerequisite requirements and submit to a criminal background check. Prerequisite: Grade of C or better in all other Environmental Technology A.A.S. program/plan 160 requirements, and Consent of Department Chairperson. (Concurrent enrollment will not qualify).
20 lab hours per week. 4 credit hours.

## ENVIRONMENTAL TECHNOLOGY 225

## Psychology of Terrorism

Examines the motivations of terrorist groups, the goals of terrorism, and the impact of terrorism events on societies. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Environmental Technology 100, and Environmental Technology 101, and Environmental Technology 105, and Environmental Technology 205, or Consent of Department Chairperson. (Concurrent enrollment in Emergency Technology 205 is allowable).
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 226 <br> Disaster Psychology

Examines the psychological impact of disasters on both victims and responders. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 231

Treatment/Storage/Disposal of Hazardous Materials
Introduces treatment, storage, and disposal of hazardous wastes, or hazardous constituents. The emphasis is on various technologies, including treatment, land disposal, surface impoundments, solidification, incineration, and disposal management. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 241

Environmental Sampling
An in-depth study of the procedures and concepts used by EPA to investigate sites. Emphasis is on hazardous waste at both controlled and uncontrolled sites. Include the investigation of ground water, surface water, air, and soil contamination, including health and risk assessments. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Environmental Technology 121, and Environmental Technology 131.
2 lecture and 4 lab hours per week. 4 credit hours.

## ENVIRONMENTAL TECHNOLOGY 242

## Environmental Analysis

Introduction to the foundations of environmental chemistry. Artificially created and natural systems will be examined. Students will be encouraged to qualify and quantify the relationships between chemistry and the environment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 121, and Chemistry 121. 150 minutes per week. 3 credit hours.

## ENVIRONMENTAL TECHNOLOGY 243

## Environmental Analysis

This course will introduce the student to the foundations of environmental chemistry, man-made and natural systems will be examined. Students are encouraged to qualify and quantify the relationships between chemistry and environment. United States Environmental Protection Agency analytical requirements will be surveyed using inductively coupled argon plasma, gas chromatography, mass spectrometry, ion chromatography and UV-Vis spectrometry, among other state-of-the-art analytical technologies. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 106, and Chemistry 121..
2 lecture and 4 lab hours per week. 4 credit hours.

## ENVIRONMENTAL TECHNOLOGY 244

Energy Equipment Troubleshooting
A second tier course comprised of four classes in maintenance, operation, and diagnostics of electrical and HVAC systems, two of four possible electives in system specialty topics. Buildings Certification is a professional development program in the energy and resource efficient operation of buildings to qualify operations and maintenance staff for certification. Writing assignments, as appropriate to the discipline, are part of the course. 3 lecture and 2 lab hours per week. 4 credit hours.

## Course Descriptions

## ENVIRONMENTAL TECHNOLOGY 271

Legal Issues in Hazardous Waste Management
Focus on legal problems and financial liabilities that may be associated with producing, handling, storage, and disposal of hazardous materials. Designed to explore legal aspects and ramifications in production, storage, and disposal of hazardous wastes. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Environmental Technology 151.
150 minutes per week. 3 credit hours.

## [ESLINTG] ESL (INTEGRATED) (136)

ESL (INTEGRATED) 098
Intermediate Integrated ESL
An integrated reading/writing course at the intermediate ESL Level designed to increase student's receptive and productive command of written English. The focus is on grammatical structures, as well as reading and composition at the intermediate level. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of six credit hours. Consent of Department Chairperson required for repeatability. Prerequisite: ESL Placement Test and interview, or Consent of Department Chairperson.
300 minutes per week. 6 credit hours.

## ESL (INTEGRATED) 099

## High Intermediate ESL

An integrated reading/writing course at the high-intermediate ESL Level designed to increase student's receptive and productive command of written English. The focus is on sentence structure, reading of authentic texts, and essay writing. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of six credit hours. Consent of Department Chairperson required for repeatability. Prerequisite: ESL Placement Test and interview, or successful completion of ESL (Integrated) 098, or ESL English 098, and ELS Reading 098, or Consent of Department Chairperson.
300 minutes per week. 6 credit hours.

## ESL (INTEGRATED) 100

Advanced Integrated ESL
An integrated reading/writing course at the Advanced ESL Level designed to increase student's receptive and productive command of written English. There is a review of sentence structure and sentences connection; extensive reading of authentic texts, including academic ones; and frequent essay-writing. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of six credit hours. Consent of Department Chairperson required for repeatability. Prerequisite: ESL Placement Test and interview, or successful completion of ESL (Integrated) 099, or ESL English 099, and ESL Reading 099, or Consent of Department Chairperson.
300 minutes per week. 6 credit hours.

## [ESLREAD] ESL READING (137)

## ESL READING 098

## Special Reading Skills

Special reading skills for non-native speakers of English; focus is on comprehension and analysis of reading materials and study of American idioms. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of three credit hours. Consent of Department Chairperson required for repeatability. Prerequisite: Qualifying score on ESL Placement Test and oral interview, ESL Writing 098, and ESL Speech 098, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ESL READING 099

## High Intermediate Reading Skills

Efficient reading of textbooks and other materials, including work in mechanics of reading, vocabulary development, comprehension, and rate of reading. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of three credit hours. Consent of Department Chairperson required for repeatability. Prerequisite: Placement Test, or grade of C or better in ESL Reading 098, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

# COURSE DESCRIPTIONS 


#### Abstract

ESL READING 100 Advanced Reading Skills Focus on comprehension and analysis of college-level reading materials and the study of American idioms. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of three credit hours. Consent of Department Chairperson required for repeatability. Prerequisite: Placement Test, or grade of C or better in ESL Reading 099, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.


## [ESLSPCH] ESL SPEECH (195)

## ESL SPEECH 098

## Intermediate Speech

Emphasis on achieving competency required for successful pursuit of higher education: pronunciation drills, pattern drills, participation in group discussion and presentation of brief speeches. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of three credit hours. Consent of Department Chairperson required for repeatability. Prerequisite: Placement Test and oral interview, ESL Writing 098, and ESL Reading 098, or Consent of Department Chairperson.
150 minutes. 3 credit hours.

## ESL SPEECH 099

## High Intermediate Speech

Emphasis on conversation, group discussion, and listening skills to improve communication to enhance academic pursuits. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of three credit hours. Consent of Department Chairperson required for repeatability. Prerequisite: Placement Test and oral interview. or completion of ESL Speech 098 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ESL SPEECH 100

## Advanced Speech

Emphasis is placed on oral presentations, as well as comprehensibility and use of conversational techniques. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of three credit hours. Consent of Department Chairperson required for repeatability. Prerequisite: Placement Test and oral interview, or completion of ESL Speech 099 with a grade of C or better, or Consent of Department Chairperson 150 minutes per week. 3 credit hours.

## [ESLWRIT] ESL WRITING (135)

## ESL WRITING 098

Special Grammar and Composition
Writing skills and linguistic and idiomatic patterns are emphasized. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of three credit hours. Consent of Department Chairperson required for repeatability. Prerequisite: Placement Test and oral interview; Reading-ESL 098, and Speech-ESL 098, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ESL WRITING 099

High Intermediate Grammar and Composition
Intensive review and refinement of grammar and composition. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of three credit hours. Consent of Department Chairperson required for repeatability. Prerequisite: Placement Test, or grade of C or better in Writing-ESL 098, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ESL WRITING 100

Advanced Grammar and Composition
Writing and analysis of paragraphs and essays and of logical development. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of three credit hours. Consent of Department Chairperson required for repeatability. Prerequisite: Placement Test, or grade of C or better in Writing-ESL 099, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [FIN ART] FINE ARTS (042)

FINE ARTS 103

## Theater Arts

A cross-disciplinary approach to the performing arts. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## FINE ARTS 104 <br> The World of The Cinema

Study of various types of films; covers historical development, production methods, technique of films, and critical evaluation. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## FINE ARTS 105

History of Painting, Sculpture and Architecture
Survey of art from pre-historic to contemporary. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## FINE ARTS 106

## African Art

Study of the ancient, traditional, and contemporary art of the peoples of the African continent, from the prehistoric paintings of Tassili-N-Ajer to the varied forms of contemporary African artists; influence of religion, philosophy, and social institutions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
100 minutes per week. 2 credit hours.

## FINE ARTS 107

History of Architecture, Painting and Sculpture I
Survey of art from pre-history through the $17^{\text {th }}$ Century. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

FINE ARTS 108
History of Architecture, Painting and Sculpture II
Survey of art from the 18th Century to the present. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## FINE ARTS 109

History of Cinema
An international survey of the history of cinema, from the silent era to contemporary filmmaking, emphasizing a study of various film genres from around the world and innovations in film production that have had significant influence on film as an art form. Full-length films and film clips will be screened in class. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Concurrent enrollment in English 101.
150 minutes per week. 3 credit hours.

## FINE ARTS 110

## Opera and the Humanities

Opera as a medium in which the philosophic, aesthetic, and psychological perspectives of composers and their eras are communicated; selected operas which parallel those offered in the community and present similar communication experiences will be studied; written material, radio broadcasts of operas, opera commentaries, and opera performances will be utilized. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [FIRE TC] FIRE SCIENCE TECHNOLOGY (116)

## FIRE SCIENCE TECHNOLOGY 101

Introduction To Fire Science
History of fire science; principles of fire prevention, protecting, and extinguishing; discussion of individual career opportunities. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 102

## Fire Fighting Tactics

Basic procedures for suppression of fire; application to principles of building construction; coordination of human resources and equipment. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 103

## Fire Suppression Systems

Fire suppression and protection systems, including characteristics and usage of sprinkler systems, wet pipe systems, stand pipe systems, heat detectors, smoke detectors; covers components of sprinkler systems, valves, OSY and P.I.V. valves, spacing of sprinkler heads according to occupancy classification, temperature rating, color coding of sprinkler heads, and Fire Department support, connections, and emergency involvement. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 104

## Fire Suppression Apparatus

Basic principles of fire apparatus construction, operation, and maintenance; consideration of pumps, pumper procedures and tests, aerial, ladders and platforms, and elementary hydraulic calculations. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## FIRE SCIENCE TECHNOLOGY 197

## Fire Service Orientation

Organization and operation of the fire department; handling hoses, raising ladders, use of ropes, masks, and other fire service appliances; automatic fire alarm and sprinkler systems, telegraph fire alarm and code of signals. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 198

Emergency Medical Orientation
Instruction in emergency medical care of injured persons; operation of resuscitation and other emergency medical equipment; use of emergency extrication equipment; certification in standard emergency medical practices. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 200

## Fire Administration

Analysis of basic objectives, personnel management, motor apparatus, equipment, buildings, communications, alarm systems; comparison of local, state, and federal fire control agencies. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 201

Fire Service Hydraulics
Review of basic mathematics for study of properties of fluids, force, pressure, and flow velocities; operation and characteristics of fire pumps; generation of fire streams and water distribution systems. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 202

Building Construction for Fire Service
Study of exterior and interior material and structural construction of buildings in relation to fire resistance, safety, and fire fighting. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 203

## Fire Protection Systems

Study of required standards for water supply, protection systems, automatic sprinklers and special extinguishing systems; analysis of automatic signaling and detection systems. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 204

## Fire Fighting Tactics II

Study of human labor and apparatus management; types of fires requiring a unique suppression approach. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 205

## Chemistry of Flammable Materials

Properties and fire suppression of chemically active and hazardous materials; flammable liquids, combustible solids, oxidizers, corrosive materials. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 206

Fire Codes
Study of national, building, and other codes relating to fire prevention and protection; relationship between building inspection agencies and fire prevention organizations. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 210

## Fire Prevention Fund I

Principles of a fire prevention program; planning and implementation of fire inspection; recognition of fire hazards and causes; building construction types and materials, and private protective systems. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 211

## Fire Prevention Fund II

Protection of public and private industrial properties against fire, explosion, lightning, and wind damage. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 212

## Fire Insurance Rating

Study of multiple line insurance policy types, rate determination, claim adjustments, and types of rate schedules. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## FIRE SCIENCE TECHNOLOGY 213

Fire Causes and Arson Investigation
Techniques and procedures for investigation of fires; determining origin and causes of fires; fundamentals of arson investigation; gathering evidence for technical reports; criminal procedures related to local and state statutes. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 220

## Fire Service Training I Instructor

Methods and techniques of teaching for fire service instructors; principles of teaching adults, how adults learn, teaching procedures and methods, training aids and services, testing and evaluation; includes practice teaching and evaluation by qualified observers; course will meet requirements of the Illinois Fire Protection Personnel Standards and Education Commission for the Basic Level Instructor Certification. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## FIRE SCIENCE TECHNOLOGY 221

Fire Service Training II Instructor
Methods and techniques for planning, development, and conducting a Fire Service Training program/plan 336; covers objectives of a program, evaluating training, techniques of conference leadership. Meet requirements of the Illinois Fire Protection Personnel Standards and Education Commission for the Standard Level Instructor Certificate. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Fire Science 220, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [FOODSRV] FOOD SERVICE ADMINISTRATION (038)

## FOOD SERVICE ADMINISTRATION 222

## Food Service Sanitation

Sanitation in preparation and service of food; sanitation chemicals, equipment and materials; ordinances and inspection procedures to ensure sanitary dispensing of food. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## [FRENCH] FRENCH (051)

## FRENCH 101

First Course French
Pronunciation and basic structures, speech patterns, reading, and writing skills. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## FRENCH 102

Second Course French
Continuation of French 101. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or French 101, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## FRENCH 103

## Third Course French

Review and development of basic language skills, conducted in French. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or French 102, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## FRENCH 104

## Fourth Course French

Review of language structure and interpretation of readings, conducted in French. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or French 103, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## FRENCH 206

## Intensive Oral Practice

Practice in spoken language, fluency, and accuracy. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or French 104, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## FRENCH 210

## Modern Civilization and Culture

Recent social, cultural, and historical trends, conducted in French and English. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## FRENCH 213

Introduction to Modern Literature
Selections from contemporary writings, conducted in French. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or French 104, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## FRENCH 214

## Readings In Literature

Works from selected historical periods, conducted in French. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or French 104, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## [GEOG] GEOGRAPHY (084)

## GEOGRAPHY 101 <br> World Geography

Economic, political, and cultural geography of the modern world, includes the people, raw materials, industrial resources, and trade connections of various parts of the earth. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## GEOGRAPHY 102

## Economic Geography

Contemporary view of the economic interdependence of the nations of the world with emphasis on role of the United States, the dynamic changing future of geography, and its influence on world conditions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## GEOGRAPHY 115

Geography of Metro Chicago
Examination of physical characteristics of six-county metropolitan areas, including topography, climate, and waterways; functional land use patterns, including economic modes, population concentrations, transportation patterns and historic development. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## GEOGRAPHY 201

Physical Geography
Physical environment of humans, their atmosphere, landforms, waters, and other natural resources; emphasis on interrelationships of these areas and interaction of humans with their surroundings. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [GEOLOGY] GEOLOGY (075)

## GEOLOGY 201

Physical Geology
Basic earth processes: weathering, erosion, deposition, and mountain building, metamorphism, volcanism, and plate tectonics. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## GEOLOGY 202

Geology for Educators
This course is designed to provide educators with a fundamental understanding of the Earth's systems, its changes, history, and resources, from both a qualitative and quantitative perspective. Plate tectonics, surface processes, and the Earth's composition and history will be explored and mapped to Illinois State Learning Goals for geology. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for Math 140, Grade of $C$ or better in English 102, and Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

## [HEALTH] HEALTH (001)

## HEALTH 102

## Medical Law \& Ethics

This course considers the standards of ethical conduct toward patients, colleagues and other members of the medical team. Legal responsibility, professional liability, licensing, contracts, and other applications of law in medicine will be included. This course discusses what medical career students should know to give competent, compassionate care to patients that are within acceptable legal and ethical boundaries. It can also serve as a guide to help the student resolve the many legal and ethical questions that students may find to expect. Pertinent legal cases, anecdotes, and sidebars related to healthrelated careers are presented in this course as well as how legislation affects health care. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of $C$ or better in Biology 120, and acceptance into the Medical Assistant program/plan 359. 150 minutes per week. 3 credit hours.

## HEALTH 103

Medical Assisting Clinical Procedures I
This course is designed to introduce students to basic clinical procedures in the medical office assisting field. Students will learn to perform basic skills and assist with procedures common to the medical office. Instruction will include classroom and laboratory as learning experiences. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Biology 120, and acceptance into the Medical Assistant program./plan 359. 2 lecture and 2 lab hours per week. 3 credit hours.

## HEALTH 104

## Medical Assisting Clinical Procedures II

This course is designed to build upon the knowledge and skills developed in Clinical I. Students will learn to perform clinical skills and assist with procedures common to the medical office. Instruction will include classroom and laboratory learning experiences. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Health 103. 2 lecture and 2 lab hours per week. 3 credit hours.

## HEALTH 105

Medical Careers Professional Development
This course explores the professional issues that affect the medical assistant. Current trends in education, certification and employment will be discussed and their impact on the practicing medical assistant will be emphasized. Communication skills that will enhance the performance of the medical assistant will also be reviewed. Employment seeking techniques such as resume preparation and interviewing skills will be included. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Health 103.
100 minutes per week. 2 credit hours.

## HEALTH 106

## Administrative Procedures

This course will explore administrative and front office responsibilities in the physician's practice or clinic setting. Emphasis is placed on clerical functions, bookkeeping procedures, preparing special accounting entries, transcription, and processing insurance claims. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 120, and CIS 120 , and Placement Test, or Math 099 with a grade of C or better, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## HEALTH 107

## Pharmacology

This course introduce the student to the basic skills that are performed by the medical assistant in the medical office. The course will emphasize the principles of pharmacology as they relate to medication administration in the medical office and clinic settings. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Biology 120, and acceptance into the Medical Assistant program/plan 359.
2 lecture and 4 lab hours per week. 4 credit hours.

## HEALTH 108

Fundamentals of Ambulatory Billing \& Coding
This course covers performance of coding procedures; application of third party and managed care policies, procedures, and guidelines, including obtaining referrals and pre-certifications; and billing for services, including insurance claim forms and use of a physician's fee schedule. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Biology 120. 2 lecture and 2 lab hours per week. 3 credit hours.

# COURSE DESCRIPTIONS 

## HEALTH 109

Medical Assisting Externship Practicum
This course requires a minimum of 160 hours of supervised, non-salaried experience in a variety of health care settings. Students will be assigned to clinical sites. This course requires 16 practicum hours per week. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of didactic portion of the Medical Assistant program/plan 359.
2 lecture and 20 lab hours per week. 6 credit hours.

## HEALTH 250

Health Education
Trends and issues of personal and community health; stress on ways to maintain good physical and mental health; ecology, drugs, alcoholism, human sexuality, nutrition, disease, and related topics. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## HEALTH 251

First Aid
Standard American Red Cross course in first aid; principles and practices of first aid for all age levels; safety and accident prevention stressed; First Aid Standard and Advanced certificates awarded to students completing the course successfully. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## [HLTH SCI] HEALTH SCIENCE (124)

## HEALTH SCIENCE 101

Trends and Issues in Health Care Delivery
Introduction to health care delivery systems; various health professions will be presented with emphasis on their primary role and how they interact or complement each other in delivery of health care services. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## HEALTH SCIENCE 102

Professional Medical and Health Care Practices
Includes the study of acronyms and professional jargon used in the medical and health care environment; examination of data used in the delivery of health care and the characteristics of the health care workforce. Chronic illness and rehabilitative care will be examined as well as primary and specialty care in light of managed care. The process of accrediting and licensing of health science programs will be explored. A case study format involving inter-disciplinary health science programs will be reviewed, emphasizing systematic clinical applications. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## [HISTORY] HISTORY (085)

## HISTORY 111

History of American People to 1865
Exploration of the new world and its colonization; study of colonial life with emphasis on cultural heritage and the American Revolution; emergence of the American nation traced through major trends and events in economic, political, cultural, social and intellectual affairs; includes past and present American culture patterns. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 112

## History of American People from 1865

American history from the close of the Civil War to the present; political and economic developments, and social, intellectual, and cultural changes. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 113

## United States Labor History

Labor movements development in the United States; problems of workers such as wages, hours, working conditions analyzed within their historical context; labor legislation, collective bargaining, social insurance, government intervention, and prospects for organized labor examined in their historical setting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 114

## The Afro-American in American History

Role of the African-American in American culture and the historical traditions which give rise to current dilemmas confronting the American community: traces history of people of African heritage from the background of African culture and slave trade as they became a part of American life. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

## HISTORY 115

Afro-American History Since 1865
Reconstruction period after the Civil War; Black politics in the new South; rise of Jim Crow sentiment; alliance of northern industry and southern Bourbonism; early northward migrations and urban culture; growth of civil rights organizations; W. E. B. DuBois and Booker T. Washington; Blacks in WWI and WWII; post-war developments. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 116

## Women in History

Historical roots of the position of women in society; women in antiquity, biblical attitudes towards women, women in the medieval period, women in the Industrial Revolution, the feminist movement, and women in contemporary society; role of women in non-Western (African and Chinese) societies; emphasis on the relationship between the social position of women and historically existing social, economic, and ideological forces. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 117

## History Of Chicago Metropolitan Area

Evolution of Chicago metropolitan area from frontier outpost to modern metropolis; economic, social, political and cultural changes, analysis of institutions, and discussion of current problems requiring solution in context of their historical background. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 118

## Women in American History

Introduction to history of women in America, women's changing status in society; effect of major events and forces on women's lives; women's role in reform; discussion of recent problems in light of past developments. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## HISTORY 141

History of World Civilization to 1500
Definition and flowering of the classical civilizations of Eurasia, Africa, and the Americas. Emphasizes environment, cultural diffusion, and technology as shaping forces in world history; empires and trade links; the major religious systems to 1500 C.E. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## HISTORY 142

History of World Civilization from 1500
Effects of the military, scientific, industrial, and democratic revolutions on the balance of civilization after 1500 C.E, including: the gunpower empires; the "Columbian exchange"; colonialism and the price revolution; capitalism and liberalism in global perspective; nationalism and dictatorship; the century of total war; and the shifting of world balance in the new millennium. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## HISTORY 170

## Native American History

Focus on the Native American experience in the United States of America. Selected topics in history to develop an understanding of specific periods, movements and leaders; emphasis on the social, political, economic, intellectual and philosophical events and implications. Focus on the Native American experience in the United States of America. Writing assignments, as appropriate to the discipline, are part the course. Prerequisite: Placement test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 210

## War and Peace in the Nuclear Age

An overview of the origins and evolution of nuclear weapons as well as the political, strategic, technological and ideological problems, and issues that have stemmed from their development. Thirteen part television series. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

# COURSE DESCRIPTIONS 

## HISTORY 211

Problems In History
Methods of historical research; specific subject matter varies.
Writing assignments, as appropriate to the discipline, are
part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 212

History and Culture of China
Study of Chinese history from Asian dynasties to the present. Political, economic, and cultural structure of traditional Chinese civilizations, foreign relations, invasions, and consequences, including the rise of the Communist party and the emergence of modern Communist China. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 215

History of Latin America
Political and constitutional history of principal Latin American nations; European, American and Indian backgrounds, movements for independence, and social and economic movements pertinent to their present relationships with the United States. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 216

History of Latin America in the United States
History, development, and contributions of persons of Latin American origin or ancestry in the United States with emphasis on those of Mexican, Puerto Rican, and Cuban background; includes pre-colonial origins in America, Europe and Africa; development of distinct cultures in the Western Hemisphere; migration patterns to the United States; development of communities in the United States, and directions in the Chicago area. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 225

## Modern Middle East History

The history of the Modern Middle East since World War I, including the challenges posed by imperialism and the rise of nationalism in the area. The region studied encompasses the Arab World, Israel, Turkey and Iran. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 230

## Ancient History

History of ancient Mediterranean civilizations from their origins to the fall of the Roman Empire; background of Egyptian, Assyrian, and Babylonian civilizations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 232

Modern European History 1500-1830
Medieval backgrounds, the Reformation and religious struggles, the development of nation-state, commercial revolution, colonization, and European expansion. Includes the rise of Prussia and Russia and the French Revolution. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 233

## Modern European History since1830

Recent European history, includes 19th Century background, emphasis on the period following the Versailles Treaty of 1919. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 243

## The Far East in the Modern World

Historical development of China, India, and Japan. Evolution of Oriental culture, economy, society, and government; the relation of America and the Far East, and the impact of Western ideas and institutions on the region. Survey of Philippines, Indo-China, Indonesia and Korea. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## Course Descriptions

## HISTORY 247

## African History to Colonial Period

Historical background of Africa south of the Sahara; precolonial and cultural development, including tribal histories, impact of colonialism and development of African nationalism. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 248

## African History - Modern Period

Growth of colonial government; the economic role of colonies; early opposition movements against European imperialism; the psychology of the colonizer and colonized; civil wars and independence. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 250

## Topics in American History

Selected topics in history for students interested in further developing and understanding specific periods, movements and leaders; emphasis on the social, political, economic, intellectual and philosophical events and implications. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HISTORY 252

## History of Science

Basic scientific principles, historic origins, and the evolution in scientific thought in the sciences from ancient civilization to present, with a comparative component between western and non-western sciences. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [HORTIC] HORTICULTURE (096)

## HORTICULTURE 101

## Introduction to Ornamental Horticulture

Plant structures, terminology and use of identification keys; study of culture and use of annuals, biennials, herbaceous perennials. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## HORTICULTURE 102

## Turfgrass Management

Lawn grasses and ground covers and insects, diseases and pests common to them; lawn planning, constructions, renovation, weed control and fertilizing. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## HORTICULTURE 103

Landscape Pest Management
Diagnosis of plant diseases and disorders, physiological and pathological, and application of control measures for insects, diseases and pests of ornamental plants; survey of diagnostic and identification keys. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## HORTICULTURE 104

## Plant Propagation

Techniques used in reproducing plants, both from seed and vegetative parts; propagating units, factors affecting rooting, growth substances, rooting media and seed treatment; principles of heredity, structure of genetic material and mechanics of transmission, and importance of genetics in hybridization. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## HORTICULTURE 105

Identification of Herbaceous Landscape Plants Focus on identification of herbaceous used in the landscape. Study the ornamental value, use of, and culture of annuals, biennials, and perennials. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Horticulture program/plan 241.
3 lecture and 2 lab hours per week. 4 credit hours.

## HORTICULTURE 106

## Identification of Woody Landscape Plants I

Focus on the identification, ornamental value, and culture of wood landscape plants. Emphasis on deciduous trees and coniferous evergreen trees and shrubs. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite:AdmissionintotheHorticultureprogram/plan241. 2 lecture and 2 lab hours per week. 3 credit hours.

## Course Descriptions

## HORTICULTURE 107

## Soils and Fertilizers

Study of soils, the formation of soils, physical and biological properties of soil, and the relationship of water in soils. Includes soil fertility, fertilizers and fertilizers applications, damage to soil, and soilless media. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite:Admission to the Horticulture program/plan 241. 2 lecture and 2 lab hours per week. 3 credit hours.

## HORTICULTURE 201

## Supervised Horticulture Experience

Focuses on placing students with a horticulture company during seasonal semesters, including practical experiences as performed in the horticulture industry. Regular supervisory visits by the instructor. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Horticulture program/plan 241.
250 minutes per week. 5 credit hours.

## HORTICULTURE 202

Landscape Design I
Aesthetic and economic importance of grounds improvement, residential and commercial; site analysis, requirements of landscape plans, scale drawings and landscape symbols; nursery classification, selection of plant materials, and landscape construction. Writing assignments, as appropriate to the discipline, are part of the course. 200 minutes per week. 4 credit hours.

## HORTICULTURE 203

Landscape Design II
Continuation of Horticulture 202, with emphasis on commercial landscaping; blueprint reading planning and construction of decorative gardens, athletic fields, and public parks. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## HORTICULTURE 204

## Landscape Installation

Focusesonlandscapeconstruction, includingsite preparation; drainage, irrigation, and lighting systems; installing edging, walls, fences, paving decks, water features, and plantings. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Horticulture program/plan 241.
2 lecture and 2 lab hours per week. 3 credit hours.

## HORTICULTURE 205

## Arboriculture

Continuation of plants identification, covering use and culture of deciduous and evergreen trees and shrubs. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## HORTICULTURE 206

Identification of Woody Land Plants II
This course focuses on a continuation of woody landscape plant identification with emphasis on deciduous shrubs, broadleaf evergreens, vines and ground covers. Ornamental value and plant culture are also covered. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite:Admission to the Horticulture program/plan 241. 3 lecture and 2 lab hours per week. 4 credit hours.

## [HOSPTLY] HOSPITALITY (003)

## HOSPITALITY 102

Hotel-Motel Sales Promotion
Organization and function of sales department. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Hospitality 104.
150 minutes per week. 3 credit hours.

## HOSPITALITY 103

## Food and Beverage Supervision

Overview of the food and beverage field as part of hospitality industry and the departments that make up food and beverage operation in a hotel. Preparation and service of food and alcoholic beverages are included. The course is taught at a Chicago hotel. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Hospitality 104. 150 minutes per week. 3 credit hours.

## HOSPITALITY 104

Introduction to the Hospitality Industries
History and organization of the Hospitality Industry, HotelMotel, Food Service, Travel-Tourism, with emphasis on career opportunities and jobs, economic projections and industry trends, and on the meaning of hospitality in each industry. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## HOSPITALITY 108

Introduction to Meeting and Convention Management and Planning
The study of the Meeting and Convention Industry; the role and responsibilities of planners employed by associations, businesses, and other segments of the industry, including the study of key concepts of Meeting and Convention Planning such as: specific goal setting; research and selection of locations; facilities; transportation; support services; development of marketing, promotion, and publicity programs to achieve goals. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Hospitality 104, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

## HOSPITALITY 202

## Front Office and Room Division Management

Overview of the front office operation within the context of the hotel industry, including the understanding of the special problems of room division management. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Hospitality 104, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HOSPITALITY 205

Hospitality Industry Purchasing
Study of organization and administration of quantity purchasing policies and procedures; specifications, inventory buying, receiving, and issuing of items used in hospitality operations. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## HOSPITALITY 209

Applied Meeting and Convention Management
Employsmaterial covered in previousMeeting and Convention Management courses and provides in-depth study of insurance, liabilities, legal aspects, managing exhibits, onsite management of catered events, and emergency and contingency plans. Using a case study format, each student will design and execute a convention/meeting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## [HDFS] HUMAN DEVELOPMENT AND FAMILY SERVICES (168)

HDFS 201
Human Development and Sexuality
A study of the social and psychological aspects of human sexuality. Topics include sexual development, cultural influences, gender identity, sexual dysfunctions, love and relationships. Emphasis will be placed on the mental and emotional aspects of human sexuality as well as current issues. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Psychology 201. 150 minutes per week. 3 credit hours.

## HDFS 202

Intimate Relationships
An overview of theories and research related to intimate/ romantic relationships as well as family members, friends, and professional. Students will be encouraged to think critically about the various components of healthy relationships including comparative research within self expectations and effects of such as perpetuated by the media and other sources. Topics include communication, conflict, love, stress, strains, and overall impact on relationships. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101, and Child Development 102.
150 minutes per week. 3 credit hours.

## HDFS 203

## Family Development Cross Cultural Perspective

Course includes information on families and culture through an examination of research on child development, child rearing across cultures, and issues of equity, power and privilege. Readings and discussion on how culture and context influence all aspects of development whereby students gain in-depth understanding of families and lifestyles, communication and conflict, domestic violence, dysfunctions within families and inter-generational families. Course also provides a knowledge base for family assessment, understanding one's own family, tools to prepare one to work with families in a variety of settings and across the lifespan. Topics such as child rearing, language differences, racial identity, cultural traditions, and socio-economics status will be covered. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101. 150 minutes per week. 3 credit hours.

## HDFS 204

## Family Life Education

Introduction to and history of the professional and practice of family life education, including needs assessment, evaluation of programs, understanding group process, and contexts of family life education. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101.
150 minutes per week. 3 credit hours.

## HDFS 205

Internship for Human Development
Participation in occupational area of study, work experience under supervision of both college and employer. Internship objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience at the site 15 hours per week. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completed and accepted application, Child Development 101, and Child Development 102; all courses in HD program including any special certificates.
2 lecture and 20 lab hours per week. 6 credit hours.

## COURSE DESCRIPTIONS

## [HUM] HUMANITIES (041)

## HUMANITIES 100

## Critical Readings in Humanities

Introductory course to humanistic studies. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## HUMANITIES 105

## The New World of Mass Media

Analysis and evaluation of the strengths, limitations, impact, and social media biases of both print and electronic mass media. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## HUMANITIES 107

Popular Culture - Mirror of American Life
Interdisciplinary investigation of relationships between American life and popular culture; includes defining popular culture and high culture; role of formulating popular culture in films, role of advertising in popular culture, stereotypes of the sexes and ethnic groups, role of sports in American life, and popular music and its audience and television. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## HUMANITIES 123

Introduction to Arts and Ideas
Interdisciplinary introduction to the arts and ideas through the study of masterpieces past and present. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HUMANITIES 141

## Afro-American Arts

Examination of African and Afro-American music, literature, art, and philosophy, stressing African sources of AfroAmerican heritage and their contribution to Western culture. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HUMANITIES 143

Introduction to Latin American/Latino Studies
An interdisciplinary study of Latin American cultures, including Latino cultures in the U.S., from literary, artistic and philosophical perspectives. It explores various links between cultures in the U.S. and other Latin American countries through the study of historical and artistic periods, major movements, and integrated theories. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HUMANITIES 145

Intro to Diversity/Ethnic Studies
An introduction to the broad field of diversity/ethnicity through the interdisciplinary study of art, music, literature, history, and philosophy, emphasizing the content, style, and historical context of the various diversity/ethnicity related artifacts, particularly those created by and featuring depictions of diverse/ethnic groups. Features African Americans, Latino/ Latin American, Native Americans, and European American artists, artistic expressions, and portrayals of these groups in the arts, by themselves and "outsiders" and the impact of these portrayals with the groups and society at large. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisites: English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HUMANITIES 201

## General Course I

Introduction to the interdisciplinary study of arts and ideas, with emphasis on principles of analysis and interpretation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HUMANITIES 202

## General Course II

Continuing the interdisciplinary study of arts and ideas, with emphasis on principles of analysis and interpretation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## HUMANITIES 203

## Arts of Contemporary America

Analysis and evaluation of major art forms of today - film, television, poster art, journalism, poetry, fiction, painting, and music. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HUMANITIES 205

World Literature I
Masterpieces of world literatures including principal works from selected literary periods and traditions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## HUMANITIES 206

## World Literature II Existentialism

Introduction to Existentialist philosophers, dramatists, and novelists. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HUMANITIES 207

## The Great Books

Focus on the formulation and ideas of Western civilization. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## HUMANITIES 208

Women in Creative and Performing Arts
Examination of the changing views of woman's nature, her relationship to man and to society as found in the creative and performing arts and philosophical works of a specific culture or cultures. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better.
150 minutes per week. 3 credit hours.

## HUMANITIES 210

Comparative Mythology
A comparative introduction to mythology throughout the world. The emphasis is on the nature of mythology through the study of mythological themes in folklore, myth, and legendary narratives and the visual representation of those themes. The course includes non-Western and multi- cultural components. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101 placement, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## HUMANITIES 212

## Non-Western Humanities

An interdisciplinary survey of significant intellectual and artistic achievements of non-Western cultures through selected works of literature, philosophy, visual art, music, and other performing arts. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101 placement, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## HUMANITIES 213

Hispano-American Arts and Literature I
An interdisciplinary survey of significant intellectual and artistic achievements of Hispano-American cultures through selected works of literature, philosophy, visual arts, music, and other performing arts. Reading and analysis of representative masterpieces from a variety of nationalities and epochs focusing on Western literature. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## HUMANITIES 214

Hispano-American Arts and Literature II
Continuation of Humanities 213; an interdisciplinary survey of significant intellectual and artistic achievements of HispanoAmerican cultures through selected works of literature, philosophy, visual arts, music, and other performing arts. Writing assignments, as appropriate to the discipline, are part ofthe course.Prerequisite:PlacementTest, orEnglish 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## HUMANITIES 215

## The Art and Philosophy of the African Continent

African culture of the past and present, including art, music, literature, history, language, political science, and economics. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

## HUMANITIES 220

## The African Image

Overview of Black-White relationships in Africa from end of $19^{\text {th }}$ Century to present as mirrored in literary works primarily by contemporary Black and White authors; special attention to native artistic traditions of Black Africa. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [432IBEW] IBEW

## 432IBEW 702

## Electrical Circuitry

Includes a study in circuitry commonly used in the residential housing industry in the Chicago metropolitan area, installation practices and hands-on wiring skills, such as splicing and termination. Writing assignments, as appropriate to the discipline, are part of the course.
3.5 lecture and 3 lab hours per week. 4.5 credit hours.

## 432IBEW 703

## Conduit Bending I

Focus on the various methods of bending and conduit employed in the electrical construction industry and on handtype benders and methods of conduit installation utilized in the commercial, industrial and residential housing industry. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 4.5 lab hours per week. 3.5 credit hours.

## 432IBEW 704

## Construction Technology

A study of common hardware wiring materials used in the electrical construction industry, including a first aid, personal safety, job site safety, the use of rope, knot basic rigging, drill gauges, drilling and tapping holes in metal, drill sharpening, using knockout sets, hole saws, concrete anchors and fastening devices, and the use of hand tools, drill motors, hammer drills, and grinding wheels. Writing assignments, as appropriate to the discipline, are part of the course.
3.5 lecture and 3 lab hours per week. 4.5 credit hours.

## 432IBEW 705

Print Reading I
Focus on residential prints and their use with the National Electrical Code. Writing assignments, as appropriate to the discipline, are part of the course.
175 minutes per week. 3.5 credit hours.

## 432IBEW 706

Conduit Bending II
Advanced conduit bending techniques utilizing mechanical leverage benders and hydraulic benders commonly used in the electrical construction industry, including hand-operated and automatic cutting and threading devices. Writing assignments, as appropriate to the discipline, are part of the course.
2.5 lecture and 3 lab hours per week. 3.5 credit hours.

## 432IBEW 707

## Fire Alarm Systems

Basic concepts and theory of installation and maintenance of fire alarms systems and fire suppression systems currently in use in the electrical construction industry, including testing, troubleshooting and safety techniques through hands-on training and field simulated problems and the Chicago and National Electrical Codes as they pertain to the installation and maintenance of fire alarm systems. Writing assignments, as appropriate to the discipline, are part of the course.
2.5 lecture and 3 lab hours per week. 3.5 credit hours.

## 432IBEW 708

## Motor Control Systems

Basic concepts and theory of installation, operation, and maintenance of motor control devices commonly used in the electrical construction industry, including skills in testing, troubleshooting, and safety techniques through hands-on training and the use of field simulated problems. Includes theory and the practical application of transformers as used in the electrical industry. Writing assignments, as appropriate to the discipline, are part of the course.
2.5 lecture and 3 lab hours per week. 3.5 credit hours.

## 432IBEW 709

## Print Reading II

Commercial and industrial construction prints and their use with both the Chicago Electrical Code and the National Electrical Code. Writing assignment, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 432IBEW 710

Programmable Control
Basic concepts and theory of installation, operation, and maintenance of programmable control systems commonly used in the electrical industry, including programming techniques and hands-on training in the lab on Allen-Bradley systems PL5/20, PLC5/11, and SLC 5/03 CPU programmable controllers. Writing assignments, as appropriate to the discipline, are part of the course.
3.5 lecture and 3 lab hours per week. 4.5 credit hours.

## Course Descriptions

## 432IBEW 711

Communications
The BICSI Installer level telecommunications cabling installation training is designed for individuals with 2 to 5 years of low voltage cabling experience, including ANSI/ TIA/EIA wiring Standards and the National Electrical Code. LAN cabling system characteristics and network topologies, media and media characteristics, transmission fundamentals, connectorization, grounding and bonding, pulling and terminating copper and fiber, testing and troubleshooting copper and fiber, splicing fiber, firestopping site surveys and safety practices. A period of structured on-the-job training to be completed at the student's workplace. Writing assignments, as appropriate to the discipline, are part of the course.
2.5 lecture and 4.5 lab hours per week. 4 credit hours.

## 432IBEW 712

HVAC Systems
The theory of thermal dynamics and the processes used in the heating, ventilation and air-conditioning systems. Hands-on training covers skills in piping, brazing, soldering, and the E.P.A. standards for charging, and evacuating airconditioning and refrigeration systems. This course meets the Refrigeration Service Engineers Society Technician Certification Standard. The midterm examination shall be the R.S.E.S. Technician Certification test. It will be mandatory to pass the R.S.E.S. Technician Certification test before becoming a journeyman. Writing assignments, as appropriate to the discipline, are part of the course.
3.5 lecture and 3 lab hours per week. 4.5 credit hours.

## 432IBEW 713

## Instrumentation

The basic concepts and theory of installation, operation, and maintenance of instrumentation control process commonly used in the electrical construction industry, including the theory of flow, pressure, temperature, and level. Calibration techniques are taught through hands-on training, bench testing, and lab work with a variety of instruments, the Fluke 702 Calibrator and the Rosemount Communicator. Writing assignments, as appropriate to the discipline, are part of the course.
3.5 lecture and 3 lab hours per week. 4.5 credit hours.

## 432IBEW 714

## Technical Math I

Calculations and applications of the formulas used daily in the first year apprentice course of study and in the electrica construction industry. Writing assignment, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 432IBEW 715

Technical Math II
Calculations and problem solving techniques used in the application of Ohm's Law in accordance with the National Electrical Code. Writing assignment, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 432IBEW 716

## Electronics

Basic electronics and its application to the communications industry, including basic electric theory, direct current, alternating current, writing Ohm's Law, the use and calibration of electrical test equipment, electrical safety, soldering skill, series, parallel and combination circuits, and electronic components. Writing assignments, as appropriate to discipline, are part of the course.
3.5 lecture and 3 lab hours per week. 4.5 credit hours.

## 432IBEW 717

## Structured Wiring

Focus on the wiring materials commonly used in the communications industry, including personal safety, jobsite safety, and shop safety as it applies to the communications industry. Applicable EIA/TIA standards, BICSI requirements, media characteristics, transmission characteristics, fire protection, documentation, grounding, bonding, electrical protection, and other relevant industry practices. Upon satisfactory completion of the course the student will be eligible for the BICSI Level I Installer Examination. Writing assignments, as appropriate to the discipline, are part of the course.
3.5 lecture and 3 lab hours per week. 4.5 credit hours.

## 432IBEW 718

## Integrated Systems I

Introduction to the basic concepts and theory of digital and analog based audio communications systems, including skills in installation, balancing, testing, and troubleshooting of audio communications equipment. Included are constant voltage audio systems, paging systems, background music systems, and sound reinforcement systems. Writing assignments, as appropriate to the discipline, are part of the course.
2.5 lecture and 3 lab hours per week. 3.5 credit hours.

## 432IBEW 719

Integrated Systems II
Basic concepts and theory of transmission and distribution of digital and analog based video signals, including transmission line theory and signal propagation along with installation, testing, and troubleshooting of video communications equipment. Writing assignments, as appropriate to the discipline, are part of the course.
3.5 lecture and 3 lab hours per week. 4.5 credit hours.

## COURSE DESCRIPTIONS

## 432IBEW 720

## Communication Systems Verification

Testing, benchmarking troubleshooting of fiber optic and copper based communications systems, including the proper use of field test equipment, electrical safety, transmission characteristics, fault location and analysis of field test results. Writing assignments, as appropriate to the discipline, are part of this of course.
2.5 lecture and 3 lab hours per week. 3.5 credit hours.

## 432IBEW 721

## Fiber Optics

Basic concepts and theory of digital transmission of communications over fiber optic communications cabling, including skills in installation, testing and troubleshooting of fiber optic connectors and cabling systems. This course meets the Fiber Optic Association Certification for fiber optic installation. Writing assignments, as appropriate to the discipline, are part of this course.
2.5 lecture and 3 lab hours per week. 3.5 credit hours.

## 432IBEW 722

## Computer Networking

An overview of the basics of networking from the component hardware to the topology and theoretical foundation of networks, including various types of networks, including and network topologies. Writing assignments, as appropriate to the discipline, are part of this course.
3.5 lecture and 3 lab hours per week. 4.5 credit hours.

## 432IBEW 723

## Industrial Control Systems

Focus on modern systems incorporating feedback loops, analog and pneumatic signals, and the smart family of transmitters. The dominant process variables - temperature, pressure, level, and flow - will be employed in the development of these skills. Covers electrical layout with an emphasis on initial conduit installation, reading blueprints of various building trades, calculating loads based on the electrical code, designing distribution systems, and sizing and protecting electrical conductors. Writing assignments, as appropriate to the discipline, are part of the course.
3.5 lecture and 2 lab hours per week. 4.5 credit hours.

## 432IBEW 724

## Electrical Power Systems

The theory of distribution and usage of electricity in common industrial settings, including the basics of power distribution with an emphasis on transformers and the four basic power systems: delta, corner grounded delta, high leg delta, and wyes, and largest user of this distributed power: rotating equipment - motors. Covers single phase and three phase motors. The single phase motors include shaded pole, AC series, permanent split capacitor and motors with starting relays. The three phase motors include wyes, delta and wye/delta motors. Covers the newest technique for motor control, variable speed drives and the theory of pulse width modulation, and the safe operation of frequency drive motors. Includes line lengths, over voltage, overheating, harmonics, and drive components. Writing assignments, as appropriate to the discipline, are part of the course.
3.5 lecture and 2 lab hours per week. 4.5 credit hours.

## 432IBEW 725

Low Voltage Systems
Basic concepts and theory of the installation and maintenance of low voltage systems currently in use in the electrical construction industry including installation, testing, troubleshooting, and safety techniques through handson training and field simulated problems. Covers topics in security, life safety, access, environmental controls, communications, data transfer, and data storage. The associated electrical codes are included as they pertain to installation and maintenance of low voltage systems. Writing assignments, as appropriate to the discipline, are part of the course.
2.5 lecture and 3 lab hours per week. 3.5 credit hours.

## Course Descriptions

## INTEGRATED \{see ESL (Integrated) (136)\}

[INTDSP] INTER-DISCIPLINARY STUDIES (104)

## INTER-DISCIPLINARY STUDIES 101 <br> College Success Seminar

Introduction to academic skills that foster success in college and after college, critical thinking, reading, and writing as well as study skills, time management and stress management, use of technology for communication and research. These skills will be learned through the topic of the course which will be based in the idea of "Self and Community," but will vary depending on the instructor and department teaching the course. Topics will be approached from a variety of perspectives that represent interdisciplinary academic inquiry, and students will consider how to take personal responsibility for academic and career choices through exploration of relationship between self and community. Students will be required to do either twelve hours of service learning related to the content of the course, or to meet other criteria for an equivalent number of hours spent in outside activities as determined by the instructor. Writing assignments, as appropriate to the discipline, are part of the course.
50-150 minutes per week. 1-3 credit hours.

## [ITALIAN] ITALIAN (052)

ITALIAN 101
First Course
Pronunciation and basic structures, speech patterns, and writing skills. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

ITALIAN 102

## Second Course

Continuation of Italian 101. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Italian 101, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.
ITALIAN 103
Third Course
Review and development of basic language skills, conducted in Italian. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Italian 102, or Consent of Department Chairperson. 200 minutes per week. 4 credit hours.

## ITALIAN 104

Fourth Course
Review of language structure and interpretation of readings, conducted in Italian. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Italian 103, or Consent Department Chairperson. 200 minutes per week. 4 credit hours.

## ITALIAN 206

## Intensive Oral Practice

Practice in spoken language, fluency, and accuracy. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Italian 104, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.
ITALIAN 213
Introduction to Modern Literature
Selections from contemporary writings, conducted in Italian. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Italian 104, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## ITALIAN 214

Readings in Literature
Works from selected historical periods, conducted in Italian. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Italian 104, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## [JAPANES] JAPANESE (054)

## JAPANESE 101

First Course
Pronunciation and basic structures, speech patterns, reading and writing skills. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## JAPANESE 102

## Second Course

Continuation of Japanese 101. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Japanese 101, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## COURSE DESCRIPTIONS

## JAPANESE 103

## Third Course

Review and development of basic language skills, conducted in Japanese. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Japanese 102, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## JAPANESE 104

## Fourth Course

Review of language structure and interpretation of readings, conducted in Japanese. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Japanese 103, or Consent Department Chairperson.
200 minutes per week. 4 credit hours.

## [LATIN] LATIN (0142)

## LATIN 101

## First Course Latin

Includes mastery of vocabulary and grammar, accidence, syntax, and etymology focusing on developing skills and strategies for acquiring new vocabulary and the understanding of sentences structure that increases readiness to acquire other languages, related and non-related, and provides techniques that can be applied in many other fields. Analysis of Latin roots of English words, parse and translate passages from Latin Literature, recognize derivatives found in the Romance Languages, cultural content. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, or English 100 with a C or better, or Consent of Department Chairperson. 200 minutes per week. 4 credit hours.

## LATIN 102

Second Course Latin
The study of more complex grammatical and syntactical constructions, including increase in Latin vocabulary and understanding of etymology. Analyze of Latin roots and English words, parse and translate more difficult passages from actual works of Latin Literature, and recognize derivatives found in the Romance Languages. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Latin 101, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours

## [LIB TECH] LIBRARY TECHNOLOGY (050)

## LIBRARY TECHNOLOGY 101

Introduction to Library Procedures
Vocabulary, tools, systems, organization and equipment of modern libraries. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## LIBRARY TECHNOLOGY 102

Multi-Media Technologies
Clerical and supervisory duties in scheduling, circulation, maintaining, and operation of audio-visual and reproducing equipment. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## LIBRARY TECHNOLOGY 125

Learning Resource/Library Practicum
Practice course in which students are placed in learning resource center/library situations. 20 hours per week plus two hour seminar. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Library Technology 101.
1-2 lecture and 3-20 lab hours per week.
1-6 credit hours.

## LIBRARY TECHNOLOGY 201

## Library Public Service

Clerical and supervisory duties required in reference and circulation areas. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## LIBRARY TECHNOLOGY 203

Materials Preparation Procedures
Clerical and supervisory duties required in catalog departments; familiarization with commercially produced card catalog sets, classification tables and indices, subject headings, filing, cross referencing, typing forms and records. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Library Technology 101.
150 minutes per week. 3 credit hours.

## Course Descriptions

## [LING] LINGUISTICS (132)

## LINGUISTICS 101

## Language and Culture

Examines the relationship between language and culture. Includes the language socialization of children, gender differences in language, standard varieties and dialects of language, the effects of language on thought, and the nature of language in personal relationships. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## LINGUISTICS 102

## Introduction to Linguistics

A general introduction to the theory of language, with a focus on language systems, phonology, morphology, syntax, semantics, and regional and social varieties of English. Examples of general linguistic principles will be drawn from English as well as other languages known to those who teach the course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LINGUISTICS 103

Instructional Media Second Language Teachers
Introduction to a variety of instructional media in classrooms
and learning centers. Includes creative and effective use, adaptive application of materials, selection and evaluation, use and maintenance, and special techniques and devices for class instruction. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in CIS 101, or CIS 120, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LINGUISTICS 104

## Cross-Cultural/Multi-Cultural Education

Study of complex problems facing educational institutions in multi-cultural or pluralistic communities. Includes the role of education as an agent for change and the study of effective teaching strategies and resources for cross-cultural and multicultural teaching. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LINGUISTICS 201

Issues in First and Second Language Acquisition
Topics in first and second language acquisition, applying principles to specific problems through case studies, simulation, special projects, or problem-solving procedures. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of $C$ or better in Linguistics 102, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## [LIT] LITERATURE (036)

## LITERATURE 110

Introduction to Literature
Representative poetry and prose. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 111

## Poetry

Reading of representative poems from various periods for analysis. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## LITERATURE 112

Drama
Reading of representative plays from various periods for analysis. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 113

## Fiction

Reading of representative novels and short stories from various periods for analysis. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## LITERATURE 114

Ideas In Prose
Introduction to significant prose writing in major areas of thought. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## LITERATURE 115

Great Books Seminar/Topics Literature
Focus on the Great Books Foundation's Great Books texts an examines in-depth the global themes in the literature for enrichment, stimulation, pleasure and greater selfknowledge. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of three credit hours. Consent of Department Chairperson required for repeatability. Prerequisite: Placement test, or English 100 with a grade of C or better.
150 minutes per week. 3 credit hours.

## LITERATURE 116

American Literature from Colonial Days to Civil War
Early American social and political documents, novels, short stories and poems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## LITERATURE 117

American Literature from the Civil War to the TwentiethCentury
American prose and poetry from 1865 to 1914. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.
LITERATURE 118
English Literature from its Beginnings
to the Age of Johnson
Important writers and representative literary forms from their beginnings to the Age of Johnson. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 119

## English Literature from the Romantic

## Revival to the Twentieth Century

Important writers and representative literary forms. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 120

Contemporary British and American Literature
Major British and American writers of fiction, poetry, and drama of the 20th century. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 121

## Contemporary African American Literature

Survey of major African-American writers from the period of Harlem Renaissance to present day. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## LITERATURE 122

Perspectives In Black Literature
Sequence and scope of writing development by Blacks in America; analysis and interpreting of major works of prose, poetry, and drama. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 123

Literature of the United States
from the Civil War to the Present
Development of the literature of the United States from the Civil War to the present through the analysis of representative texts. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 124

## Experimental Literature

New directions in writing; experiments in poetry, prose, drama, and exploratory writing. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## LITERATURE 125

## Psychology in Black Literature

Analysis of books by African-American writers from a psychological point of view. Begins with the autobiography of Frederick Douglass and concludes with Black experiences by contemporary writers Cleaver and Jones. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Psychology 201, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 126

Contemporary American Literature
Major American writers of fiction, poetry, drama, and essays of the 20th century. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## LITERATURE 127

Contemporary British Literature
Major British, Irish, and Scottish writers of fiction, poetry, drama, and essays of the 20th century. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101.
150 minutes per week. 3 credit hours.

## LITERATURE 128

## Latin American Literature

This course spans the centuries and the Western Hemisphere, including the pre-Columbian Mayan Indian authors of Popol Vuh and the world-renowned contemporary practitioners of magic realism, and the authors from Mexico, the Caribbean, Central America, and South America, including the historical and cultural context of the works. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 129

United States Latino(a) Literature
Explores the trends and movements of various periods of U.S. Latino(a) Literature in relation to U.S. Latino(a) social and cultural history. As part of the literature of the United States, these works are distinct from, although sometimes influenced by, Latin American Literature, which is written in Spanish or Portuguese by authors native to Latin American and Caribbean countries. U.S. Latino (a) texts in this coursepoetry, fiction, drama, memoir, chronicle-depict various issues and themes pertinent to this ethnic segment of the United States, including Latino (a) writers' stylistic and thematic contributions to American mainstream literature. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## LITERATURE 130

Children's Literature
Survey of children's books, stories, magazines, and related audio-visual material; criteria evaluated for building a literature program within the classroom. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## LITERATURE 131

## Survey of Afro-American Poetry

Historical and critical survey of African-American poetry; minor emphasis on Harlem Renaissance and major emphasis on contemporary African-American arts movements. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## LITERATURE 132

## Native American Literature

Emphasizing perceptions and perspectives, this introductory course will examine the construction of Native American identity by exploring the works of different Native American writers and filmmakers. .Engages with and interrogates the Eurocentric view of the Native Americans and the Native Americans' view of themselves. Emphasizes the history, style, and content of the literature, situating it in a political, social, and cultural context. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101 or Consent of Department Chairperson.
50 minutes per week. 3 credit hours.

## Course Descriptions

## LITERATURE 133

## African-American Fiction

Aesthetic values that determine quality of fiction written by African-Americans who profess a national consciousness; short fiction from anthologies, environment, style, and social implications emphasized; critical and creative writings required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 137

## The Black Woman In Black Fiction

Exploration of images of the African-American in novels and short stories. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 140

## Great Books: Literary Sources of Art

Focuses on the Great Books Foundation's Great Books texts and examines literary works as inspiration for art. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## LITERATURE 141

Great Books: Literary Sources of Music
Focuses on the Great Books Foundation's Great Books texts and examines literary sources as inspiration for music. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## LITERATURE 142

Great Books: Literary Sources of Opera
Focuses on the Great Books Foundation's Great Books texts and examines literary sources as inspiration for opera. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## LITERATURE 143

Great Books: Literary Sources of Dance
Focuses on the Great Books Foundation's Great Books texts and examines literary sources as inspiration for dance. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## LITERATURE 150

Women's Literature
Ideas and philosophy of women writers as represented in their works; problems of women and works portraying women characters in modern British and American literature. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 153

## Gay and Lesbian Literature

Guided each year by a central sub-theme of the Queer culture, this course focuses on literary words by gay, lesbian, bisexual transgendered individuals. Examines theories and their relevance in contemporary Queer Culture. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## LITERATURE 155

Literature and Film
Analysis of literature in film; comparison of literary and film techniques, verbal and visual language, and film and modern literature. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite:Placement Test, or English 101, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## LITERATURE 156

## Creative Non-Fiction

A survey course of creative nonfiction in a variety of forms; personal narrative essays, true crime nonfiction novels, and first person cultural criticism. This course introduces students to a genre of literature, to practical approaches to the determination of literary meaning, and to the concerns of literature in general. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 157

Graphic Novels
The world of graphic novels is a vast universe of stories ranging from the realistic and contemporary to the supernatural and historical. Students will read and discuss representative works with some attention to critical work and increase their enjoyment and appreciation of a variety of graphic novels, genres, and creators while determining literary meaning, form, and value. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## LITERATURE 211

## Shakespeare

Critical reading and discussion of representative Shakespearean histories, tragedies, comedies and sonnets. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 220

## World Literature

Survey of masterpieces in world literature: principal works and writers, literary periods, and traditions with selections from ancient times through present day. Writing assignments, as appropriatetothediscipline, arepartofthecourse.Prerequisite: English 101, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## LITERATURE 221

Topics in Literature:

## Romanticism in British and American Literature

A study of works that exhibit the trends in literature and thought in Britain and America in the nineteenth century, and their Continental cross-currents. The course may emphasize particular authors, literary movements, or the development of a genre, or early examples of contemporary concerns. It may trace a problem, such as industrialization of the shift to urban life. Topics may change semester to semester but the chronological parameter will remain the same and the relevance to Literature 220 will be emphasized. Writing assignments, as appropriate the discipline, are part of the course. Prerequisite: Literature 220, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 223

## Introduction to Literary Genres

Introduction to basic literary genres and their characteristics. Includes development of critical judgment and skill in analysis of literary works. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## LITERATURE 299

Science Fiction: Psychology and Prophecy
A survey of major writers of science fiction. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

LOGISTICS/TRANSPORTATION/DISTRIBUTION
(Also, see TRNS 330)

## [340MFGT] MANUFACTURING (340)

## 340MFGT 101 <br> Introduction to Welding

Introduction to the principles of welding techniques and various welding shop equipment presently used in most welding shops, including welding techniques, welding shop measurement, layout work, sawing, MIG welding operation, TIG welding operation, oxy/act cutting, and plasma cutting. Writing assignments, as appropriate to the discipline, are part of the course.
6 lab hours per week. 3 credit hours.

## 340MFGT 102

## Blueprint Reading, Dimensioning and Tolerances

This course is an introduction to blueprint reading in the Manufacturing Technology program. Emphasis on analysis and interpretation of drawings applicable to all gear manufacturing. Includes principles and multi-view projection, sections, dimensions, characteristics, notesandspecifications. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 340MFGT 103

Intro to Total Quality Control
Introduction to Quality Control and the development of the concept of total quality control engineering, process improvement and quality information systems. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 340MFGT 104

Statistical Process Control (SPC)
Introduction to various distribution curves. Statistical control charts and the interpretation and use of process and product control data, including statistical process control and how to implement SPC in a manufacturing environment. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 340MFGT 111

Machining Processes I
Study of the theory and techniques in a multiple spindle manufacturing production environment. Covers orientation, physical requirements and procedures, housekeeping and safety, work habits and attitudes, screw machine prints, screw machine terminology, and tool crib familiarization and procedures. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 4 lab hours per week. 3 credit hours.

## Course Descriptions

## 340MFGT112

Machining Processes II
Study of Screw Machine Metrology, covering use of machinists' scales, snap and other gauges, micrometers, and other instruments utilized in the multiple spindle production environment. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 4 lab hours per week. 3 credit hours.

## 340MFGT 113

## Multiple Spindle III

A study of theories and principles of multiple spindle practitioners utilizing practical lab applications. Study will include equipment operations such as tool grinding, electrical operations, tooling, and various service setting techniques. Writing assignments, as appropriate to the discipline, are part of the course.
4 lecture and 4 lab hours per week. 6 credit hours.

## 340MFGT 114

## Multiple Spindle IV

A study of the theories and principles utilized by multiple spindle practitioners in manufacturing industries. The course includes various machine set-ups including turret tool bits, turret drilling, cross slide finishes, tapping and accelerating tools. The study will also include uncommon problems and solutions as well as employability skills. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 10 lab hours per week. 7 credit hours.

## 340MFGT 123

## CNC Milling Operations \& Programming

This course introduces the programming setup and operation of CNC machining center. Topics include programming formats, control functions, program editing, part production, and inspection. Various projects will strengthen the proper use, programming, troubleshooting of this equipment in the manufacturing setting. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 4 lab hours per week. 3 credit hours.

## 340MFGT 137

## CNC Turning Operations \& Programming

This course introduces the programming, setup, and operation of CNC turning centers. Topics include: programming formats, control function, program editing, part production and inspection. Various projects will strengthen the proper use, programming and troubleshooting of this equipment in the manufacturing setting. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 4 lab hours per week. 3 credit hours.


#### Abstract

340MFGT 138 Introduction to Solidworks This course is an introduction to the new designing techniques and capabilities of solid modeling using the Solidworks software and provides hands-on experience to build parametric models of basic parts and assemblies with dynamic operation of components. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.


## 340MFGT 191

## Industrial Electricity

A study of DC and AC electricity as applied to industrial circuits. The topics include fundamentals of circuit analysis, single and three phase circuits, parameters, safety issues in industrial electricity, such as current, voltage and power and troubleshooting methods using test equipment. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 4 lab hours per week. 4 credit hours.

## 340MFGT 201

Supervised Work Based Learning
Provides an opportunity to perform in an industrial setting. Students are placed in a college-approved employment situation for eight weeks on a full-time basis. Writing assignments, as appropriate to the discipline, are part of the course.
15 lab hours per week. 3 credit hours.

## 340MFGT 207

Introduction to MASTERCAM
Covers MASTERCAM software to create post geometry and assign toolpath to the geometry. By translating using a postprocessor, CNC programs can be automatically generated and communicated to the machine tolls in the Manufacturing Lab. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 340MFGT 215

Multiple Spindle V
Advanced study emphasizing practical and theoretical problems involving multiple spindle set up, operation, and production. Strongly recommend concurrent enrollment in Manufacturing Technology 201. Writing assignments, as appropriate to the discipline, are part of the course.
12 lab hours per week. 6 credit hours.

## 340MFGT 216

CNC Machining
CNC machinery as it applies to the operator, including introduction to CNC set-up, tooling, operation, and trouble shooting. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## Course Descriptions

## 340MFGT 253

## Pneumatics

Study of the basic principles of pneumatics, with emphasis on schematic interpretation, valves, actuators, compressors, line sizing and dryers, including the use of supplier catalogs and technical manuals. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## 340MFGT 255

## Industrial Hydraulics

Study of basic principles of hydraulics; emphasis on schematic interpretation, valves, actuators, compressors, line sizing, fluid viscosity, and reservoir capacity, including instruction in the proper use of supplier catalogs and technical manuals. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## 340MFGT 291

## Programmable Logic Controllers

Basic concepts and skills needed to program and apply programmable logic controllers in industry. Overview of basic terminology, ladder programming, memory structure, processing and programming devices. Students will also experiment in operation, programming and industrial applications. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## 340MFGT 292

## Principles of Mechanisms

Understanding and analysis of basic principles of motion characteristics as it relates to industrial mechanisms. Introduction to working principles of drive mechanisms, bearings, lubricants, cams, gears, and pulleys, including basic troubleshooting and maintenance procedures used in industrial settings. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## 340MFGT 295

## Electrical Motor Controls

A study of different types of electrical motor controls applied currently to industrial circuits, including safety issues, instrumentation, tools, interpretation of line diagrams, and the overview of different types of motor controls. Troubleshoot and repair problems related with different motor control applications in the industry. Writing assignments, as appropriate to the discipline, are part of the course. 1 lecture and 4 lab hours per week. 3 credit hours.

## 340MFGT 297

Advanced Mechanical Systems
Introduction to Mechanical Drive systems, basis and key fasteners, power transmission systems, v-belt drives, heavy duty $v$-belt drives, $v$-belt selection and maintenance, lubrication concepts, torque and power measurement, selection and application of hand and power tools, ratchets, torque wrenches, and torque settings forequipmentassembly. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 4 lab hours per week. 3 credit hours.

## [MATH] MATHEMATICS (045)

## MATHEMATICS 098

## Beginning Algebra with Geometry

Algebra of real numbers, integer exponents, polynomial operations, factoring, rational and complex expressions, linear equations, word problems, quadratic equations and graphical and algebraic solutions of simultaneous linear equations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Passing grade in Foundational Studies Math 3001, and Foundational Studies Math 3002, or Placement Test.
200 minutes per week. 4 credit hours.

## MATHEMATICS 099

## Intermediate Algebra with Geometry

Algebraic operations involving rational exponents, including scientific notation. Algebraic expressions, including radical and rational expressions. Solutions of quadratic, quadratic in form, rational, radical, and absolute value equations. Solutions of compound linear inequalities. Solutions and manipulations of literal equations. Graphical and algebraic solutions of systems of linear equations in two and three variables; graphical solutions to systems of linear inequalities. Graphs of linear and quadratic equations. Geometry topics: perimeter, area of geometric figures, triangles, rectangles, and circles; volume of sphere, cylinder and pyramid. Pythagorean Theorem and distance formula. Similarities and proportions. Applications of problem-solving skills are emphasized throughout the course. Student should be exposed to graphing calculator technology and/or computer algebra systems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Compass Placement Test, or Grade of C or better in Math 098, or Consent of Department Chairperson.
250 minutes per week. 5 credit hours.

## Course Descriptions

## MATHEMATICS 107 <br> Mathematics for Technicians I <br> Designed to provide mathematical tools for students in terminal technical curricula; emphasis on practical aspects of mathematics and less upon the theoretical; topics include elementary algebra operations, simultaneous and quadratic equations, exponents and radicals, logarithms, introduction to trigonometry, vectors, and use of calculator. Writing assignments, as appropriate to the discipline, are part of the course. <br> 50-250 minutes per week. 1-5 credit hours.

## MATHEMATICS 108

Mathematics for Technicians II
Continuation of Mathematics 107. Topics include trigonometric functions, solution of oblique triangles, vectors, Cartesian and polar coordinate systems, graphs of functions and basics of differential and integral calculus. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Math 107, or Placement Test, or Consent of Department Chairperson.
50-250 minutes per week. 1-5 credit hours.

## MATHEMATICS 109

## Concepts in Mathematics

Selected topics from various branches of mathematics illustrate the development of important ideas in mathematics and how these concepts are interrelated. Topics include sets and logic, numbers and sequences; measurement, interest and percent; calculators and computers; equations and linear programming, probability and statistics. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## MATHEMATICS 118

## General Education Math

This course is designed to fulfill general education requirements. It is not designed as a prerequisite for any other college mathematics course. This course focuses on mathematical reasoning and the solving of real-life problems. Three topics are to be studied in depth, chosen from the following list: counting techniques and probability, game theory, geometry, graph theory, linear programming, logic/set theory, mathematics of finance, and statistics. Mathematical modeling must be integrated in any combination of topics selected. Applications involving problem-solving skills are emphasized throughout the course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Math 099 with a C grade or better, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## MATHEMATICS 120

## Modern Mathematics

Foundations of elementary mathematics to develop appropriate backgrounds for pre- and in-service teachers. Introduction to new materials of present day mathematics programs. Art and science of mathematics stressed over the usual skills and development. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Math 099 with a C grade or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MATHEMATICS 121

Mathematics for Elementary Teachers I
Focus on mathematical reasoning and problem solving. Topics include operations with rational and irrational numbers, sets, functions, logic, numeration systems and number theory, solution of linear equations in one variable. Included Are problem-solving with the use of calculators and computers. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Math 099 with a C grade or better, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## MATHEMATICS 122

Mathematics for Elementary Teachers II
A continuation of Math 121. Topics include probability and statistics; lines, angles, polygons, Pythagoran Theorem, circles, solids, areas, volume, measurements. Applications are included throughout course. Problem solving with the use of calculators and computers is emphasized. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 121 with a grade of C or better, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## MATHEMATICS 125

Introductory Statistics
Emphasizes on interpretations and applications of techniques using descriptive and inferential statistics. Topics include: frequency distributions, histograms, and measures of central tendency, measures of dispersion, and measures of position, probability concepts, the binomial distribution, the normal distribution, the Central Limit Theorem, confidence intervals, hypothesis testing, and an introduction to correlation. The use of technology, e.g., graphing, calculator, computer software, etc., is an integral part of this course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 099 with a grade of C or better, or Placement Test, or Consent of Department Chairperson. 50-200 minutes per week. 1-4 credit hours.

## Course Descriptions

## MATHEMATICS 126

Algebra for Middle School Teachers
Focuses on the concept of functions in college algebra and the needs of middle school teachers in accordance to the National Council of Teachers of Mathematics Standards for Teaching Mathematics. Topics include basic definition of different functions and their properties. The following algebraic concepts will be explored: linear functions, systems of linear equations, quadratic functions, non-linear data, combinatorics, probability, exponential functions, log functions, square root functions, absolute value, and trigonometry as periodic functions. Problem solving using calculators, CBLs, and computers is emphasized throughout the course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 121, and Math 122.
200 minutes per week. 4 credit hours.

## MATHEMATICS 127

Geometry/Trig For Middle School Teachers
This course focuses on the concepts of plane and solid geometry and trigonometry. It is designed to meet the needs of a middle school teacher in accordance with the National Council of Teachers of Mathematics Standard and the Professional Standards for Teaching Mathematics. Topics include basic definitions and properties of plane and solid figures, congruence, similarity, constructions, Pythagorean Theorem, measurements, transformations, the unit circle and right triangle trigonometry. Problem solving with the use of calculators and computers is emphasized throughout the course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## MATHEMATICS 140

## College Algebra

Emphasis on the notion of a function as a unifying concept. Families of functions and their characteristics include: polynomial, rational, exponential and logarithmic functions, solving inequalities and systems of non-linear equations, and applications involving problem-solving skills. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 099 with a grade of C or better, or Placement Test, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## MATHEMATICS 141

## Plane Trigonometry

Trigonometric functions and application of trigonometry to the sciences, including definitions, properties and graphical characteristics of trigonometric functions; radian measure; trigonometric identities and equations; Law of Sines and Law of Cosines; inverse trigonometric functions; DeMoivre's Theorem; and vectors, and applications involving problemsolving skills will be emphasized throughout the course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 140 with a grade of C or better, or Placement Test, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MATHEMATICS 143

## Precalculus

Emphasizes the notion of a function as a unifying concept for the topics of college algebra and trigonometry. Families of functions and their characteristics include: polynomial functions; rational functions; exponential and logarithmic functions; and trigonometric functions; and applications involving problem-solving skills. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 099 with a grade of C or better, or Placement Test, or Consent of Department Chairperson.
300 minutes per week. 6 credit hours.

## MATHEMATICS 144

## Finite Mathematics

Covers mathematical applications that are useful in solving problems in business and social science, including linear functions, linear systems, linear programming, finance, set theory, logic, counting techniques, and probability theory. The use of technology, e.g., graphing calculator, computer software, etc., is an integral part of this course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 140 with a grade of C or better, or Placement Test, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## MATHEMATICS 146

## Discrete Mathematics

Introduction to mathematical analysis of finite collections and mathematical foundations of sequential machines, digital logic circuits, data structures, and algorithms. Includes sets, counting, recursion, graph theory, nets, automata, and formal grammars and languages. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 140 with a grade of C or better, or Placement Test, or Consent of Department Chairperson. 200 minutes per week. 4 credit hours.

## Course Descriptions

## MATHEMATICS 165

## Computer Mathematics

Concepts concerning sets, significant digits, flow charts. The decimal, octal, binary and hexadecimal number systems. Elementary symbolic logic. Rational numbers in nondecimal bases. Scientific notation. Operations with matrices. Graphical methods of linear programming and introduction to the simplex method. Elements of Boolean algebra. Rudiments of a programming language will be presented. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 099 with a grade of C or better, or Placement Test, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MATHEMATICS 202

## Number Concepts/Mid School Teaching

This course has been designed keeping both the Illinois Professional Content Standards for Teaching (Mathematics) content necessary to prepare students to be middle school mathematics and science teachers. A wide range of topics across number of theory and measurement will give the students a grasp of the depth and breadth of mathematics outside of the traditional course structure. Problem solving, estimation, measurements, and construction of simple theories of numbers will be treated with and without the use of technology. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 126, or Math 140, or Math 143.
200 minutes per week. 4 credit hours.

## MATHEMATICS 204

Calculus for Business and Social Sciences
Introduction to differential and integral calculus with applications pertinent to business and social science. The five-credit hour course will include functions of several variables, partial derivatives, maximum, minimum of functions of several variables and LaGrange multipliers. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 140 with a grade of C or better, or Placement Test, or Consent of Department Chairperson.
50-250 minutes per week. 1-5 credit hours.

## MATHEMATICS 207

Calculus and Analytic Geometry I
Equations of lines, circles and conic sections, limits, and continuity. Derivatives and their applications to curve sketching, maxima-minima and related rate problems. The anti-derivative and definite integral, including change of variables and the fundamental theorem of calculus. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 140, and Math 141, or Placement Test, or Consent of Department Chairperson. 250 minutes per week. 5 credit hours.

## MATHEMATICS 208

Calculus and Analytic Geometry II
Derivatives of trigonometric and inverse trigonometric functions, logarithmic, and exponential functions. Techniques and applications of integration. Indeterminate forms and L-Hospitals rule. Improper integrals, series and power series. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 207 with a grade of C or better, or Consent of Department Chairperson.
250 minutes per week. 5 credit hours.

## MATHEMATICS 209

Calculus and Analytic Geometry III
Curves in the plane and in 3 spaces. Polar coordinates and parametric equations. Vectors in 2 dimensional and 3 dimensional space. Derivatives of vector-valued functions. Partial derivatives. Double and triple integrals. Applications. Line integrals and Greens theorem. Divergence and curl. Surface integrals. Gauss theorem and Stokes theorem. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 208 with a grade of C or better, or Consent of Department Chairperson.
250 minutes per week. 5 credit hours.

## MATHEMATICS 210

## Differential Equations

Afirst course in ordinary differential equations; solutions of first order and first degree differential equations, linear differential equations with constant co-efficients. Linear differential equations of higher order, special differential equations of second order and differential equations of first order but not of first degree. Numerical methods, series solutions, and applications included. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 208 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MATHEMATICS 212

## Linear Algebra

Introduction to Linear Algebra for students who have studied some calculus. Emphasis on computations with vectors and matrices including systems of linear equations and matrices, determinants, vectors in Euclidean space, abstract vector spaces, linear mappings, computation of eigenvalues and eigenvectors. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 208 with a grade of $C$ or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## Course Descriptions

## MATHEMATICS 214

Advanced Calculus for Business and Social Science
Topics include related rates, differentials, LaGrange and simple differential equations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 204 with a grade of C or better. 150 minutes per week. 3 credit hours.

## MATHEMATICS 216

## Statistics for Business Majors

The basic concepts of statistical analysis used in business decision-making, including probability and how uncertainty is dealt with in real life. Included are: measure of central tendency and variability, random variable and probability distributions, estimation, tests of hypotheses, chi square tests, linear regression and correlations and one-way analysis of variance. Applications are included throughout the course. Problem solving with the use of calculators and computers is emphasized. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Consent Department Chairperson.
200 minutes per week. 4 credit hours.

## MATHEMATICS 225

## Honors Math Survey I

Survey in general mathematics for the liberal arts student, includes history, sets, number bases and logic, algebra of the real number system, an introduction to probability and statistics, calculators and computers. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## MATHEMATICS 299

## Special Topics Mathematics

Special Topics in Mathematics will be discussed along with appropriate computer and calculator activities. New developments will be emphasized, especially materials useful in K-12 education and industry. Each special topics course will have a sub-title. Students can take courses with different sub-titles for credit. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times when topics are different, and may count for a maximum of six variable credits. Consent of Department Chairperson required for repeatability. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
50-300 minutes per week. 1-6 credit hour.

## MECHANICAL TECHNOLOGY

(also see CAD Technology 049)

## [MEDIACM] MEDIA COMMUNICATIONS 011

(also see Communication Media (004)

## MEDIA COMMUNICATIONS 102 <br> Announcing

Develops the ability to transform written copy or script into voice performance, emphasizing copy preparation, breath control, pronunciation, articulation, use of full dynamic range, microphone techniques, and hand signals. A variety of copy, including commercials, news, and public service announcements are covered. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Eligibility for English 100, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MEDIA COMMUNICATIONS 145 <br> Introduction to Media Communication

A survey of the history, technology, structure and operation of the telecommunications industry. Topics include advertising, audience measurement, network television, radio station operations, cable television, broadcast regulations and licensure, satellite communications, pod casting, and careers in media communications. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Eligibility for English 100, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MEDIA COMMUNICATIONS 160 <br> History of Radio Genres

An in-depth look at the progression of radio since its inception, as well as examination of the huge impact that its had on American culture. Introduction to the different radio genres, and they will examine the drastic transition these genres have undergone over the years. Writing assignments, as appropriate to the discipline are part of the course. Prerequisite: Placement Test, or English 100 with a C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

## MEDIA COMMUNICATIONS 170

## The History of Television

An in-depth look at the progression of television since its inception and examination of the massive impact that its existence has had on American culture. Students will also study the different television program genres, such as soap operas, sitcoms, newscasts, reality shows, and many others, as they examine the sweeping changes that have taken place in television programming over the past several decades. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Eligibility for English 100, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## MEDIA COMMUNICATIONS 190

Language, Culture and Media
Television, radio, print, and film reflect and transmit culture through language and images. Using the media as a context, this course will examine a variety of depictions of culture and language and will evaluate perceptions about language and culture within various segments of society. Students will be encouraged to think critically about language choices and to analyze the impact of language and media on those choices. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Eligibility for English 100, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MEDIA COMMUNICATIONS 203

## Media Writing

Creation and preparation of scripts for radio and television programs and segments which include news copy, commercial copy, public service announcements, continuity and dramatic copy. Special attention will be paid to format and form. Word processing skills will be utilized in this course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101 with a grade of C or better.
150 minutes per week. 3 credit hours.

## MEDIA COMMUNICATIONS 210

## Radio and TV Workshop

Workshop in both mediums, emphasizing variety of producing air programs; location instruction and televising of meetings, plays, sports events for TV and radio; both media will be used to compare and isolate various techniques of each area. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## MEDIA COMMUNICATIONS 221

## Radio Production I

Introduction to the audio control system and training in operation of related equipment. Emphasis on how the various components integrate into a system. Demonstration of expertise through class exercises laboratory projects will be required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Eligibility for English 100, and concurrent enrollment in Media Communications 145, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## MEDIA COMMUNICATIONS 222

## Radio Production II

Review of the audio control system and its various equipment components. Emphasis on creating, producing, and directing announcements, news and drama which may be utilized by Kennedy Kings College's own WKKC FM. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Media Communications 221, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## MEDIA COMMUNICATIONS 223

## Advanced Broadcast Writing

A direct continuation of \#MC 203, this class is provides experience in writing longer scripts, for various types of media outlets such as television, radio, and the Internet. With an emphasis on content, clarity and flow. Basic script formats, terminology, and writing techniques for documentaries, commercials, public service announcements, promos, as well as entertainment and fictional programs. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101, and Media Communications 203 with a grade of $C$ or better.
150 minutes per week. 3 credit hours.

## MEDIA COMMUNICATIONS 224

## Broadcast Performance

Enhances and extends the skills developed in (MC 102). Develops the ability to perform in various on-air capacities in radio, television and other broadcast formats, emphasizing copy analysis and preparation, ad-libbing, constructive self-critiques, and development of personality, style and conversational delivery. Use of full dynamic range, microphone techniques, and hand signals will be emphasized. A variety of copy and situations, including hosting, anchoring, reporting, commercial announcing, and other specialties will be covered. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a C or better, and Media Communications 102 with a grade of C or better, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## Course Descriptions

## MEDIA COMMUNICATIONS 231

## TV Production I

Introduction to the television production system and training in the operation of the video and audio equipment necessary to produce programming. Emphasis will be how the various components integrate into a system. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Eligibility for English 100, and concurrent enrollment in Media Communications 145, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## MEDIA COMMUNICATIONS 232

## TV Production II

Continuation in the development of expertise in the use of various audio and video components. Television production projects will require creating treatments, storyboards, and scripts, for the production of a final program. Emphasis on integration of equipment, production personnel, and script to create finished television production. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Media Communications 231, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## MEDIA COMMUNICATIONS 234

## Producing for Television

An examination of the vital role of the television producer, focusing on the three areas of production: pre-production, production and post production. Emphasis of the importance of planning, show creation, budgeting, scheduling, management, team building, field producing, and delivery. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Media Communications 231, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## MEDIA COMMUNICATIONS 240

Mini-Cam and Videotape Editing
Evaluate, set-up, light, mike, and properly record in a singlecamera remote environment for desired production results. Learntolog and digitallyeditrecordedfootage into professional programs and segments, using video editing software and digital effects generator. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Media Communications 231, or Media Communications 232, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## MEDIA COMMUNICATIONS 241

## Video Editing

Introduction to the fundamentals of digital non-linear editing concepts and practices. Basics of importing (digitizing) video, basic editing techniques, trimming clips, basic effect palettes, overlaying audio with video, recording narration and music; and saving the finished production to digital as well as Quick Time file. Students learn to storyboard their ideas and develop the ability to edit in sequence to tell a story. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Media Communications 231, and Media Communications 240 with a grade of $C$ or better.
2 lecture and 2 lab hours per week. 3 credit hours.

## MEDIA COMMUNICATIONS 242 (formerly 235)

## Television Graphics

The important function of television graphics in the packaging of television programs, focusing on the operation of the character generator, digital effects generator, still store, 35 mm slide projector, 16 mm film projector, and the graphics capabilities of the video switcher and their use in graphics packaging.. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Media Communications 231, or Media Communications 241, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## MEDIA COMMUNICATIONS 244

Adv. Video Gripping \& Lighting
Advanced television production experience, focusing on in studio multi-camera productions, with an emphasis on production (lighting, equipment setup, etc.) as well as single camera EFP (electronic field production), and ENG (electronic news gathering) techniques. Students will examine the tools and techniques of lighting for television, both on location and in the studio. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, or English 100 with a grade of C or better, and Media Communications 231, and Media Communications 240 with a C or better, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## MEDIA COMMUNICATIONS 245

Advanced Production Workshop
Learn the steps necessary to develop a program concept and to turn it into a completed radio and/or television program. Emphasis is placed upon coordinating of technical, budgetary, personnel, scheduling, and equipment aspects of achieving effective productions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Media Communications 222, and Media Communications 232, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## Course Descriptions

## MEDIA COMMUNICATIONS 260

Media Sales and Marketing
A study of sales and marketing relative to broadcasting, cable television, and the internet. Introduction to the principles of packaging a product to advertisers and program buyers. Review of organization management at television stations, networks, cable outlets, and Internet Service Providers (ISP). Emphasis is placed upon theoretical practical aspects of developing presentation skills, including instruction and utilization of media research materials such as rating books in positioning sales. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Media Communications 145, orConsent of Department Chairperson. 150 minutes per week. 3 credit hours.

## MEDIA COMMUNICATIONS 261

## Project Mgmt. \& Team Dynamics

Basic principles of management, including the role of "executive producer" of a media related project. The course emphasizes skills and techniques used for goal setting, strategic planning, organization, communication, risk management, and team collaboration. Student will work together in production teams, as they conceptualize, design and execute a digital media production project. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, or English 100 with a C or better, and Media Communications 221, and Media Communications 231, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## MEDIA COMMUNICATIONS 270

Intro to Radio \& TV Programming
Survey of programming from various perspectives, including: comparison and contrast of major network approaches vs. approaches of independent producers. Introduction to program strategies through elements to be considered in positioning programs on the air. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Media Communications 145, and Media Communications 221, and Media Communications 231, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MEDIA COMMUNICATIONS 271

Intro to Interactive Media
A practical introduction to interactive media, otherwise known as the Internet, including While in this course, students will become better acquainted with new technologies and methods for creating participatory media, while making it available through nontraditional outlets. Students will develop new ideas for assisting in this tradition, with both the Internet, as well as the traditional broadcast space. Class topics will also cover the technologies that go hand in hand with both the creation and utilization of interactive "new" media., emphasizing group projects. Introduction to the unique issues encountered while producing for interactive media, such as streaming, bandwidth, compression, memory allocation, and optimization. Various distribution media will be examined including CD-ROM, DVD, and the Internet. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, or English 100 with a C or better, and Media Communications 145, and CIS 120 with a grade of C or better, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## MEDIA COMMUNICATIONS 272

## Adv AUD/VID Prod-Interactive Media

Provides advanced practical knowledge and experience in the area of digital video production as it relates to interactive media. Students will explore further the changes and technical challenges associated with web-based video as a communication medium. Through group and individual projects, students will learn to use interactive delivery systems to create effective user experiences. Writing assignments, as appropriate to the discipline are part of the course. Prerequisite: Placement test, or English 100 with a C or better, and Media Communications 231, and Media Communications 271 with a grade of C or better, or Consent of Department Chairperson..
2 lecture and 2 lab hours per week. 3 credit hours.

## MEDIA COMMUNICATIONS 295 (formerly 250)

## Practicum Internship

Planned and supervised training in which the application of theory to actual practice prepares a student for working independently toward specific career objectives. The internship/practicum generally occurs after the student has completed eighteen Media Communications credit hours. It takes place at a regular worksite and instruction/supervision is provided by an employee at the worksite. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson. 2 lecture and 20 lab hours per week. 6 credit hours.

## Course Descriptions

## MEDIA COMMUNICATIONS 298 (formerly 275)

Audio, Video or Internet Capstone
This course is intended to provide students with the opportunity to integrate their television, radio, and internet skills be preparing an actual portfolio suitable for employment in the media industry. With an emphasis on quality, the Capstone portfolio will feature a variety of product projects to showcase specific, industry related skills obtained while enrolled in the Media Communications program at KennedyKing College. In addition, students will create a marketing package for themselves, including a resume, business cards, interactive website, and audition/resume disk. Student must obtain consent of Program Director to take this course concurrently with their internship course, MEDIACM 250. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Satisfactory completion of all Media Communications courses, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## [MENHLTH] MENTAL HEALTH (118)

## MENTAL HEALTH 223

## Introduction to Addictions Studies

Includes treatment strategies, perspectives, and understanding of the addiction process and its effects upon the individual, the family, employers, and society. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## MENTAL HEALTH 224

Principles and Practices of Addictions Studies
Basic clinical skills in alcoholism and substance abuse field; strategies in working with denial and resistance; diagnostic and assessment skills; history-taking; individual, family and group treatment modalities utilized with the alcoholic and/ or substance abuser; termination process; aftercare and referral process. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Mental Health 223, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MENTAL HEALTH 225

Introduction to Developmental Disabilities
Survey of developmental disabilities, from birth through adulthood, with emphasis on identification and evaluation. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## MENTAL HEALTH 228

Principles of Mental Health Practices
Mental health, the settings in which mental health problems are treated, and common types of mental health problems; review of treatment strategies and methods of intervention. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## MENTAL HEALTH 229

Practicum In Addictions Treatment
Students work 20 hours per week in a mental health setting in the community under supervision of mental health professionals and participate in a two-hour seminar once a week, relating field experiences to mental health theory. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Mental Health 228, or Consent of Department Chairperson.
2 lecture and 20 lab hours per week. 6 credit hours.

## MENTAL HEALTH 230

Addictions and Family Treatment
Study of affects of alcoholism and substance abuse on the family; how spouse, children and extended family react to problematic drinking or drug abuse; examination of treatment, including self-help groups. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Mental Health 223, and Mental Health 224, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MENTAL HEALTH 231

Addictions Treatment of Special Populations
Application of needs of special treatment populations, diagnosis and treatment of adolescent and elderly clients, sexual issues; patient education, prevention strategies, spirituality, relapse prevention and employee assistance programming, AIDS, and eating disorders. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Mental Health 223, and Mental Health 224, and Mental Health 230, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

[MCROBIO] MICROBIOLOGY (024)

## MICROBIOLOGY 233

## General Microbiology

Morphology, physiology, classifications and culture of bacteria and related organisms. The role of bacteria related to human welfare and to plants and animals. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 114, or Biology 121, or Biology 226, or Consent Department Chairperson. Not more than an accumulated 8 credit hours will be counted towards graduation.
2 lecture and 4 lab hours per week. 4 credit hours.

## MICROBIOLOGY 234

## Applied Microbiology

A sequence course to a second semester fundamentals course in microbiology. Designed for students majoring in biotechnology. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Microbiology 233.

2 lecture and 4 lab hours per week. 4 credit hours.

## MICROBIOLOGY 235

Pathogenic Microbiology
Classification, morphology, and biochemical activities of microorganisms found in skin, eyes, nose and throat sputum, blood, urine and feces. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Microbiology 233, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## MICROBIOLOGY 240

## Microbiology of Water and Dairy Products

Principles and procedures of proper water, soft drink, and milk supply. Theory and techniques of routine analysis, comparison, and evaluation of methods and tests. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Microbiology 233, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## [MOR SCI] MORTUARY SCIENCE (128)

## MORTUARY SCIENCE 102

Microbiology for Embalmers
The basic principles of microbiology related to the principles of funeral service education, especially as they pertain to embalming sanitation, morgue disinfection, public health, and embalming practice. The development and use of personal, professional, and community hygiene and sanitation is discussed. The methods of transmission of infectious diseases, control procedures of these diseases with special emphasis on protection to the embalmer; differentiating between indigenous microorganisms and pathogens and /or opportunists causing diseases commonly associated with the human host and dead human remains. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 120, and Biology 121, and Health Science 102.
150 minutes per week. 3 credit hours.

## MORTUARY SCIENCE 103 <br> Chemistry for Embalmers

The basic principles of chemistry related to the principles of funeral service education. Especially stressed are the principles and precautions involved in the sanitation and disinfection of dead human remains, focusing strictly on chemistry and embalming chemicals, modifying agents, supplemental fluids and autopsy compounds. Potentially harmful chemicals used in the preparation room and their regulations are emphasized along with the essential characteristics of fermentation, and putrefaction in the area of the chemistry of decomposition of dead human remains. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 120, and Biology 121, and Health Science 102.
150 minutes per week. 3 credit hours.

## MORTUARY SCIENCE 104

## Pathology for Embalmers

Pathological conditions of the human body in its postmortem state and how those pathological conditions affect various parts of the body, with particular emphasis on those conditions which relate to or affect the embalming or restorative art process. Pathological conditions discussed will dictate the embalming procedures, methods, and chemicals for preservation demand required by the embalmer. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 120, and Biology 121, and Health Science 102.
150 minutes per week. 3 credit hours.

## Course Descriptions

## MORTUARY SCIENCE 108

## Accounting in Funeral Service

An introduction to basic principles of accounting theory; applications to funeral home operations, including financial statements and their analysis, worksheets, journalizing, receivables, payables, deferrals and accruals. Inventory cost models for funeral merchandise, is covered along with depreciation models and payroll accounting. Accounting proficiencies will enable understanding of funeral service records and the funeral directors guidelines of funeral arrangements as prescribed by Federal Trade Commission Regulations rule on funeral industry practices. Blackboard Course ( BbOC ) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Acceptance into the Mortuary Science program/plan 257.
150 minutes per week. 3 credit hours.

## MORTUARY SCIENCE 109

Sociology for Funeral Service
Sociology studies family structures, social structures, and the factors of change within those groups. This course relates those factors of change to the impacts of death and the relationship of the role of the funeral director in providing closure through funeral rites, ceremonies, customs, religion and rituals. Emphasis is placed on the cultural requirements and diversities of each family the funeral director is privileged to serve and an awareness of the changing social factors, which affect American Funeral Rites and the families served. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Acceptance into the Mortuary Science program/plan 257.
150 minutes per week. 3 credit hours.

## MORTUARY SCIENCE 111

History of Funeral Service
Survey of current expectations in American Funeral practice with emphasis on task and personality of the practitioner. Trends and issues in embalming practice from ancient Egyptian burial rites to current American practices and foreign procedures. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Acceptance into the Mortuary Science program/ plan 257.
150 minutes per week. 3 credit hours.

## MORTUARY SCIENCE 203

## Funeral Directing

Recognizes the wide variation of funeral customs across the country, and attempts to point out some general practices that contain minimal geographic and cultural differences, including general information on notification of death, transfer of remains, conduct of the arrangement conference, prefunded/preplanned funerals. Included is the cross-section of religious funeral practices, fraternal and military funerals, shipment of remains, cremation and aftercare. Guidelines for the course are designed to introduce the Federal Trade Commission and the Trade Regulation Rule on Funeral Industry Practices. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Mortuary Science 111.
150 minutes per week. 3 credit hours.

## MORTUARY SCIENCE 204

Mortuary And Business Law
Introduction to the sources of law and the legal status of the dead human body. The funeral director's responsibilities are examined as practicing professionals in relationship to that of the final disposition. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of two semesters in the Mortuary Science program/plan 257.
150 minutes per week. 3 credit hours.

## MORTUARY SCIENCE 207

## Restorative Art

Study of techniques employed to bring about restoration of a deceased human being to as near a normal appearance as possible. The subject area for Restorative Art is designed to introduce the techniques and importance of creating an acceptable appearance of the deceased for the benefit of the surviving family members. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 226 recommended. 150 minutes per week. 3 credit hours.

## Course Descriptions

## MORTUARY SCIENCE 209

Funeral Management and Merchandise
Covers the construction of and features of caskets, outer burial containers, and other funeral related products such as cemetery headstones and markers. Merchandising examines methods of purchasing, pricing, display, and sale of funeral merchandise as well as services. Emphasis is placed on the component parts of funeral merchandise, including materials used, component part styles, finishes, dimensions/functions and pricing methods. General management techniques and theory as they relate to specific funeral home operational procedures and practices are emphasized. Management examines specific areas of funeral service practice and the managerial guidelines for the contemporary concepts of funeral service management as they relate to client families and community, staff personnel, and professional associates and associations/agencies. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Mortuary Science 203
150 minutes per week. 3 credit hours.

## MORTUARY SCIENCE 210

Advanced Mortuary Science Practice/Ethics
A survey of topics presented by the Director of the Mortuary Science program/plan 257, providing an overview of various tasks and subjects a director will encounter in the role of a practitioner. Legal and Moral Ethics are covered. An overview of the curriculum and the practical application of theory as it relates to the ethnical practice of mortuary science. Exit Examinations/Core Competency Capstone Course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson. 100 minutes per week. 2 credit hours.

## MORTUARY SCIENCE 211

Psychology of Funeral Service
The underlying value and relevance of this course for preparing the funeral director is that the symbolic and ritualistic aspects of the funeral have a significant impact upon the emotional experience of the bereaved. Emphasis on the grief process and its variations across individuals as influenced by psychological factors aids the funeral director in becoming a facilitating agent for effective mourning through personal interactions as well as the design and implementation of the funeral service. This course will also prepare the funeral director to know when to make a referral for mental health services. Issues relating to children and death and particular theories/theorist are also stressed. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MORTUARY SCIENCE 213

## Embalming Theory I

The involvement of all aspects of embalming theory. From the evaluation of features to the case analysis, embalming reports and instrumentation. A study of phenomenon of death in the human body is detailed. Theory I includes the study of government regulations applicable to the embalming process. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Mortuary Science 102, and Mortuary Science 103, and Mortuary Science 104.
150 minutes per week. 3 credit hours.

## MORTUARY SCIENCE 214

## Embalming Laboratory

Practical application of embalming techniques and laboratory procedures of the deceased human body. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Mortuary Science 102, and Mortuary Science 207, and Mortuary Science 213, and Mortuary Science215, and Mortuary Science216, and Biology 130, and Biology131, and Biology 226, and Biology 227. 1 lecture and 4 lab hours per week. 3 credit hours.

## MORTUARY SCIENCE 215

## Restorative Art Laboratory

Applied experience in restoring damaged human remains to achieve a normal life appearance of the deceased. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Mortuary Science 207, and Biology 226, and Biology 227.
1 lecture and 2 lab hours per week. 2 credit hours.

## MORTUARY SCIENCE 216

## Embalming Theory II

Course examines the difficulties encountered by theembalmer due to disease and pathological changes of the deceased, examination of and preparation of autopsied cases as well as the procedures for handling and embalming more difficult cases. Theory II includes the study of special treatments and techniques for different conditions encountered in the dead human body. Blackboard Course (BbOC) computer skills recommended but not required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Mortuary Science 213, and Biology 130, and Biology 131, and Biology 226, and Biology 227.
150 minutes per week. 3 credit hours.

## Course Descriptions

## [MUSIC] MUSIC (060)

## MUSIC 101

## Fundamentals of Music Theory

Introduction to music theory and application: rhythm, meter, scales, intervals, triads, andmusicalterminology;development of aural and keyboard skills. Writing assignments, as appropriate to the discipline, are part of the course. No credit toward graduation for music majors. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MUSIC 102

Music Theory I
Realization of figured and unfigured bases and harmonization of melodies. Triads and inversions. Harmonic analysis. Keyboard application. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Music 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MUSIC 103

## Music Theory II

Realization of figured and unfigured bass and harmonization of melodies. Chords of the seventh and ninth sequences, diatonic modulation. Harmonic analysis. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Music 102.
150 minutes per week. 3 credit hours.
MUSIC 105
Group Piano I
Class instruction in beginning piano techniques through study in small groups. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 106

Group Piano II
Continuation of Music 105. Minimum of six hours practice per week required for credit. Students majoring in music are required to take two semesters of study with a private instructor following this course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Music 105, or Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 107

Jazz Improvisation Pt I
Fundamentals of improvisation; performing improvised solos, both on standard chord changes and original compositions. Topics covered include: ear training, II-V-I progressions, substitutes of the II-V-I progression, simple blues, bebop scales, intervals and random chord exercises which lead to altered dominants and more contemporary concepts. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Music 101, or Consent of Department Chairperson. (The student should have a basic level of playing ability on a particular instrument. Concurrent enrollment in Music 135 required.)
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 108

Jazz Improvisation Pt II
Further study of improvisation: performing improvised solos on standard chord changes and original compositions. The covered topics include altered dominant seventh chords, the 12 tone row, advanced blues, rhythm changes, turnarounds, learning tunes by ear, and improvising on them, extensions, substitute chords, modal harmony, free improvisation, note positionsandotherscales.Writingassignments, asappropriate to the discipline, are part of the course. Prerequisite: Music 107, or Consent of Department Chairperson. (Concurrent enrollment in Music 135 required.)
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 109 <br> Jazz/Pop Ensemble

Rehearsal and performance of songs from jazz and popular music repertoires. In addition, the course will cover the skills needed as a professional musician. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 111

Aural and Keyboard Skills I
Sight singing, ear training, and rhythmic dictation with keyboard application. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Music 101, or Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 112

Aural and Keyboard Skills II
Continuation of Music 111. Advanced ear training and sight singing, melodic dictation, and more complex harmonic structures. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Music 111, or Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## COURSE DESCRIPTIONS

## MUSIC 113

String Class
Class instruction in fundamentals of violin, viola, violoncello and string bass; principles of bow control and elementary left hand technique. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 114

## Guitar Class

Programmed, audio-visual music course, emphasizes the development of guitar playing skills. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 115

Woodwind Class
Class instruction in woodwind instruments. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 117

Brass Class
Class instruction in brass instruments. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 119

Percussion Class
Class instruction in percussion instruments. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 120

## Introduction to Music Business

Overview of the music business, including recording, publishing, management, marketing, and other related topics. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MUSIC 121

## Introduction to Music

Elements, structure, listening, literature, aesthetic perspective; concert attendance. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## MUSIC 122

Perspectives In Jazz
Introduction to jazz, its historical background and its development in the United States. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## MUSIC 124

## Trends in Modern American Music

Exploration of what has been happening in this century in American music; includes review of social conditions that have nourished these trends and discussion of folk, blues, jazz, country and western, rock, musical theater, and classical music. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## MUSIC 131

Chorus
This course trains students in vocal performance, familiarizes them with choral literature, and provides opportunities for public performances and musical performances for college functions. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 6 credit hours will be counted towards graduation.
1 lecture and .5 or 2 lab hours per week. 1 or 2 credit hours.

## MUSIC 132

## A Cappella Singing

Limited to students with adequate music background and vocal training. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation. Prerequisite: Music 111, or Consent of Department Chairperson.
1 lecture and . 5 lab hours per week. 1 credit hour.
MUSIC 133
Concert Band
Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation. Prerequisite: Consent of Department Chairperson.
1 lecture and . 5 lab hours per week. 1 credit hour.

## COURSE DESCRIPTIONS

## MUSIC 134

Orchestra
Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation. Prerequisite: Consent of Department Chairperson.
1 lecture and . 5 lab hours per week. 1 credit hour.

## MUSIC 135

## Instrumental Ensembles

String quartets, brass ensembles, jazz workshops, stage band. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation. Prerequisite: Consent of Department Chairperson.
1 lecture and . 5 lab hours per week. 1 credit hour.
MUSIC 136
Vocal Ensembles
Madrigal groups, trios, quartets, etc. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation. Prerequisite: Consent of Department Chairperson.
1 lecture and .5 lab hours per week. 1 credit hour.

## MUSIC 147

Music for Classroom Teacher
Required of students in elementary school education. At least one term of class/piano recommended. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## MUSIC 150

Class Voice I
Group instruction in fundamentals of singing, voice production, breathing, diction, vocalizing, and technical exercises; elementary song literature as student progresses. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 151

Class Voice II
Continued development of proper use of the voice; greater attention to literature; songs in English, Italian, German. Writing assignments, as appropriate to the discipline, are part of the course. Juried examination for credit. Prerequisite: Music 150, or Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 180

Applied Music - Elective Level
Individual instruction in applied music to prepare students for Music 181. Includes private lesson (minimum of one hour). Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Students must own (or have access to) the instrument they plan on studying.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 181

## Applied Music/Freshman level I

Individual instruction in applied music. Includes private lesson (minimum of one hour). First of a four-course sequence of private lessons required of students in Associate in Fine Arts music curriculum. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 182

Applied Music/Freshman II
Continuation of the process initiated in Music 181. Individual instruction in applied music. Includes weekly private lessons (minimum one hour). Second of a four-course sequence of private music lessons required of students in Associate in Fine Arts Music curriculum. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Music 181.

1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 183 <br> World Music

A study of representative music of the non-Western world, with an emphasis on its function within the culture of which it is a part. Elements, structure, listening, aesthetic perspectives; concert attendance. Students need no prior formal training or education in music to take this course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, or English 100 with a C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

MUSIC 200
Black Music Workshop
Contributions of African-American musicians to the development of classical music, American style; study of work of contemporary artists, use of Afro-Cuban instruments. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## MUSIC 201

Music Theory III
Written harmonization of melodies with strict style figuration. Eleventh and thirteenth chords, modal and chromatic alterations, chromatic modulation. Harmonic analysis. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Music 103.
150 minutes per week. 3 credit hours.

## MUSIC 202

## Music Theory IV

Extended tonality, chromatic harmonies, contemporary harmonic trends, inharmonic modulation. Harmonic analysis. Keyboard application. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Music 201. 150 minutes per week. 3 credit hours.

## MUSIC 204

Commercial Music Workshop I
Composition, arrangement, and performance of commercial music. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 205

Commercial Music Workshop II
Continuation of Music 204. Extended original composition; use of microphone and recording techniques; their influence upon orchestration. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Music 204. 1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 211

## Aural and Keyboard Skills III

Continuation of Music 112. Further development of aural perception (melodic, rhythmic, and harmonic dictation) and abilities in sight-singing (single melodies and duets). Application of harmonic concepts at the keyboard. This course is the third in a four-semester sequence of courses in which music majors need to enroll each term of the freshman and sophomore year. The course may be offered separately or with one or more topics combined. Aural skills include sequential development of ear training, sight singing, and dictation and may also include computer-assisted instruction and/or other applications. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Music 112.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 212

Aural and Keyboard Skill IV
Continuation of Music 113. Further development of aural perception (melodic, rhythmic, and harmonic dictation) and abilities in sight-singing (single melodies and duets). Application of harmonic concepts at the keyboard. This course is the fourth in a four-semester sequence of courses in which music majors need to enroll each term of the freshman and sophomore year. The course may be offered separately or with one or more topics combined. Aural skills include sequential development of ear training, sight singing, and dictation, and may also include computer-assisted instruction and/or other applications. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Music 113
1 lecture and 2 lab hours per week. 2 credit hours.
MUSIC 221
Music Literature and History
Introduction to the standard concert repertory through intensive guided listening. Representative works by major composers are chosen to illustrate the principal styles, forms and techniques of vocal and instrumental music. Assumes a fundamental knowledge and understanding of the elements of music. Introduction to the standard concert repertory through intensive guided listening. Representative works by major composers are chosen to illustrate the principal styles, forms and techniques of vocal and instrumental music. Assumes a fundamental knowledge and understanding of the elements of music. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson. 50-150 minutes per week. 1-3 credit hours.

MUSIC 223
Music History to 1750
Music from primitive times to 1750 . Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## MUSIC 224

Music History From 1750
Music from 1750 to the present. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Music 223, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

## MUSIC 225

Individual Project
Individual project as determined with the instructor. Students would also be required to complete an internship as chosen through a discussion with the instructor. Eligibility for course repetition for additional credit hours determined by the instructor. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
1 lecture and .5 or 2 lab hours per week.
1 or 2 credit hours.

## MUSIC 281

Applied Music - Sophomore Level I
Individual instruction in applied music. Includes weekly private lesson (minimum of one hour). Third course in a four-course sequence of private music lessons required of students in Associate in Fine Arts music curriculum. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Satisfactory completion of Music 181.
1 lecture and 2 lab hours per week. 2 credit hours.

## MUSIC 282

Applied Music-Sophomore Level II
Individual instruction in applied music. Includes weekly private lesson (minimum of one hour). Last course in a fourcourse sequence of music lessons required of students in Associate in Fine Arts music curriculum. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Satisfactory completion of Music 281.
1 lecture and 2 lab hours per week. 2 credit hours.

## [NET TEC] NETWORKING TECHNOLOGIES (165)

## NETWORKING TECHNOLOGIES 101

Client-Server Database I
The basics Client-Server database commonly used in industry; including basic terminology and concepts, conceptual modeling and Entity Relationship (ER) diagram, normalization, structure query language (SQL), and procedure language (PL/SQL). Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## NETWORKING TECHNOLOGIES 111

Introduction to Computer Electronics
Introduction to concepts and principles used in modern computers and computer circuits; basic computer numbers systems; computer architecture; exposure to computer languages; digital logic. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 116, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## NETWORKING TECHNOLOGIES 119

Introduction to Networking
Covers the basics of networking, from the component hardware to the topology and theoretical foundation of networks. Emphasis will be placed on current networking theoretical models and on supporting and maintaining a network, and various types of networks and various topologies will be covered. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 116, or Consent of Department Chairperson. 2 lecture and 4 lab hours per week. 4 credit hours.

## NETWORKING TECHNOLOGIES 121

## Internetworking I

Introduction to the various communication equipment used in building an effective Internet infrastructure. Provides productspecific installation and configuration. Equipment used includes bridges, routers, gateways, integrated services, digital network (ISDN) modems, digital and channel service units (DSU/CSUs), and ISDN pipeline devices. Writing assignments, as appropriate to the discipline, are part of the course. Lab fee is required. Prerequisite: CIS 101, and CIS 116, or CIS 120, or Placement Test, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## NETWORKING TECHNOLOGIES 122

## Internetworking II

A hands-on introduction to Cisco multi-protocol routers, including basic router operations, architecture, configuration and troubleshooting. Students will set up, wire, and configure various Cisco routers in an intranet work environment. Topics include: Cisco IOS, Telnet, router operating modes, RIP, IGRP, IP, and Apple Talk. Writing assignments, as appropriate to the discipline, are part of the course. Lab fee required. Prerequisite: Networking Technologies 121, or Placement Test, or Consent of Department Chairperson. 2 lecture and 2 lab hours per week. 3 credit hours.

## NETWORKING TECHNOLOGIES 201

Client-Server Database II
Manage a Client-Server database; serve as database management administrator (DBA); learn techniques to create initial database, configuring storage space, add/ delete/modified users, and security issues for a database. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## Course Descriptions

## NETWORKING TECHNOLOGIES 202

## Client-Server Database III

Manage a Client-Server database, serve as database management administrator learns procedures necessary to recover a database failure and ensure network accessibility for a Client-Server database. Student will learn both commandline and GUI interfaces to perform these procedures. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## NETWORKING TECHNOLOGIES 203

## Client-Server Database IV

Tune a Client-Server database - serve as database management administrator (DBA), learn tuning concept, diagnose and prevent lock contention, discuss difference between dedicated and shared servers, prevent performance degradation as well as use tools to diagnose, troubleshoot and optimize database productivity. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 4 lab hours per week. 4 credit hours.

## NETWORKING TECHNOLOGIES 221 <br> Internetworking III

A hands-on experience in implementing and configuring complex Cisco multi-protocol routes and switches, including an introduction to switched Ethernet networks, Virtual LAN technology, spanning - tree protocols and configuration of Cisco switching devices. This class will also include advanced router concepts including access list management, IP and IP filtering, traffic management, and IGRP implementation. Students will demonstrate the use of the CiscolOS to configure network switching and routing devices. Writing assignments, as appropriate to the discipline, are part of the course. Lab fee is required. Prerequisite: Networking Technologies 122 or the equivalent, or Consent of Department Chairperson. 2 lecture and 2 lab hours per week. 3 credit hours.

## NETWORKING TECHNOLOGIES 222

## Internetworking IV

This course is a project in WAN design. An overview of WAN technologies and WAN configurations on a Cisco router, involving the design, implementation, configuration and demonstration of a fully functional enterprise intranet, including HTTP, FTP, NNTP, and e-mail services. Writing assignments, as appropriate to the discipline, are part of the course. Lab fee is required. Prerequisite: Networking Technologies 221 or the equivalent, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## NETWORKING TECHNOLOGIES 240

Computer Network Operating System
Introduction to selected computer network operating systems. Installation, administration, management, optimization, organization, analysis and upgrading of computer network operating systems. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of four variable credits. Consent of Department Chairperson required for repeatability. Prerequisite: CIS 116, or Electronics 250, or Networking Technologies 270.
1-2 lecture and 2-4 lab hours per week. 1-4 credit hours.

## NETWORKING TECHNOLOGIES 260 <br> Microcomputers

Introduction to microcomputer architecture, peripheral, and input/output devices. Testing, troubleshooting, upgrading, and repair of microcomputer systems. Writing assignments, as appropriate to the discipline, are part of the course. Consent of Department Chairperson required for repeatability.
2 lecture and 4 lab hours per week. 4 credit hours.

## NETWORKING TECHNOLOGIES 270

## Local Area Networks

Selection and installation of network hardware and software. Management and maintenance of networks. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of four variable credits. Consent of Department Chairperson required for repeatability. Prerequisite: CIS 116, or Networking Technologies 240.
2 lecture and 4 lab hours per week. 4 credit hours.

## NETWORKING TECHNOLOGIES 299

Special Topics Networking Systems and Technologies
Special topics in Networking Systems and Technology will be discussed along with appropriate lab and/or field trip activities. New developments especially materials useful in K-12 education and industry. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times when topics are different, and may count for a maximum of four variable credits. Consent of Department Chairperson required for repeatability. Prerequisite: Consent of Department Chairperson.
50-200 minutes per week. 1-4 credit hours

## Course Descriptions

## [NURSING] NURSING (063)

## NURSING 101

## Fundamentals of Nursing I

Introduction to the nursing process and practice; impact of illness and hospitalization affecting basic human needs regardless of age, sex or diagnosis; laboratory experience in hospitals and health agencies to acquire skills in application of nursing measures; student to demonstrate preparation for planned learning experience, all clinical laboratories under supervision of professional nurse faculty; clinical laboratory precededandfollowed by groupseminar. Theoretical concepts and clinical nursing skillsareconsistentwiththeskillsstandards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into Nursing program/plan 239. 5.5 lecture and 4.5 lab hours per week. 7 credit hours.

## NURSING 102

Fundamentals of Nursing II
Continuation of Nursing 101. Effects of illness and hospitalization on normal growth and development; laboratory experience to develop increased skills in basic nursing measures of care; all clinical laboratory experience supervised by professional nursing faculty, and preceded and followed by group seminar. Theoretical concepts and clinical nursing skills are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Nursing 101.
5.5 lecture and 4.5 lab hours per week. 7 credit hours.

## NURSING 140

## Nursing Process and Documentation

Introduction to nursing process and documentation. Nursing theories are briefly surveyed. Emphasis is placed on the development of critical thinking skills in the application of nursing process through exercises in care planning and nursing documentation. Students learn and utilize nursing diagnosis (NAN), nursing interventions classification (NIC), critical pathways, and other nursing documentation methods for these exercises. Theoretical concepts and clinical nursing skills are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into Nursing program/plan 239.
150 minutes per week. 3 credit hours.

## NURSING 150

Nursing Fundamentals I
The concepts of holism, nursing practice, multicultural society, and communication are studied for purposes of assisting persons to meet their basic needs. The role of the practical nurse in the use of the nursing process is studied and practiced in classroom, laboratory, and long-term settings specifically in relation to protection against infection and providing for safety, mobility, comfort, hygiene, elimination and nutrition needs. Theoretical concepts and clinical nursing skills are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Practical Nursing program/plan 240. [2 lecture, 1 lab, 3 clinical hours per week $=4$ credit hours]
2 lecture and 4 lab hours per week. 4 credit hours.

## NURSING 151

Nursing Fundamentals II
Administration of medications and use of the nursing process to care for persons having surgery. The nursing process is used to assist persons with oxygen, wound care, fluid and electrolyte, and rest and sleep needs and to assist persons who need relief from pain. Learning in classroom, lab and clinical settings foster professional growth. Theoretical concepts and clinical nursing skills are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Nursing 150. [2 lecture, 1 lab, 3 clinical hours per week = 4 credit hours] 2 lecture and 4 lab hours per week. 4 credit hours.

## NURSING 152

## Nursing Perspectives

Introduction to the philosophy, conceptual framework, outcomes and competencies of the program. Nursing practice, nursing process, and the therapeutic relationship are studied along with the ethical and legal aspects of nursing from the perspective of nursing practice in today's society. Contemporary health care delivery issues are also discussed. Theoretical concepts and clinical nursing skills contained in this course are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Practical Nursing program/plan 240.
100 minutes per week. 2 credit hours.

## Course Descriptions

## NURSING 153

## Nursing Thru Life Span 1

Focus on meeting the basic needs of families; preventive, supportive, and therapeutic care is learned in class, lab and clinical settings. Students are expected to demonstrate professional growth and to function within the provisions of the Illinois Nursing Act of 2007. Theoretical concepts and clinical nursing skills are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Nursing 151, and Nursing 152, and Biology 226. [3 lecture, I lab 3 clinical hours per week $=5$ credit hours]
3 lecture and 4 lab hours per week. 5 credit hours.

## NURSING 154

## Nursing Thru Life Span II

Focus on the care of persons throughout the life span, experiencing grief and death, and the common disorders interfering oxygenation, nutrition, elimination, hormonal balance, and protection from infection. Students integrate previous related learning and are expected to demonstrate professional growth, and to function within the provisions of the Illinois Nursing Act of 2007. Theoretical concepts and clinical nursing skills are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Nursing 153, and Biology 227. [2 lecture, I lab, 5 clinical hours per week $=5$ credit hours]
2 lecture and 6 lab hours per week. 5 credit hours.

## NURSING 155

## Nursing Thru Life Span III

Focus on the care of persons throughout the life span, experiencing the most common disorders interfering with sexuality, mobility, and safety (including mental health disorders.) Cancer is also studied because of its interferences with all basic needs. Students integrate previous related learning and are expected to demonstrate professional growth and to function within the provisions of the Illinois Nursing Act of 2007. Theoretical concepts and clinical nursing contained are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Nursing 154, and Biology 227. [2 lecture, 1 lab, 7 clinical hours per week $=6$ credit hours]
2 lecture and 8 lab hours per week. 6 credit hours.

## NURSING 156

Nursing Fundamentals I Lecture
The concepts of holism, nursing practice, multicultural society, and communication are studied for purposes of assisting persons to meet their basic needs. The role of the practical nurse in the use of the nursing process is studied and practiced in classroom, laboratory, and long term care settings, specifically in relation to protection against infection and providing for safety, mobility, comfort, hygiene, elimination, and nutrition needs. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Nursing 157.
100 minutes per week. 2 credit hours.

## NURSING 157

Nursing Fundamentals I Lab
The concepts of holism, nursing practice, multicultural society, and communication are studied for purposes of assisting persons to meet their basic needs. The role of the practical nurse in the use of the nursing process studied and practiced in classroom, laboratory and long term care settings, specifically in relation to protection against infection and providing for safety, mobility, comfort, hygiene, elimination, and nutrition needs. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Nursing 156.

4 lab hours per week. 2 credit hours.

## NURSING 203

## Nursing in Perspective

Survey of the nursing career; responsibilities and changing role of a registered nurse. Theoretical concepts and clinical nursing skills are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Nursing 210, and Nursing 211.
150 minutes per week. 3 credit hours.

## NURSING 210

Nursing Process and Alterations In Homeostasis I
Care for the family in crisis. Application of concepts of growth and development, health maintenance, and promotion. Emphasis on observational skills, interpersonal relationships, communications, and psychodynamics of human behavior. Theoretical concepts and clinical nursing skills are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Nursing 102, and Biology 226, and Biology 227, and Microbiology 233. 3 lecture and 6 lab hours per week. 6 credit hours.

## Course Descriptions

## NURSING 211

Nursing Process and Alterations in Homeostasis II
Continuation of the nursing process with focus on alteration in health status within the expanding family system. Physical, social, and psychological assessments of patients. Theoretical concepts and clinical nursing skills are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Nursing 102, and Biology 226, and Biology 227, and Microbiology 233. 3 lecture and 6 lab hours per week. 6 credit hours.

## NURSING 212

Nursing Process and Alterations in Homeostasis III
Continuation and implementation of the nursing process in the care of patients within the family unit. Consideration given to various stages of growth and development across the life cycle where patients and family are adapting to stressors. Use of a variety of learning experiences for initiating and implementing change in nursing approaches to client care. Theoretical concepts and clinical nursing skills are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Nursing 210, and Nursing 211.
3 lecture and 6 lab hours per week. 6 credit hours.

## NURSING 213

Nursing Process and Alterations in Homeostasis IV
Terminal integrating experiences utilizing the nursing process to meet the needs of patients and families in complex health care situations. Theoretical concepts and clinical nursing skills are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Nursing 210, and Nursing 211.
3 lecture and 6 lab hours per week. 6 credit hours.

## NURSING 250

Health Assessment
Introduction to health assessment through the application of holistic nursing theory and nursing process to clinical nursing practice. The nursing process and the role of the nurse are examined in relation to the health assessment of individuals across their lifespan. Emphasis is placed on modes of investigation and inquiry in gathering data concerning physiological, psychosocial, cultural, and spiritual aspects of human experiences. Legal and ethical considerations related to the nurse's role in health assessment are explored. Theoretical concepts and clinical nursing skills are consistent with the skills standards developed for the State of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into Nursing program/plan 239, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## NURSING 299

Special Topics Nursing
Special topics in Nursing will be presented along with appropriate lab and/or clinical activities. New developments will be emphasized, related to National League of Nursing Accreditation Commission and changes in Department of Professional Regulations rules, as well as best practices issues. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times when topics are different, and may count for a maximum of eight variable credits. Consent of Department Chairperson required for repeatability. Prerequisite: Admission to the Nursing program/plan 239.
1-4 lecture and 2-8 lab hours per week. 1-8 credit hours.

## [OTA] OCCUPATIONAL THERAPY ASSISTANT (122)

## OCCUPATIONAL THERAPY ASSISTANT 106

Foundations of Human Occupation
Exploration of the meaning of human occupation and its relationships to health, illness, and disability. The historical roots of occupational therapy are explored and linked to the roles of contemporary occupational therapy practitioners. Students will experience a variety of learning strategies and activities as a means to gaining understanding of the occupation, the occupational therapy process, and the skills needed by a healthcare professional. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, and English 101.
2 lecture and 2 lab hours per week. 3 credit hours.

## OCCUPATIONAL THERAPY ASSISTANT 107 Occupations of Childhood

The first in a sequence of courses addressing the emergence of occupational behaviors, skills, and life roles in humans throughout the life span. This course presents occupational and developmental frameworks for understanding the occupational nature of infants and children through 12 years of age, their families, and caregivers. Means of applying the occupational therapy process by the occupational therapy assistant is studied within the contexts of a variety of disorders, conditions, and circumstances affecting this period of human development. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson. 4 lecture and 2 lab hours per week. 5 credit hours.

## Course Descriptions

## OCCUPATIONAL THERAPY ASSISTANT 108

Practice Skills of OT Assistant I
Structured experiential learning will provide opportunities for the student to solidify knowledge, develop and practice professional skills and behaviors utilized in the occupational therapy process with infants, children, through twelve years of age, and their families in a variety of settings. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson. 1 lecture and 2 lab hours per week. 2 credit hours.

## OCCUPATIONAL THERAPY ASSISTANT 109

Occupations of Adolescence Early Adulthood
The second in a sequence of courses addressing emergence of occupational behaviors, skills, and life roles in humans throughout the life span. This course presents theoretical frameworks and models for understanding the occupational nature of adolescents and young adults at home, at school and in the community. Approaches to applying the occupational therapy process by the occupational therapy assistant is studied within the contexts of a variety of disorders, conditions, and circumstances affecting this period of human development. Writing assignments, as appropriate to the discipline, are part of the course.
4 lecture and 2 lab hours per week. 5 credit hours.

## OCCUPATIONAL THERAPY ASSISTANT 110

Practice Skills for OT Assistant II
Structured experiential learning will provide opportunities for the student to solidify knowledge, develop and practice professional skills and behaviors utilized in the occupational therapy process in a variety of settings with adolescents and young adults. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## OCCUPATIONAL THERAPY ASSISTANT 209

Occupation of Middle Adulthood
The third in a sequence of courses addressing the emergence of occupational behaviors, skills, and life roles in humans throughout the life span. Presents theoretical frameworks and models for understanding the occupational nature of the middle adulthood years in home settings, work environments, and in multiple levels of community. Approaches to applying the occupational therapy process by the occupational therapy assistant is studies within the contexts of a variety of disorders, conditions, and circumstances affecting period of human development. Writing assignments, as appropriate to the discipline, are part of the course.
4 lecture and 2 lab hours per week. 5 credit hours.

## OCCUPATIONAL THERAPY ASSISTANT 210

## Practice Skills of OT Assistant III

Structured experiential learning will provide opportunities for the student to solidify knowledge, develop, and practice professional skills and behaviors utilized in the occupational therapy process in a variety of settings with middle-aged adults. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## OCCUPATIONAL THERAPY ASSISTANT 211

## Special Topics for OTA I

The first of a two course sequence designed to develop knowledge and skills needed for the provision of occupational therapy services to special populations. Exploration of the role of the occupational therapy assistant in a variety of service delivery contexts. A variety of strategies used to engage in collaborative occupational therapy supervisory relationships in settings without occupational therapists will be addressed. Writing assignments, as appropriate to the discipline, are part of the course.
1-2 lecture and 2 lab hours per week. 2-3 credit hours.

## OCCUPATIONAL THERAPY ASSISTANT 212

## Occupations of Later Adulthood

The fourth in a sequence of courses addressing the emergence of occupational behaviors, skills, and life roles in humans throughout the life span. Presentation of theoretical frameworks and models for understanding the occupational nature of later adulthood in multiple living settings, workrelated environments, and in the community. Approaches to applying the occupational therapy process by the occupational therapy assistant is studied within the contexts of a variety of disorders, conditions and circumstances occurring during this period of human development. Writing assignments, as appropriate to the discipline, are part of the course.
4 lecture and 2 lab hours per week. 5 credit hours.

## OCCUPATIONAL THERAPY ASSISTANT 213

## Practice Skills for OT Assistant IV

Structured experiential learning will provide opportunities for the student to solidify knowledge, develop, and practice professional skills behaviors utilized in the occupational therapy process in a variety of settings with elders. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## Course Descriptions

## OCCUPATIONAL THERAPY ASSISTANT 214

Special Topics for the OTA II
The second of a two course sequence designed to develop knowledge and skills needed for the provision of occupational therapy services to special populations. Exploration of the role of the occupational therapy assistant in a variety of service delivery contexts. A variety of strategies used to engage in collaborative occupational therapy supervisory relationships in settings without occupational therapists will be addressed. A special populations independent study incorporating fundamentals of Entrepreneurship and marketing is included. Writing assignments, as appropriate to the discipline, are part of the course.
1-2 lecture and 2 lab hours per week. 2-3 credit hours.

## OCCUPATIONAL THERAPY ASSISTANT 215

## Fieldwork Level II

Students will apply and synthesize the knowledge base skills and attitudes of an occupational therapy assistant in a supervised health care fieldwork experience. Fieldwork pla cements in a community settings or institutions will afford students' opportunities to engage in occupation-based practice with individuals across the lifespan and who may experience a variety of disorders and conditions. The course includes a campus-based student seminar to support the process of professional acquisition. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
2 lecture and 20 lab hours per week. 6 credit hours.

## OCCUPATIONAL THERAPY ASSISTANT 216 Fieldwork Level B

Students will apply and synthesize the knowledge base, skills and attitudes of an occupational therapy assistant in a supervised health care fieldwork experience. Fieldwork placements in community settings or institutions provides opportunities to engage in occupation-based practice with individuals across the lifespan and who may experience a variety of disorders and conditions. Includes a campusbased student seminar to support the process of professional acquisition. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
2 lecture and 20 lab hours per week. 6 credit hours.
[OCEAN]
OCEANOGRAPHY (070)

## OCEANOGRAPHY 101

Introduction to Oceanography
Third dimension of the ocean, its depth, and as a new frontier awaiting exploration; interdisciplinary study of ocean and interphase between air and water and how it affects the physical environment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [OPH TC]

OPHTHALMIC TECHNOLOGY
OPHTHALMIC TECHNOLOGY 112
Anatomy and Physiology of the Eye
Structure and function in the human visual systems are covered. Anatomy and physiology of the eyeball, orbit and ocular adnexae, related to pharmacology and pathology are explored in detail. Laboratory and literature assignments, as appropriate to the visual pathway are part of the course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a C or better, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## OPHTHALMIC TECHNOLOGY 114 Ophthalmic Optics

Basic optical principles of lenses and the human eye from both theoretical and practical standpoints are discussed. The course involves study of the physical properties of light and how refractive materials relate to the human visual system in the ophthalmic profession. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## OPHTHALMIC TECHNOLOGY 120

## Ophthalmic Pre-Testing

This course prepares students to perform duties of a technical nature relating to the assisting of a licensed practitioner in a dependent clinical relationship. These duties include case history, visual acuity measurement, pupilary evaluation, color vision testing, depth perception, and blood pressure measurement. The care, calibration and maintenance of the instrumentation used to perform the appropriate testing are included in the course. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in OPH TC 112, and OPH TC 114, or Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

# Course Descriptions 

## OPHTHALMIC TECHNOLOGY 125

## Retinoscopy and Refractometry

Prinicples and techniques of refractometry and retinoscopy with emphasis on skill development using schematic eye are covered. Students will be presented with theoretical principles behind and ophthalmic correction, as well as have the opportunity to learn various techniques of retinoscopy and refractometry, with both manual and automated equipment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in OPH TC 120, or Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## OPHTHALMIC TECHNOLOGY 130

## Ophthalmic Dispensing

An introduction to the basic principles of frame selection, materials, parts, adjustment, repair, and facial measurement appropriate to the dispensing of single vision and multifocal eyewear. This course also assists the student in the alignment of frames for dispensing, as well as spectacle lens insertion and removal. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in OPH TC 112, and OPH 114, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## OPHTHALMIC TECHNOLOGY 141

## Ophthalmic Office Procedures

This course introduces students to their personal and vocational responsibilities as an ophthalmic technician. Office procedures as applied to ophthalmic, including telephone etiquettes, appointment systems, bookkeeping, payroll record, third-party billing and authorization, recalls, computers, and other business management methods. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## OPHTHALMIC TECHNOLOGY 150

## Ocular Pharmacology

Actionsanduses ofdiagnosticandtherapeuticpharmaceutical agents, and their function based on interference with normal ocular physiology will be covered. The principles of drop delivery techniques and the effect of the delivery system, as well as allergic reactions are also discussed. The actions, indications and side effects of common drugs will be included. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
100 minutes per week. 2 credit hours.


#### Abstract

OPHTHALMIC TECHNOLOGY 160 First Aid, Emergency Care, CPR This course trains responders to act appropriately in emergency situations and to recognize and care for lifethreatening respiratory or cardiac emergencies. Lecture and demonstration on first-aid protocol to address wounds, hemorrhage, burns, exposures, sprains, dislocations, fractures, unconscious conditions, suffocation, drowning, and poisoning are covered. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson. 1 lecture and 4 lab hours per week. 3 credit hours.


## OPHTHALMIC TECHNOLOGY 221

## Ophthalmic Ancillary Testing

Principles and techniques of specialty visual system examinations are presented. The visual pathway, common causes of visual field loss and related subjects will be covered with emphasis on visual field testing, scanning laser polarimetry, optical coherence tomography, and other technology based testing procedures. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in OPH TC 120.
1 lecture and 2 lab hours per week. 2 credit hours.

## OPHTHALMIC TECHNOLOGY 223

## Advanced Ophthalmic Assisting

Principles and techniques of keratometry, pachmetry, exophthalmometry, applanation tonometry, ultrasound, advanced ocular motility, minor surgical procedures, and scribing are covered with an emphasis on skill development in these areas. This course prepares the technician to assist the doctor in advanced office techniques. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## OPHTHALMIC TECHNOLOGY 230

Clinical Practicum I
Assigned clinical experience is designed to provide detailed education and training, while applying the technical skills acquired in previous course work. The student is expected to achieve specific educational objectives determined for this experience. Recording of clinical data, patient handling, optical dispensing, and preliminary examination techniques are stressed. Clinical conferences are included. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in OPH TC 112, and OPH TC 120, and OPH TC 130, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## Course Descriptions

## OPHTHALMIC TECHNOLOGY 235 <br> Contact Lenses

This course provides an introduction to contact lens theory, and practice, related to contact lens types, materials, patient care instructions, insertion and removal techniques, and fitting parameters. Procedures for ordering, verifying and modifying contact lenses are also included, with an emphasis on patient instruction, education and advancements in contact lens technology. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in OPH TC 112, and OPH TC 114, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## OPHTHALMIC TECHNOLOGY 240

## Integrated Science for Ophthalmic Technicians

Students are exposed to pathology of the eye and related structures, integrated with the symptomology and treatment of these conditions. Systemic conditions with ocular manifestations are also presented. Basic clinical microbiology and practical microbiology as they relate to the diagnosis, treatment and management of ophthalmic diseases are also included. Medical/Insurance Coding Procedures and Insurance in ophthalmology are introduced. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in OPH TC 112, and OPH TC 130, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## OPHTHALMIC TECHNOLOGY 242 <br> Clinical Practicum II

This course provides for the use of skills acquired in secondary course work to perform contact lens instruction, minor surgery assistance, refractometry, retinoscopy, advanced motility testing, scanning laser polarimetry, optical coherence tomography and advanced visual field testing. Clinical conferences are scheduled. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in OPH TC 141, and OPH TC 230.
9 lab hours per week. 3 credit hours.

## OPHTHALMIC TECHNOLOGY 243

Advanced Ophthalmic Procedures
The technician is taught to assist in the management of preoperative and post-operative patients, with a review of the related pharmaceuticals, or advanced ophthalmic procedures are included, such as laser assistance, ultrasound, potential acuity meter, and endothelial cell counts. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in OPH TC 223. 150 minutes per week. 3 credit hours.

## OPHTHALMIC TECHNOLOGY 244

Advanced Ophthalmic Technique
Principles andtechniques ofadvanced ophthalmic procedures such as fundus photography, fluorescein angiography, ophthalmometry, and care of the refractive surgery patients including advanced refractometry and retinoscopy are discussed. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in OPH TC 112, or Consent of Department Chairperson. 2 lecture and 2 lab hours per week. 3 credit hours.

## OPHTHALMIC TECHNOLOGY 260

Introduction to Surgical Technology
Technology principles and procedure used in set up and preoperative care of the patients, assisting the surgeon during the procedure, monitoring patients during the surgery, and assisting the patients through the recovery and postoperative period. Pharmaceuticals as appropriate to this discipline are reviewed. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
50 minutes per week. 1 credit hour.

## OPHTHALMIC TECHNOLOGY 290

## Electronic Medical Record

Electronic business management and electronic medical record systems are introduced. The ethical implications and responsibilities of technicians in relation to record keeping are review in detail. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisites: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## COURSE DESCRIPTIONS

## [PHARM] PHARMACOLOGY (028)

## PHARMACOLOGY 103

## Pharmacology for Nurses

Weights and measures in pharmacy, drug standards and techniques, and skills for safe and accurate preparation of oral and hypodermic doses of drugs. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## PHARMACOLOGY 104

## Pharma-Codynamics and Nursing Care

An introduction to pharmacodynamics through the application of holistic nursing theory and nursing process to clinical nursing practice. General principles of drug action are discussed as they relate to the nursing care of patients of all age groups. The uses and modes of action for various classifications of medications will be presented. Principles from the basic sciences to include a holistic nursing perspective will be reinforced. Emphasis is placed on the nursing role in medication administration and evaluation of patient response to medications. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 226, and Biology 227, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [PHAR TC] PHARMACY TECHNOLOGY (062)

## PHARMACY TECHNOLOGY 101

Pharmacology for Allied Health Personnel
Principles and characteristics of drugs, including physical and chemical properties, dosage calculations, effects and reactions, toxicity, emergency procedures, and methods of administration. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into Pharmacy Technology program/plan 254.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHARMACY TECHNOLOGY 102

## Basic Science for Allied Health Personnel

Fundamental biological and biochemical principles as applied to allied health personnel. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Pharmacy Technology program/plan 254.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHARMACY TECHNOLOGY 103

Introduction to Pharmacy Technology
Introduction to the field of pharmacy technology. Included is an overview of the Pharmacy Technician certificate program/ plan 254, definition of the pharmacy technician's role, and a review of opportunities open to the pharmacy technician. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Pharmacy Technology program/plan 254.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHARMACY TECHNOLOGY 104

## Pharmaceutical Calculations

Designed to provide mathematical tools for students enrolled in the pharmacy technology program. Emphasis is on practical aspects of mathematics and less upon the theoretical. Topics include, but are not limited to fundamentals of measurement and calculation; interpretation of prescription or medication order; the metric system; calculation of doses; reducing and enlarging formulas; and percentage and ratio calculation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Pharmacy Technology program/plan 254, and Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHARMACY TECHNOLOGY 113

## Prescription Processing

Provides basic understanding of the person/pharmacy computer prescription processing software and the development of keyboarding skills, and the production of all requisite documentation for the pharmacy. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission the Pharmacy Technology program/plan 254.
100 minutes per week. 2 credit hours.

## PHARMACY TECHNOLOGY 121

Pharmacy Communication
Provides basic communication skills and pharmacy practice, including verbal, and nonverbal communication. Communication barriers, listening/empathic responding, assertiveness, interviewing assessment, patient outcomes, communications with special patients/children about medications are explored. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## Course Descriptions

## PHARMACY TECHNOLOGY 201

Introduction to Pharmacy Law
Overview of legal aspects of the pharmacy practice, including the review of the Federal Controlled Substances Act and Illinois statues, rules and regulations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Pharmacy Technology program/plan 254.
50 minutes per week. 1 credit hour.

## PHARMACY TECHNOLOGY 202

## Pharmacy Operations

Fundamentals and specifics of drug distribution in hospital and retail pharmacies, including bulk compounding, packaging, quality control, inventory control, drug storage, and a variety of drug delivery systems. Mathematical calculations for basic pharmacy operations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission to the Pharmacy Technology program/plan 254.
3 lecture and 2 lab hours per week. 4 credit hours.

## PHARMACY TECHNOLOGY 204

## Clinical Practicum I

Provide employment skills as a concurrent and integral part of a student's educational program in pharmacy technology. Supervised work experience in ambulatory care pharmacy practice is provided by applying the knowledge and training learned in related pharmacy technology courses. Training also involves progression from role of observer to assistant, then to relative independence under the direct supervision of a registered pharmacist and clinical coordinator. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Pharmacy Technology 103, and Pharmacology 103.
2 lecture and 10 lab hours per week. 4 credit hours.

## PHARMACY TECHNOLOGY 205

## Clinical Practicum II

Provide employment skills as a concurrent and integral part of a student's educational program in pharmacy technology. Supervised work experience in ambulatory care pharmacy practice is provided by applying the knowledge and training learned in related pharmacy technology courses. Training also involves progression from role of observer to assistant, then to relative independence under the direct supervision of a registered pharmacist and clinical coordinator. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Pharmacy Technology 101, and Pharmacy Technology 102, and Pharmacy Technology 201, and Pharmacy Technology 202, and Pharmacology 103. 2 lecture and 10 lab hours per week. 4 credit hours.

## [PTKAPPA] PHI THETA KAPPA (131)

## PHI THETA KAPPA 101

## Phi Theta Kappa Leadership Development

Development of leadership abilities through the classic examples in The Great Books and through experiential exercises. Includes topics on leadership and group dynamics, moral and ethical responsibilities of leadership, delegation of authority. Conflict resolution, essential leadership skills, and productive leadership behavior. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## [PHIL] PHILOSOPHY (043)

## PHILOSOPHY 105

## Logic

Introduction to methods of reasoning, inference, and argument. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHILOSOPHY 106

Introduction to Philosophy
Introduction to philosophical methods of inquiry through analysis and evaluation of influential philosophical ideas. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHILOSOPHY 107

## Ethics

Introduction to representative ethical systems; approaches to problems of values and conduct. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHILOSOPHY 108

Philosophy of Religion
Introduction to major religious traditions, analyzing various conceptions of God, values, reason, and faith. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## PHILOSOPHY 110

Social and Political Philosophy
Discussion of readings in philosophy, covering issues such as justice, authority, obligation, rights, power, freedom, and well-being. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHILOSOPHY 151

## Bioethics

This course will prepare students to develop and apply explicit, coherent reasoning and judgment to important issues in the ethics of healthcare such as but not limited to the implications of modern biotechnology and medicine, genetic therapy, cloning and stem cell research and embryonic stem cell research, organ transplantation, abortion, euthanasia, human and animal research, the new reproductive technologies, the allocation of health resources and addressing the philosophical issues of human personhood, life, death and suffering. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHILOSOPHY 201

Greek Philosophy to the Renaissance
Introduction to philosophical problems encountered in science, ethics, politics, and art. Readings from Plato, Aristotle, St. Augustine, St. Thomas, St. Bonaventure, and other Renaissance thinkers. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHILOSOPHY 202

## Enlightenment to Present

Continuation of Philosophy 201; covers the periods from the 17th Century to the present. Readings from Descartes, Spinoza, Locke, Hume, Kant, Russell, and Sartre. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## PHILOSOPHY 215

## Problems In Philosophy

Philosophical problems from such fields as ethics, metaphysics, aesthetics, and philosophy of science. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## PHILOSOPHY 216

## Critical Thinking

Introduction to the development of cognitive skills to evaluate claims and arguments in order to make sound judgments about beliefs and actions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHILOSOPHY 225

Philosophy of Art
Basic artistic concepts, including artistic creation and the aesthetic experiences; focus on values and meaning in the arts. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [PHLEB] PHLEBOTOMY (113)

## PHLEBOTOMY 109

Phlebotomy Practicum and Seminar I
Provides principles of phlebotomy techniques and examines the phlebotomist role as a member of the healthcare delivery team. Students will perform simulated phlebotomy procedures on campus and actual procedures in a clinical setting. Medical terminology, anatomy and physiology, communications, interpersonal relations, professional behavior, safety requirements in the healthcare institution, venipuncture and capillary puncture techniques will be discussed. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 9 lab hours per week. 5 credit hours.

## Course Descriptions

## PHLEBOTOMY 209

## Phlebotomy Practicum and Seminar II

Provides with 200 hours of hands-on experience in both intravenous and capillary blood drawing in a clinical setting, plus 40 lectures on campus in phlebotomy related theory. Topics such as stress management, legal aspects, quality control and quality assurance, data entry and basic computer skills, and cardio-pulmonary resuscitation (CPR), continuation of medical terminology will be discussed. Writing assignments, as appropriate to the discipline, are part of the course.
3 lecture and 15 lab hours per week. 6 credit hours.

## [PHYS ED] PHYSICAL EDUCATION (065)

## PHYSICAL EDUCATION 110

## Fitness

Concepts, techniques, methods of personal fitness, stressing effects of exercise, relaxation, and weight control; fitness programs directed to individual improvement. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 112

## Gymnastics and Tumbling

General calisthenics and fundamentals of combinations of simple tumbling, gymnastics, stunts and/or modern gymnastics and practice; competitive aspects and scoring. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 114

## Jogging

Running techniques to improve organic fitness through individualized programs. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 116

Self Defense and Combatives
Elements of self-defense; understanding of combatives; conditioning, offensive and defensive tactics, rules and strategy for competition. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 118 <br> Weight Training

Development of physical fitness through weight training devices; lifting techniques, circuit training, competitive lifting procedures. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 120

## Team Sports

Combination of one or more seasonal sports such as basketball, hockey, soccer, softball, touch football, and volleyball; theory and practice of fundamental skills, rules of the game, and strategy; competition and tournaments within classes. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 122

Individual Sports
One or more lifetime sports such as archery, badminton, bowling, fencing, golf, skating, skiing, tennis, and track and field; theory and practice of individual skills, rules of the game, techniques of game strategy; competitive tournaments within class. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 130

Fundamentals of Swimming
For beginning and intermediate swimmers; breathing techniques, basic strokes, diving and water safety skills. American Red Cross card issued to qualifiers. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## COURSE DESCRIPTIONS

## PHYSICAL EDUCATION 132

Advanced Swim and Water Games
Instruction in all strokes to improve efficiency and speed; diving from pool side, springboard, rescue skills and surface dives; preparation for lifesaving course; individual and team competition in such games as water basketball and water polo. American Red Cross Card issued to qualifiers. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 134

Aquatic Skills and Synchronized Swimming
Development of skills for participation in synchronized swimming activities; stunts and combinations of strokes for simple rhythmic routine composition; advanced diving and underwater skills. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 140

## Dance Survey

Introduction to dance techniques such as square, folk, tap, contemporary, social, and ballet. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 142

## Square and Folk Dance

Fundamentals and practice in basic steps and figures of American and foreign folk dance. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 144

## Ethnic Dance

Rhythms, dance, and cultures of Africa and their interrelationships with Latin American dance and calypso movements. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 146

## Contemporary Dance I

Contemporary dance including warm-ups, technique, dance patterns, analysis of rhythm, and creative experience in improvisations and simple movement studies. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 148

Contemporary Dance II
Advanced technique, training, and principles of movement perception; introduction to fundamentals of dance composition with emphasis on design, form and production. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 150

## Ballet

Form, style, and performance of basic ballet movements and practice of beginning dances; fundamentals of music related to dance. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 152 <br> Tap

Techniques of tap dance; practice and experience in creating simple routines. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## PHYSICAL EDUCATION 160 <br> Adaptive Physical Education

For students restricted by health limitations; activity programs to meet specific needs of the individual. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 4 credit hours will be counted towards graduation.
.5-1 lecture and 1-2 lab hours per week.
1-2 credit hours.

## COURSE DESCRIPTIONS

## PHYSICAL EDUCATION 200

Introduction to Physical Education
History and objectives of physical education; opportunities in physical education, health and recreation; off-campus observations. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## PHYSICAL EDUCATION 201

## Dance Fundamentals

Rhythm as related to movement and dance; skill practice with emphasis on correct performance, interpretation of dance patterns, and opportunities for student teaching. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## PHYSICAL EDUCATION 202

## Ballet

Principles of classical ballet, terminology, and methods of teaching elementary composition. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 1 lab hours per week. 1 credit hour.

## PHYSICAL EDUCATION 203

## Contemporary and Modern Jazz Dance

Analysis through movement, exploration of dance forms, and their similarities and differences; skill practice and teaching experience in each area. Writing assignments, as appropriate to the discipline, are part of the course.
. 5 lecture and 1 lab hours per week. 1 credit hour.

## PHYSICAL EDUCATION 204

## Wrestling

Analysis, instruction and theories of coaching, officiating and match strategy. Writing assignments, as appropriate to the discipline, are part of the course.
. 5 lecture and 1 lab hours per week. 1 credit hour.

## PHYSICAL EDUCATION 206

## Football

Analysis, instruction, demonstration of fundamental skills; theory of coaching and officiating, styles of play, and team strategy. Writing assignments, as appropriate to the discipline, are part of the course.
.5 lecture and 1 lab hours per week. 1 credit hour.

## PHYSICAL EDUCATION 207

Introduction to Personal Training
This course is designed to prepare students to sit for the personal trainer's exam. The course bridges the gap between exercise science related course work and the practical application skills of personal training. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test or English 100 with a C or better or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## PHYSICAL EDUCATION 212

## Volleyball

Instruction, demonstration, and practice of skills; coaching and officiating, styles of play, and team strategy. Writing assignments, as appropriate to the discipline, are part of the course.
. 5 lecture and 1 lab hours per week. 1 credit hour.

## PHYSICAL EDUCATION 216

Track
Skills and teaching techniques of track and field events; rules of competition, strategy, and team organization of the sport. Writing assignments, as appropriate to the discipline, are part of the course.
.5 lecture and 1 lab hours per week. 1 credit hour.

## PHYSICAL EDUCATION 218

## Basketball

Fundamentals of basketball and techniques of team organization; skills of each position, offensive and defensive skills, team play, strategy and officiating. Writing assignments, as appropriate to the discipline, are part of the course.
. 5 lecture and 1 lab hours per week. 1 credit hour.

## PHYSICAL EDUCATION 219

## Sports Officiating

Rules and mechanics of officiating of various team and individual sports; responsibilities and qualifications of an official. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## PHYSICAL EDUCATION 221

Play and Rhythmic Activities of Early Childhood
Methods and materials for teaching simple rhythmic games, singing games, and other movement experiences for preschool children; analysis of play situations appropriate to their needs and abilities. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## COURSE DESCRIPTIONS

PHYSICAL EDUCATION 224

## Tumbling and Gymnastics

Instruction and practice in teaching fundamental exercises; correct execution, development of skills, methods of giving gymnastic commands, tumbling and pyramid building; instruction and theories of coaching, officiating and competitive needs. Writing assignments, as appropriate to the discipline, are part of the course.

## 1 lecture and 2 lab hours per week. 2 credit hours.

## PHYSICAL EDUCATION 226

## Swimming and Senior Life Saving

Skills of fundamental strokes to improve efficiency and speed; diving from pool side and springboard, rescue skills and surface dives; introduction to coaching of competitive swimming; safety, accident prevention, defense methods, and rescue techniques. American Red Cross card issued to qualifiers. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## PHYSICAL EDUCATION 229

## Water Safety Instructor

Swimming skills and techniques in all strokes, skills, and techniques of life saving and, water safety; practice in class management and teaching progressions; requirements meet those of American Red Cross Water Safety Instructors' training program; American Red Cross Water Safety Instructors certificate issued to qualifiers. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## PHYSICAL EDUCATION 230

## Baseball and Softball

Basic skills, coaching, and officiating styles of play, teaching techniques, and team strategy. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## PHYSICAL EDUCATION 234

## Soccer

History, basic skills, playing tactics, officiating, and teaching methods. Writing assignments, as appropriate to the discipline, are part of the course.
.5 lecture and 1 lab hours per week. 1 credit hour.

## PHYSICAL EDUCATION 236

## Fitness Programs

Individual physical development; methods and teaching techniques of various fitness programs; introduction to physiology of exercise. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## PHYSICAL EDUCATION 237

## Body Mechanics

Principles of fitness, including exercise, nutrition, diet, selfanalysis, relaxation, posture, movement, and sport activity analysis. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## PHYSICAL EDUCATION 244

## Tennis

Basic skills, strategy, and playing techniques, and teaching methods, rules, history, and court etiquette. Writing assignments, as appropriate to the discipline, are part of the course.
.5 lecture and 1 lab hours per week. 1 credit hour.

## PHYSICAL EDUCATION 246 <br> Golf

Basic practices and teaching of grip, stance, and swing; rules, strategy, course layout, and etiquette. Writing assignments, as appropriate to the discipline, are part of the course.
.5 lecture and 1 lab hours per week. 1 credit hour.

## [PHY SCI] PHYSICAL SCIENCE (076)

## PHYSICAL SCIENCE 101

## General Course

Introduction to the scientific method, astronomy, geology, meteorology. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHYSICAL SCIENCE 102

General Course
Introduction to physics and chemistry; the relationship of matter and energy to physical and chemical changes. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

## PHYSICAL SCIENCE 107

Current Public Issues in Physical Science
Interdisciplinary approach to physical sciences; current public issues serve as framework for course that covers earth sciences (conservation, pollution, space exploration) as well as other branches of science and social humanistic aspects; integrates significant aspects of physical science with daily living. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHYSICAL SCIENCE 111

General Course I (with lab)
Introduction to scientific phenomena and practices relevant to geosciences, environmental studies, astronomy, and meteorology. Writing assignments, as appropriate to the discipline, are. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## PHYSICAL SCIENCE 112

## General Course II (with lab)

Introduction to scientific phenomena and practices relevant to chemistry and physics, with an emphasis on the structure of matter and energy transformations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## PHYSICAL SCIENCE 118

## Introduction to Meteorology

An introductory course examining the physical properties of the atmosphere, radiation heating and cooling, precipitation, clouds, weather disturbances, climate controls, map reading, and application of the scientific method in analyses of the weather elements. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of English 101.
3 lecture and 2 lab hours per week. 4 credit hours.

## PHYSICAL SCIENCE 201

Fundamentals of Vector GIS
Fundamentals and application of vector GIS, using Arc-GIS. Focus on modeling and analyzing spatial problems in many economic sectors and environmental fields in which spatial data can be represented by points, lines, and planes. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in English 101, and completion of Math 099, or equivalent Placement Test, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHYSICAL SCIENCE 202

Raster GIS and Remote Sensing
Fundamentals and application of raster GIS, using Arc-GIS. Focus on modeling and analyzing spatial problems in many economic sectors and environmental fields in which spatial data can be represented by arrangements of pixels in a matrix such as digital elevation models and imagery. Writing, assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in English 101, and completion of Math 099, or equivalent Placement Test, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHYSICAL SCIENCE 203

## Meteorology for Educators

This course is designed to provide educators with a fundamental understanding of the atmosphere, its structure and its behavior. Weather, climate, the composition of the atmosphere and pollution will be explored and mapped to Illinois State Learning Goals for meteorology. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in English 102, and Eligibility for Math 140, and Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHYSICAL SCIENCE 299

## Special Topics Physical Science

Special topics in Physical Science will be discussed along with appropriate computer and laboratory activities. Emphasis on New developments, especially materials useful in K-12 education and industry. Each special topic course will have a sub-title. Students can take courses with different sub-titles and get credit for each. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times when topics are different, and may count for a maximum of six variable credits. Consent of Department Chairperson required for repeatability. Prerequisite: Placement Test, or English 100 with a grade of C or better, and Consent of Department Chairperson. 50-300 minutes per week. 1-6 credit hour.

## Course Descriptions

## [PHY AST] PHYSICIAN’S ASSISTANT (129)

## PHYSICIAN'S ASSISTANT 101

## Applied Clinical Skills I

Basic skills applicable to the clinical environment, including interpretation and theory of body fluids and tissues, and their implications in arriving at preliminary diagnosis. Topics include clinical biochemistry, hematology, and urinalysis. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physician Assistant 110 with a grade of C or better, and Admission into the Physician Assistant program/plan 262.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHYSICIAN'S ASSISTANT 102

## Medical Sciences I

Systematic approach to theory of clinical medicine, including pathophysiology of human disease. Epidemiology, dermatology, otolaryngology, ophthalmology, and cardiovascular medicine for pediatric, adult, and geriatric patients. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physician Assistant 110 with a grade of $C$ or better, and Admission into the Physician Assistant program/plan 262.
3 lecture and 2 lab hours per week. 4 credit hours.

## PHYSICIAN'S ASSISTANT 103

History and Physical Assessment I
Clinical data gathering skills, and introduction to physical examination using the problem-oriented medical record and patient simulation. Normal history, physical and neurological exam and progressive case presentations which correlate with the pathophysiology of disease systems covered in PhysicianAssistant 102. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: A grade of $C$ or better in Physician Assistant 100, and Physician Assistant 110, and Admission into the Physician Assistant program/plan 262.
2 lecture and 2 lab hours per week. 3 credit hours.

## PHYSICIAN'S ASSISTANT 104

## Applied Clinical Skills II

Review of topographical anatomy, radiographic anatomy, concepts of electrocardiography, and cardiopulmonary resuscitation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
1 lecture and 2 lab hours per week. 2 credit hours.

## PHYSICIAN'S ASSISTANT 105

## Medical Sciences II

Systematic approach to theory of clinical medicine, including the pathophysiology of human disease. Rheumatology, endocrinology, pulmonary and renal medicine, psychiatry and neurology, hematology, oncology, and infectious diseases for pediatric, adult and geriatric patients. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physician Assistant 102, and Admission into the Physician Assistant program/plan 262. 3 lecture and 2 lab hours per week. 4 credit hours.

## PHYSICIAN'S ASSISTANT 106

History and Physical Assessment II
Normal history, physical and neurological exam and progressive case studies correlating with the clinical symptoms covered in Physician Assistant 105 includes obstetrical and gynecological exam, using patient simulations, patient models, and physical assessment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262, and Physician Assistant 103 course, and Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## PHYSICIAN'S ASSISTANT 107

## Medical Pharmacology I

Basic principles of pharmacology, including pharmacokinetics, drug action, interaction, and toxicity. Physiological and biochemical actions, absorptions distribution, metabolism. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
1 lecture and 2 lab hours per week. 2 credit hours.

## PHYSICIAN'S ASSISTANT 109

## Medical Sciences III

Continuation of systematic approach to the theory of clinical medicine. Basic concepts and procedures of surgery, preoperative and postoperative conditions, including orientation in anesthesiology, radiology emergency triage, and care. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physician Assistant 105 course with a grade of C or better, and Admission into the Physician Assistant program/plan 262.
2 lecture and 2 lab hours per week. 3 credit hours.

## Course Descriptions

## PHYSICIAN'S ASSISTANT 110

## Gross Anatomy for Physician Assistants

A first year course in gross anatomy for physician assistants covering identification and description of major organ systems relevant to the practicing clinician in primary care. Includes laboratory (cadaver) experience and pathophysiology. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
2 lecture and 2 lab hours per week. 3 credit hours.

## PHYSICIAN'S ASSISTANT 111

## Professional Development for Physician Assistants

A first year course for Physician Assistant that reviews the history and provides an overview of core competencies focus on political issues, ethical issues, cross-cultural perspectives, and current trends of the Physical Assistant profession in the health care industry. Writing assignments, as appropriate to the discipline, are part of the course. (15 hours of lecture and presentations will be provided.)
50 minutes per week. 1 credit hour.

## PHYSICIAN'S ASSISTANT 112

Pathophysiology 1 for Physician Assistants
A first year course in pathophysiology for physician assistant covering an introduction to clinical medicine. An orientation to disease as altered health physiology. The understanding of the mechanisms underlying disease and to facilitate the basic disease entities will be presented. Analyzing the mechanisms that cause the production of the symptoms and signs of different disease syndromes will be discussed over two semesters. The first_semester covers: Introduction, genetic disease, and disorders of the Immune System, Infectious Disease, and Disease of the Skin. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
100 minutes per week. 2 credit hours.

## PHYSICIAN'S ASSISTANT 113

Pathophysiology II For Physician Assists
A first year course in pathophysiology for physician assistant covering an introduction to clinical medicine. An orientation to disease as altered health physiology. The understanding of the mechanisms underlying disease and to facilitate the basic disease entities will be presented. The analyzing the mechanism of production of the symptoms and signs of different disease syndromes are presented by organ systems through two semesters. The second semester covers: Disorders of the Cardiovascular disease, Respiratory Function, Renal Function and Fluid and Electrolytes, the Nervous system, Neoplasia and Blood Disorders, Gastrointestinal disease and Liver disease, Disorders of the exocrine pancreas, disorders of the parathyroid and calcium metabolism, disorders of endocrine pancreas, disorders of the hypothalamus and pituitary gland, Thyroid disease, disorders of the adrenal cortex, disorders of the female Reproductive tract, disorders of the male reproductive tract. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physician Assistant 112 course, and Admission into the Physician Assistant program/ plan 262.
100 minutes per week. 2 credit hours.

## PHYSICIAN'S ASSISTANT 114

## Medical Pharmacology II

Students are introduced to the basic principles of pharmacology, including pharmacokinetics, drug actions, drug interaction, and drug toxicities involved in the clinical use of drugs. Emphasis will be placed on the physiological and biochemical actions, absorption, distribution, metabolism, excretions and therapeutic use of drugs in the following areas: oral hypoglycemic/insulin, thyroid agents, steroids, hormones, analgesics, antipyretics, gastrointestinal medications, anticonvulsant, psychotropic medications, antineoplastics, and over the counter medications. Counter medications. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
1 lecture and 2 lab hours per week. 2 credit hours.

## PHYSICIAN'S ASSISTANT 201

## Internal Medicine

Students on site in the Department of Medicine will, under supervision, be assigned to patients for medical history, physical examinations, diagnostic testing, and patient management within the limitations imposed by their education and experience. They also will attend daily rounds and special conferences, participating, where possible, in diagnosis and formulation of therapeutic plans. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
2 lecture and 5 lab hours per week. 3 credit hours.

## Course Descriptions

## PHYSICIAN'S ASSISTANT 202

## Emergency Medicine

Students on site in the Department of Medicine will, under supervision, participate in the assessment, diagnosis, and treatment of diseases and disorders in Internal Medicine. Students will rotate through Intensive Care Unit, Coronary Care Unit, and Emergency Room. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
2 lecture and 5 lab hours per week. 3 credit hours.

## PHYSICIAN'S ASSISTANT 203

## General Surgery

Students on site in the Department of Surgery will be assigned patients for medical history review, physical examination, diagnostic testing, and within limits imposed by education and previous experiences, patient management, including supportive involvement in major and minor surgical procedures. They will attend daily rounds and special conferences, participating, when possible, in preoperative confirmation of clinical impression and preparation of patient surgical procedures, as well as in post-surgical care. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
2 lecture and 5 lab hours per week. 3 credit hours.

## PHYSICIAN'S ASSISTANT 204

## Trauma Surgery

Students on site in the Department of Surgery, under supervision, will be assigned patients for medical history review, physical examination, diagnostic testing, and within limits imposed by education and previous experience, patient management, including supportive involvement in major and minor surgical procedures. They will attend daily rounds and special conferences, participating, when possible, in preoperative confirmation of clinical impression and preparation of patient surgical procedures, as well as post-surgical care. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
2 lecture and 5 lab hours per week. 3 credit hours.

## PHYSICIAN'S ASSISTANT 205 <br> Pediatrics

Students on site in the Department of Pediatrics will, under supervision, participate in patient care activities in outpatient clinics, emergency room, and pediatric inpatient services. They will be assigned patients for medical history review, physical examinations, and diagnostic testing in preparation for supportive roles, in the patient's management. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
2 lecture and 5 lab hours per week. 3 credit hours.

## PHYSICIAN'S ASSISTANT 206

Obstetrics and Gynecology
Students on site in the Department of Obstetrics and Gynecology will, under supervision, participate in patient care activities with emphasis during this rotation on patients who have reproductive tract abnormalities and to those involved with normal or complicated pregnancies. Students will be assigned patients for medical history review, physical examination and diagnostic testing in preparation for a supportive role during labor and delivery or gynecologic surgery. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
2 lecture and 5 lab hours per week. 3 credit hours.

## PHYSICIAN'S ASSISTANT 207

## Family Practice

Students on site in the Department of Family Practice will, under supervision, be assigned patients for medical history review, physical examinations, diagnostic testing, and within limitations imposed by education and experience, patient management. They will also attend daily rounds and special conferences, participating in the diagnosis and formulation of therapeutic plans. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262. 2 lecture and 5 lab hours per week. 3 credit hours.

## PHYSICIAN'S ASSISTANT 208

Psychiatry and Mental Health
Students on site in Department of Psychiatry and Mental Health will, under supervision, be assigned patients for medical history, physical examinations, diagnostic testing and patient management, performance of psychiatric history and mental status examination, and participation in and understanding of basics of therapeutics in the Mental Health Education Log. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
2 lecture and 5 lab hours per week. 3 credit hours.

## Course Descriptions

## PHYSICIAN'S ASSISTANT 209

## Geriatric Medicine

Students on site with a combination of patient care in Geriatric Medicine and Long term care, under the supervision of a physician, will be assigned to patients for medical history, physical examinations, diagnostic testing, medical procedure, and patient management within the limitations imposed by their education and experience. Students will attend and participate in daily medical rounds and education conferences. Students will participate, where possible, in the diagnostic and formulation of medical plans and interventions. Students are expected to be familiar with diagnostic interviews, therapeutic communications, and an interdisciplinary approach to patient healthcare management. Patient and family education, critical thinking, evidence based writing assignments, and intense self-directed study, as appropriate to the discipline, are part of the course. Weekly contact with program through the Clinical Coordinator is also required. Course requires a minimum of 40 clinical rotation hours per week for 4 weeks including on call, weekend, and swing shift medical coverage. Two of the weeks will be spent at the campus doing a clinical lab for developing teaching skills with focus on geriatric issues. Prerequisite: Admission into the Physician Assistant program/plan 262.
2 lecture and 5 lab hours per week. 3 credit hours.

## PHYSICIAN'S ASSISTANT 210

## Orthopedics

Students on site in the Department of Surgery will, under the supervision of a physician, be assigned to patients for medical history, physical examinations, diagnostic testing, medical procedure, and patient management within the limitations imposed by their education and experience. Students will attend and participate in daily medical rounds and special education conferences. Students will participate, where possible, in the diagnosis and formulation of medical plans and interventions. Students are expected to be familiar with preoperative clinical assessments, patient preparation for surgical procedures, post-operative patient management, diagnostic work-up, and an interdisciplinary approach to patient healthcare management. Patient and family education, critical thinking, evidence based writing assignments, and intense self-directed study, as appropriate to the discipline, are part of this course. Weekly contact with the program through the Clinical Coordinator is also required. Requires a minimum of 40 clinical rotation hours per week for 4 weeks, including on call, weekend, and swing shift medical coverage. After eight weeks, students return to the campus for didactic seminars and board reviews. Prerequisite: Admission into the Physician Assistant program/plan 262.
2 lecture and 5 lab hours per week. 3 credit hours.

## PHYSICIAN'S ASSISTANT 211

## Elective Clinical Rotation

Student will select an area of medical interest for their elective rotation. Focus on Primary Care is encouraged. Elective rotations site will follow established departmental guidelines plus any additional restrictions mandated by the rotation site. Established general guidelines for our students are that they are under physician supervision, that they be assigned to patients for medical history, physical examinations, diagnostic testing, medical procedures, and patient management within the limitations imposed by their education and experience. Students will attend and participate in daily medical rounds and special medical education conferences. Students will participate, where possible, in the diagnosis and formulation of medical plans and interventions. Students are expected to be familiar with an interdisciplinary approach to patient healthcare management. Patient and family education, critical thinking, evidence based writing assignments, and intense self-directed study, as appropriate to this medical discipline, are part of this course. Additional student guidelines will be addressed, defined, and agreed to by the Clinical Rotation site, the Student, and the Physician Assistant program/plan 262 prior to the beginning of the clinical clerkship. Weekly contact with the program the through the Clinical Coordinator is also required. Course requires a minimum of 40 Clinical Rotations per week for 4 weeks including on call, weekend, and swing shift medical coverage. This course is taken near the end of the program/plan 262. Prerequisite: Admission into the Physician Assistant program/plan 262.
2 lecture and 5 lab hours per week. 3 credit hours.

## PHYSICIAN'S ASSISTANT 213

Special Topics in Health Care
Seminars, discussions, board reviews, and peer mentoring group sessions that focus on Special Topics in Health Care. The primary areas of study include topics related to but not limited to Internal Medicine, Primary Care, and issues on the PA professions. Students are required to take a minimum of 1 credit hour per semester. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
50-200 minutes per week. 1-4 credit hours.

## COURSE DESCRIPTIONS

PHYSICIAN'S ASSISTANT 214
Independent Study
Course is designed to increase the student's level of medical knowledge on a specific topic and to serve as in introduction for advanced medical research for future projects. Elements of medical research will be discussed to enhance the student's critical thinking skills. Students will be required to select a specific topic related to medical issues in an underserved population or community. Students are required to perform independent research skills and interpret their own findings, as well as the supporting evidence found in current medical literature. Findings will be written and orally presented by the student at the end of the second academic year. (Students sign up each semester for one credit hour.) Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Physician Assistant program/plan 262.
50-150 minutes per week. 1-3 credit hours.

## PHYSICIAN'S ASSISTANT 215

## Nutritional Concepts

Concepts of applied anatomy, physiology, and chemistry in human metabolism and nutrition; planning, and selecting and preparing diets for specific diseases or combination of disorders requiring modified diets. Included is eternal parental nutrition support. Relates pathophysiology of the cardiovascular, renal, digestive, endocrine systems, and metabolic imbalances to the application of therapy. Skills and techniques for modifying diets for individuals including counseling are emphasized relative to diseases and symptom, and relative to promotion. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## [PHYSICS] PHYSICS (077)

## PHYSICS 102

## Alternating Current

Principles of electromotive force, current and power in AC circuits, vector solution of AC circuits, series and parallel resonance, measurements, transformer, and impedance matching. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physics 132, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## PHYSICS 131

## Mechanics and Power

Limited number of principles is covered with stress placed on applications. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## PHYSICS 132

Electricity Heat and Light
Continuation of Physics 131. Writing assignments, as appropriatetothediscipline, arepartofthecourse.Prerequisite: Physics 131, or Consent of Department Chairperson. 2 lecture and 2 lab hours per week. 3 credit hours.

## PHYSICS 215

Statics
Rigidbodies, fluidstatics, friction, momentsofinertia, centroids, and virtual work. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physics 235, and Mathematics 208, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHYSICS 216

## Dynamics

Problems in kinematics, dynamics of a particle and a system of particles, dynamics of a rigid body, work, energy, small oscillations, and general plane motion. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physics 235, and Mathematics 208, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHYSICS 217

## Mechanics of Materials

Study of elastic and inelastic relationships of external forces acting on deformable bodies. Includes stresses and deformations produced by tension and compression, torsion and bending, combined stresses, buckling, repeated loads, impact, and influence of properties of materials. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physics 215, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PHYSICS 220

Physics Calculations and Practice
Detailed practice in problems and application of theory for betterunderstanding of physics; application of ideas of physics such as conservation laws, wave motion, invariance and trigonometry, analytic geometry, vector analysis, probability, and statistics. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physics 221, or Physics 231, or Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## COURSE DESCRIPTIONS

## PHYSICS 221

Mechanics and Heat
Foundations and concepts in physics, including elementary problems in mechanics and heat; Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 118 or above with a grade of $C$ or better, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHYSICS 222

Electricity Sound and Light
Continuation of Physics 221. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physics 231, or Physics 235, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHYSICS 224

Physics Calculations and Practice
Detailed practice in problems and applications of theory involving calculus to provide better understanding of physics. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physics 235, or Consent of Department Chairperson.
1 lecture and 2 lab hours per week. 2 credit hours.

## PHYSICS 231

## General Physics I: Mechanics and Wave Motion

Statics and dynamics of a particle and a rigid body; oscillatory and wave motion with application to sound. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Mathematics 141, and Physics 220, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHYSICS 232

General Physics II: Electricity and Magnetism
Electrostatics, magneto statics, laws of DC and AC electromagnetic radiations, and elementary electronics. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physics 231, or Physics 235, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHYSICS 233

General Physics III: Heat, Light and Modern Physics
Introductory thermodynamics, geometrical and physical optics, atomic and nuclear radiations, and associated elementary quantum aspects. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physics 231, or Physics 232, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHYSICS 235

Engineering Physics I: Mechanics and Wave Motion Similar to Physics 231; emphasizes methods of analysis practical and theoretical problems in mechanics and wave motion, involving use of elementary calculus. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Credit or concurrent enrollment in Math 207, and Physics 224, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHYSICS 236

Engineering Physics II: Electricity and Magnetism
Similar to Physics 232; emphasizes problem solving involving the use of calculus. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Physics 235, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHYSICS 237

Engineering Physics III: Heat, Light and Modern Physics Similar to Physics 233; emphasizes practical and theoretical problemsinvolving the use of calculus. Writing assignments, as appropriatetothediscipline, arepartofthecourse.Prerequisite: Physics 235, or Consent Department Chairperson. 2 lecture and 4 lab hours per week. 4 credit hours.

## PHYSICS 238

Physics I for Educators-Mechanics \& Heat
This course is designed to provide educators with a fundamental understanding of force, motion and heat from both a qualitative and quantitative perspective. Newtonian mechanics, gravity, and thermodynamics will be explored and mapped to Illinois State Learning Goals for physics. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in English 102, and Math 141, or high school Trigonometry with Math 140, and Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## PHYSICS 239

Physics II for Educators Electricity, Sound \& Light
This course is designed to provide educators with a fundamental understanding of waves and electromagnetism from both a qualitative and quantitative perspective. Electromagnetism, sound, light, and selected modern physics topics will be explored and mapped to Illinois State Learning Goals for physics. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Physics 238, and Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

## COURSE DESCRIPTIONS

## [POLISH] POLISH (046)

POLISH 101
First Course
Pronunciation and basic structures, speech patterns, reading, and writing skills. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## POLISH 102

## Second Course

Continuation of Polish 101. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Polish 101.
200 minutes per week. 4 credit hours.

POLISH 103
Third Course
Review and development of basic language skills, conducted in Polish. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Polish 102.
200 minutes per week. 4 credit hours.

## POLISH 104

## Fourth Course

Review of language structure and interpretation of readings, conducted in Polish. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Polish 103.
200 minutes per week. 4 credit hours.

## POLISH 206

Intensive Oral Practice/Polish
Practice in spoken language, fluency, and accuracy. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Polish 104.
200 minutes per week. 4 credit hours.

## POLISH 210

## Modern Civilization and Culture/Polish

Recent social, cultural, and historical trends, conducted in Polish and English. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## POLISH 213

## Introduction to Modern Literature/Polish

Selections from contemporary writings, conducted in Polish. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Polish 104. 150 minutes per week. 3 credit hours.

## POLISH 214

Readings in Literature Polish
Works from selected historical periods, conducted in Polish. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Polish 104. 150 minutes per week. 3 credit hours.

## POLISH 221

## Cultural Background of Poland

Conducted in English. The course is planned to present an overall picture of the historical and cultural development of the Polish nation from its beginning to the present. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## [POL SCI] POLITICAL SCIENCE (086)

## POLITICAL SCIENCE 200

Principles of Political Science
Basic principles of political science. History, theories, and various traditional and modern approaches to the study of political institutions and ideas. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## POLITICAL SCIENCE 201 <br> The National Government

Development, organization, and functioning of the American national government; origin, growth, and interpretation of the Constitution; legislative, executive, and judicial processes; administrative development, controls, organization and activities. Successful completion of this course may be used to fulfill the graduation requirement to pass the United States Constitution examination. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Science 101, or Social Science 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## POLITICAL SCIENCE 202

Urban Government and Politics
Development, forms, functions, powers, and problems of urban government in the United States. Emphasis on metropolitan areas, such as Chicago, and intergovernmental relations; examination of local politics and pressure group activity, administrative organization, and fiscal responsibilities. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Science 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

## POLITICAL SCIENCE 203

## Comparative Government

Principles of comparative study of political systems; political culture, governmental structures and institutions, political parties, groups and ideology; understanding of political systems other than American. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Science 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## POLITICAL SCIENCE 204

## International Relations

Study of international relations, analysis of international behavior; role of nation-state and international organizations; factors underlying and the development, character, and application of foreign policy; war and peace; major social and political forces at work in the contemporary world system. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Science 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## POLITICAL SCIENCE 205

Public Administration
Introduction to principles of public administration, including the role of administration in modern government and administrative responsibility; organization, personnel management, fiscal operations, budgeting, purchasing, and planning. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Political Science 201, or Social Science 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## POLITICAL SCIENCE 206

American Foreign Policy
Examination of conduct and control of American foreign policy in today's complex world; analysis of development of American traditions in foreign policy, machinery which exists for conduct of American foreign relations, factors influencing foreign policy of the United States, and policies and problems relating to other countries and regions of the world. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Political Science 201, or Social Science 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## POLITICAL SCIENCE 207

## United States and Local Government

Study of state and local political jurisdictions and systems, including their powers, organization, functions, development and contemporary problems. This course will examine the American federal system with special focus directed to the governmental structures and public policies of Illinois. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Political Science 201, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## POLITICAL SCIENCE 211

## Analysis of White Racism

Nature of white racism: political, economic, social, psychological effects on Blacks and Whites. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## POLITICAL SCIENCE 213

## Labor and Law in the United States

Legal foundations of unionism and statutes, such as the conspiracy acts. Federal Anti-Injunction Act; study of National Labor Relations Act and landmark court decisions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Political Science 201, or Social Science 102, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## POLITICAL SCIENCE 215

Politics of Community Organization
Analysis of voting trends; discussion with community spokesmen and politicians; class participation in community politics such as registration and political education; how Chicago is governed; role of Republican and Democratic parties and independents. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

# Course Descriptions 

## [340PRTE] PROCESS TECHNOLOGY

## 340PRTE 115

## Introduction to Process Technology

Introduction to the field of process industry operations and a review of the roles and responsibilities of process technicians, the environment in which they work, and the equipment and systems that they operate. Introduction to many process industry equipment concepts, including purpose, components, operation, and the Process Technician's role toward the equipment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 101, and Eligibility for Mathematics 140, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## 340PRTE 116

## Process Instrumentation I

Introduction to the field of instrumentation as it relates to equipment used in the process industry. The study of instruments and instrumentsystems used in the petrochemical process industry, including terminology, process variables, symbology, control loops, and basic troubleshooting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Eligibility for English 101, and Eligibility for Math 140, or Consent of Department Chairperson.
3 lecture and 2 lab hours per week. 4 credit hours.

## 340PRTE 117

## Process Instrumentation II

This course is to provide an overview into the field of instrumentation as it relates to operations within the process industry. Within this course, students will use existing knowledge of equipment, systems, and instrumentation to understand the operation of an entire unit. Concepts related to commissioning, normal startup, normal operations, normal shutdown, turnarounds, and abnormal situations, as well as the Process Technician's role in performing the task associated with these concepts within an operating unit. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: 340PRTE 116 with a grade of C or better.
3 lecture and 2 lab hours per week. 4 credit hours.

## 340PRTE 118

## Process Technology Equipment

An overview and introduction into some of the equipment and vessels, and their operations, within the Process Industry. Introduction to process industry equipment fundamentals, such as purpose, terminology, components, operation, and Process Technician's role for operating and troubleshooting the equipment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: 340PRTE 116 with a grade of C or better.
3 lecture and 2 lab hours per week. 4 credit hours.

## 340PRTE 119

Safety, Health and Environment
Introduction to various types of plant hazards, safety and environmental systems and equipment, and regulations under which the process industry is governed. Designed to impart the knowledge and skills that dictate the attitudes and behaviors required for safe and environmentally sound work habits. Emphasis is on safety, health, and environmental issues in the performance of all job tasks and regulatory compliance issues. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: 340PRTE 115 with a grade of C or better.
3 lecture and 2 lab hours per week. 4 credit hours.

## 340PRTE 202 <br> Quality Control

Introduces many process industry-related quality concepts, including operating consistency, continuous improvement, plant economics, team skills, and statistical process control (SPC). Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: 340PRTE 118 with a grade of $C$ or better.
150 minutes per week. 3 credit hours.

## 340PRTE 203

## Unit Systems

Introduces the concept of system and plant economics; studies the interrelation of process systems by arranging process equipment into basic systems; explains how factors affecting process systems are controlled under normal conditions; and recognizes abnormal process conditions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: 340PRTE 119 with a grade of C or better.
3 lecture and 2 lab hours per week. 4 credit hours.

## 340PRTE 204

## Operations

Introduction to the various types of plant hazards, safety, and environmental systems and equipment, and regulations under which the industry is governed. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: 340PRTE 203 with a grade of C or better. 3 lecture and 2 lab hours per week. 4 credit hours.

## 340PRTE 205

Process Troubleshooting
The application of process control with the use of computersimulated exercises. The use of process control simulations challenges the student to exercise logical troubleshooting techniques to solve operational problems. Utilization of "what if drills" to enhance troubleshooting skills. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: 340PRTE 203 with a grade of C or better.
3 lecture and 2 lab hours per week. 4 credit hours.

## Course Descriptions


#### Abstract

340PRTE 206 Process Technology Internship Participation in occupational area of study work experience under supervision of both college and employer. Internship objectives developed by student and faculty adviser, with approval of employer, to provide appropriate work-based learning experience. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: 340PRTE 203 with a grade of $C$ or better. 3 lecture and 2 lab hours per week. 4 credit hours.


## [PS REHB] PSYCHIATRIC REHABILITATION (134)

## PSYCHIATRIC REHABILITATION 101

Survey of Psychiatric Rehabilitation
This course is the first in the series for the Psychiatric Rehabilitation Certificate. The survey course has four major themes: Understanding psychiatric disability and current approaches to treatment; the mental health system and surrounding issues; psychiatric rehabilitation through vocational and skills training; family and community support systems. The orientation of the course is more practical than theoretical, and there is considerable opportunity to observe and practice relevant skill. Consumers serve as guest speakers to highlight issues of empowerment and to increase understanding of consumer experiences with the mental health community. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## PSYCHIATRIC REHABILITATION 102 <br> Psychiatric Rehabilitation Skills

This course is the second in the series for the Psychiatric Rehabilitation Certificate. The orientation of the course is more practical than theoretical, and there is considerable opportunity to observe and practice relevant skills. Focus on basic techniques for conducting interviews for use in assessment, treatment planning, and therapeutic interactions with consumers, conducting skills training groups applying behavioral techniques for implementing programs that promote desired skills, for intervening in crisis situations and preventing and managing aggression. Writing assignments, as appropriate to the discipline, are part of the course. Course may be repeated up to three times and may count for a maximum of six credit hours. Consent of Department Chairperson required for repeatability. Consent of Department Chairperson required for repeatability. Prerequisite: Grade of C or better in Psychiatric Rehabilitation 101.
150 minutes per week. 3 credit hours.

## PSYCHIATRIC REHABILITATION 103

Health Skills Psychiatric Rehab
Examines three-dimensions of wellness: physical, emotional, and environmental. Focus on the fundamentals of physical wellness, including diet, nutrition, exercise, sanitation, disease prevention and control, and special health considerations for persons with serve mental illness. The emotional dimension of wellness includes social support, physical and sensory accommodations, and geriatric and developmental disabilities, and the essentials of environmental safety, including use of safety equipment and proper mechanics. Students will develop and practice skill for determining vital signs and documenting their observations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Psychiatric Rehabilitation 101 and Psychiatric Rehabilitation 102.
150 minutes per week. 3 credit hours.

## PSYCHIATRIC REHABILITATION 104

Vocational \& Community Living Skills
Emphasizes on the practical applications of vocational and community living skills development for individuals with serve mental illness. Observation and of practice with the fundamentals of vocational rehabilitation, including the duties and tasks commonly required in vocational settings and the development of employment sites, including the practical application of current policies affecting employment sites, networking skills, common state and federal benefit programs and community-based service provision. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Psychiatric Rehabilitation 101.
150 minutes per week. 3 credit hours.

## PSYCHIATRIC REHABILITATION 105

Internship/Survey Psychiatric Rehabilitation \& Skills
This internship requires a minimum of 76 clock hours of field experience. Experiences are a combination of observation and participation/interaction with consumers of mental health services. The first half (or a minimum of 38 hours) will include five of the following areas: 1) inpatient milieu and general activities; 2) case management activities; 3) vocational training activities; 4) skills training activities; and 5) consumer led activities. The second half of the internship (a minimum of 38 hours) includes interviewing skills and leading skills training groups, and at least one of the following: behavior definition and task analysis, aggression management, assessment and treatment and planning, or crisis intervention. All experiences should focus on a rehabilitative approach to serving individuals with serve mental illness. Group or individual supervision with on-site clinical staff and/or supervision by the field placement director are also required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Successful completion of Psychiatric Rehabilitation 101 and Psychiatric Rehabilitation 102.
5 lab hours per week. 1 credit hour.

## COURSE DESCRIPTIONS


#### Abstract

PSYCHIATRIC REHABILITATION 106 Internship/Health Skills and Vocational Community Living This internship requires a minimum of 76 clock field experience by the student. Experiences are a combination of observation participation interaction with consumers of mental health services. The first half (or a minimum of 38 hours) will include eight activities in the following areas: physical wellness, emotional and social wellness, environmental wellness, and documentation. The second half will include two areas: vocational rehabilitation and case management. All experiences should focus on a rehabilitative approach to serving individuals with severe mental illness. Group or individual supervision with on-site clinical staff and/or supervision by the field placement director are also required. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Successful completion of Psychiatric Rehabilitation 103 and Psychiatric Rehabilitation 104.

5 lab hours per week. 1 credit hour.


## [PSYCH] PSYCHOLOGY (087)

## PSYCHOLOGY 201

General Psychology
Historical survey of psychology and a study of the sensory and perceptual processes: learning, thinking, remembering, emotional behavior, motivation, mechanism of adjustment, and the total personality. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Social Science 101, or English 101, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## PSYCHOLOGY 203

## The Psychology of Women

An application of the general principals of psychological scholarship and research to the subject of gender and women. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Psychology 201, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PSYCHOLOGY 205

Applied Psychology
Applications of principles of psychology in industry, business, the professions, social welfare, and personal adjustment; career selection, industrial efficiency, advertising, sales, the arts; detection and treatment of delinquents and criminals. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Social Science 101, or English 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PSYCHOLOGY 206

Business and Industrial Psychology
Psychological principles and techniques applied to activities and problems in business and industry; selling, advertising, market research, personnel work, employee selection and training, supervision, and morale. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Psychology 201, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PSYCHOLOGY 207

## Child Psychology

Development, adjustment, and psychological problems from birth of the child through adolescence; relationship of scientific psychological findings to practical methods of child guidance and training by parents, teachers, and others. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Psychology 201, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PSYCHOLOGY 208

Psychology of Exceptional Children
Considers children who do not respond to usual classroom teaching procedures. Includes problems of identification, diagnosis and potential assessment; surveys appropriate instruction and remedial teaching of mentally retarded, physically handicapped, gifted, culturally deprived and maladjusted children. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Psychology 207, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## PSYCHOLOGY 209

## Black Psychology

Relationship of psychology to colonized situation; understanding Colonial experience in psychological terms, emphasis on effects for Black and White persons in America of the status of Blacks during and after legalized slavery. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PSYCHOLOGY 210

Principles of Supervisory Psychology
Psychological principles applied to problems with employees, both from the standpoint of management and of employees. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

## PSYCHOLOGY 211

## Social Psychology

Analyzes development of personality structures and patterns; cultural environment, social roles and status, attitude formation, personality types and measurement of personality. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Psychology 201, or Sociology 201, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PSYCHOLOGY 213

## Abnormal Psychology

Abnormal behavior and its social significance; symptoms and dynamics of psychological disorders; neuroses and psychosomatic reactions, sociopathic psychoses; consideration of therapies and theories of prevention. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Psychology 201, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PSYCHOLOGY 214

## Adolescent Psychology

Continuation of Psychology 207. Physical, intellectual, educational, personality, and social development of adolescents in contemporary society; emphasis on problems of the adolescents' adjustment to personal and social environment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PSYCHOLOGY 215

## Psychology of Personality

Major personality theories and systems concerned with comprehensively and dynamically interrelating developmental, motivational, and adaptive aspects of behavior; methods of personality assessment and experimental evidence relevant to the theories. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Psychology 201, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PSYCHOLOGY 217

## Brain, Mind and Behavior

Study of behavior from the biological point of view, analyzing behavior in physiological, genetic, developmental and evolutionary terms, emphasizing the interaction of the brain, behavior, and environment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PSYCHOLOGY 222

## Adult Development and Aging

Introduction to psychological problems, issues, facts, and theories relating to later adulthood and old age; societal values and institutions, socio-economic variables, biological and psychological changes, perception, cognition, psychosocial development, personality factors, sexuality and relationships, work and skill issues, adjustment and coping, psychopathology, and therapeutic intervention. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PSYCHOLOGY 223

## Death, Dying and Bereavement

Introduction to psychological problems, issues, facts, theories, opinions, and controversies pertaining to death or loss, the dying process, and bereavement as a response to loss. Focus on societal values, institutions, psychological variables, the nature of dying and bereavement, the effects of loss on the surviving individual, adjustment and problems, relevant behavioral and emotional reactions, and alternatives to societal institutions surrounding death. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PSYCHOLOGY 224

Life Span Developmental Psychology
Introduction to developmental psychology, covering fundamental biological, cognitive, and psychological factors as they apply to the whole span of development, including theories, research design and findings, facts, and principles, as they apply to each age level. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Psychology 201, or Consent of Department Chairperson
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## [PUB SRV] PUBLIC SERVICE (069)

## PUBLIC SERVICE 130

## Police Operations I

Orientation; police administration and organization; rules and regulations; policy and procedures. Writing assignments, as appropriate to the discipline, are part of the course.
50 minutes per week. 1 credit hour.

## PUBLIC SERVICE 131

## Communication and Case Reporting

Fundamentals of note taking, directives, traffic reports, and interviews. Emphasis will include composition of police narrative, writing primarily in terms of the organization and language of such reports commonly used by law enforcement officers. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, and Public Service 130, or Consent of Department Chairperson. 100 minutes per week. 2 credit hours.

## PUBLIC SERVICE 132

## Law and Court Procedures

Principles of constitutional law, arrest, ethics, search and seizure; review of court systems, procedures from initial incident to final court disposition. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Public Service 130, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## PUBLIC SERVICE 133

Law Codes I
Analysis of state and municipal codes as they apply to law enforcement. Emphasis on structure, essential elements, and most frequently used sections. Review of day to day duties of a law enforcement officer. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Public Service 130, and Public Service 131, and Public Service 132, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## PUBLIC SERVICE 134

Criminal Investigation I
Fundamentals of investigation, identification and arrest, collection of evidence; modus operandi. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Public Service 130, and Public Service 131, and Public Service 132, or Consent of Department Chairperson. 200 minutes per week. 4 credit hours.

## PUBLIC SERVICE 135

Problems in Human Behavior
Study of normal and deviant behavior, collective behavior, and narcotics offenses. Study of interpersonal relations from the perspective of working and serving the public from various background and cultures. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Public Service 130, and Public Service 132, or Consent of Department Chairperson.
100 minutes per week. 2 credit hours.

## PUBLIC SERVICE 136

## Professional Skills for Police Officers

Field training and techniques used in conducting criminal investigations, or in another appropriate area of law enforcement approved by the instructor. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Public Service 130, and Public Service 131, and Public Service 132, and Public Service 133, or Consent of Department Chairperson.
100 minutes per week. 2 credit hours.

## PUBLIC SERVICE 230

## Police Operations II

Review of police line operations, including patrol, traffic, and special operational units; operations for civil disorders and disasters. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Public Service 130, and Public Service 131, and Public Service 132, and Public Service 133, or Consent of Department Chairperson. 100 minutes per week. 2 credit hours.

## [RADIOGR] RADIOGRAPHY (021)

## RADIOGRAPHY 101

Introduction to Radiation Sciences
Fundamental concepts of medical imaging and the radiation sciences; includes origins of the profession, common terminology and chemicals; technical factors influencing development of the radiograph and technical factors which produce the image. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.
1 lecture and 2 lab hours per week. 2 credit hours.

## RADIOGRAPHY 102

## Attitudes In Patient Care

Skills needed for proper patient care; includes physical and psychological skills to cope with various situations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.
100 minutes per week. 2 credit hours.

## COURSE DESCRIPTIONS

## RADIOGRAPHY 105

## Imaging Physics

Structure of matter, electric circuitry, especially the x-ray circuit, interactions between ionizing radiation and matter and principles necessary for production of radiographic image. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246, and Radiography 101 course.
2 lecture and 2 lab hours per week. 3 credit hours.

## RADIOGRAPHY 115

Basic Principles of Image Production
Analysis of various technical factors and accessories which affect radiographic image; includes basic qualitative factors of image production and laboratory experiments. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246, and Radiography 101 course..
2 lecture and 2 lab hours per week. 3 credit hours.

## RADIOGRAPHY 124

## Introduction to Patient Care

Proper positioning and basic nursing procedures necessary for patient care; includes proper placement and manipulation of patient and equipment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.
1 lecture and 2 lab hours per week. 2 credit hours.

## RADIOGRAPHY 128

## Image Evaluation

Analysis of image and quality of radiographs images submitted for interpretation; covers the patient's size, cooperation and pathological condition relative to and influencing accuracy and quality of resultant image. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.
50 minutes per week. 1 credit hour.

## RADIOGRAPHY 131

## Radiographic Procedures I

Proper positioning of patient for demonstration of suspect pathology of abdomen and its contents, correlated with course in anatomy and physiology, and routine and contrast media procedures. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.
1 lecture and 2 lab hours per week. 2 credit hours.

## RADIOGRAPHY 140

Introduction to Clinical Education
Physical and technical skills needed to apply ionizing radiation to human beings; clinical orientation and evaluation to determine professional preparedness. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.

1 lecture and 30 lab hours per week. 4 credit hours.

## RADIOGRAPHY 141

## Radiography Clinical Education I

Orientation and initial skills development in basic radiographic procedures; visualization of abdomen and its contents stressed to prepare for further study in major area of specialization; includes communication, operation of equipment, patient care, and technical skills development. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.
1 lecture and 30 lab hours per week. 4 credit hours.

## RADIOGRAPHY 200

## Pathology

Covers disease process with radiographic manifestations; laboratory sessions include use of radiographs and images from other modalities to visualize various types of pathologic conditions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246. 2 lecture and 2 lab hours per week. 3 credit hours.

## RADIOGRAPHY 202

## Radiology Management

Administration, purchasing, and personnel control; practical experience in department administration. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Advanced standing in the Radiography program/plan 246.
50 minutes per week. 1 credit hour.

## RADIOGRAPHY 205

## Applied Radiographic Techniques

Practical applications of previously learned concepts; effects of technical factor selection, use of accessories and changes in patient type and condition. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Advanced standing in the Radiography program/plan 246.
2 lecture and 2 lab hours per week. 3 credit hours.

## Course Descriptions

## RADIOGRAPHY 206

## Imaging

The components of radiological imaging system chains. Exploration of systems, including current systems and new and emerging modalities. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.
1 lecture and 2 lab hours per week. 2 credit hours.

## RADIOGRAPHY 208

Radiobiology
Effects of radiation on cells, organs, and organisms and implications on present and future populations, use of ionizing radiation in internal and external treatment of benign and malignant disease. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.
2 lecture and 2 lab hours per week. 3 credit hours.

## RADIOGRAPHY 232

Radiographic Procedures II
Positioning and patient-care skills applied to additional body systems and correlated with clinical study; proper positioning of patient for demonstration of suspect pathology correlated with previous procedures; includes skeletal and urinary systems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.
3 lecture and 2 lab hours per week. 4 credit hours.

## RADIOGRAPHY 233

Radiographic Procedures III
Study of additional body systems; includes procedures less frequently performed and those requiring special skills or equipment; procedures covered will not normally require invasive techniques. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.
3 lecture and 2 lab hours per week. 4 credit hours.

## RADIOGRAPHY 234

## Special Radiographic Procedure

Procedures frequently performed in modern departments, but which employ surgical or other invasive techniques and injection of contrast media into circulatory system; covers emergency procedures and pertinent aspects of some pharmaceuticals. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Advanced standing in the Radiography program/plan 246.
1 lecture and 2 lab hours per week. 2 credit hours.

## RADIOGRAPHY 242

Radiography Clinical Education II
Application of concepts learned in related radiography classes; emphasis on progression from role of observer to assistant, then to relative independence under supervision of qualified clinical instructors, radiographers, and faculty. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.
1 lecture and 30 lab hours per week. 4 credit hours.

## RADIOGRAPHY 243

## Radiography Clinical Education III

Progression from role of assistant to greater independence under supervision of qualified clinical instructors. Quality and related aspects of special consent will be covered. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.
1 lecture and 30 lab hours per week. 4 credit hours.

## RADIOGRAPHY 244

## Radiography Clinical Education IV

Progression of student to full clinical independence. Upon demonstrating clinical competency, student can refine skills through independent practice, including field experiences in elective specialization. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Radiography program/plan 246.
1 lecture and 40 lab hours per week. 5 credit hours.

## [READING] READING (037)

## READING 099

## Developmental Reading Skills I

Provides skills necessary for efficient reading of textbooks and other materials. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test. 50-150 minutes per week. 1-3 credit hours.

## READING 125

## Developmental Reading Skills II

Efficient reading of textbooks and other materials, including work in mechanics of reading, vocabulary development, comprehension, and rate of reading. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Grade of C or better in Reading 099, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS


#### Abstract

READING 126 Structural Analysis and Critical Reading Focus on reading and analyzing college level materials. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or grade of C or better in Reading 125, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.


## RELIGION [SEE COMPARATIVE RELIGION (133)]

## [REN TC] RENAL TECHNOLOGY / NEPHROLOGY (018)

RENAL TECHNOLOGY / NEPHROLOGY 101
Introduction to Health Care Field and Nephrology
Concepts of the health care field and hemodialysis, and the history and theory of dialysis; batch systems and proportioning systems, single and multiple patient systems, types of dialyzers: plate, coils and capillaries. Types of membrane surfaces, filtration, diffusion; dialysis clearance, and physics of extra-corporeal circuits. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/ plan 247 or 248.
1 lecture and 4 lab hours per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 102

Basic Hemodialysis Principles I
Overview of dialysis equipment, types of dialyzers, blood lines, conductivity meter, blood pump, air bubble detector, dialysis monitoring; negative and positive pressure dialysis, blood flow, vital signs, water treatment (deionization, reverse osmosis). Heparinization, safety monitor, and single needle apparatus. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/plan 247 or 248.
1 lecture and 4 lab hours per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 103

Basic Hemodialsys Principles II
Drug therapy and complications, antihypertensive agents, antibiotics, anticoagulants, and phosphate binders. Calculation of dosages, and apothecary metric. Administration procedures, circulatory hemodynamics of the heart, CHF normal EKG, EKG and ESRD. Writing assignments, as appropriate to the discipline, are part of the course. Admission into the Renal Technology program/plan 247 or 248.

2 lecture and 2 lab hours per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 104

Hemodialysis Procedures I
Advantages and disadvantages of various types of machines, dialyzers and supplies. Dialysis related problems: disequilibrium, air embolism, excessive ultrafiltration, dialyzer rupture, dialyzer clotting, line separation, pyrogenic reaction, hemolysis, convulsions, hepatitis. Conductivity and temperature; effect of end stage renal disease on the patient, family, and dialysis personnel; disease control. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/plan 247 or 248.
6 lab hours per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 105

Heparinization/Bacteriology in Dialysis
Aseptic technique, medical ethics, legal aspects in the field of nephrology, infectious disease control, isolation techniques, patient care techniques, professional relationships of being a member of a health care team, legal aspects of medical records, patient care plan, physician orders, EKG for normal ESRD and arrhythmias. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/plan 247 or 248.

6 lab hours per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 106

Diagnostic Tests and Procedures in Nephrology
Diagnostic tests and their interpretations, urinalysis, collection and examination, hematology, serology, clinical chemistry, including $\mathrm{Na}+$ and $\mathrm{K}+$, flame photometry, diagnostic tests for renal, pulmonary, cardiovascular disorders, EKG and EEG overview. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/plan 247 or 248.
6 lab hours per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 107

Hemodialysis Procedures II
Theory of negative pressure; laboratory instructions in building, sterilizing, priming, testing, washing, and preparing for use. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/plan 247 or 248
1 lecture and 4 lab hours per week. 3 credit hours.

## COURSE DESCRIPTIONS

## RENAL TECHNOLOGY / NEPHROLOGY 108

Clinical Experience I
Observation of hemodialysis in medical units. Surgical principles and techniques, and care and maintenance of the AV fistula, AV shunt, use of the AV fistula or shunt for hemodialysis, venipuncture techniques, types of access devices and accessories, Thomas femoral shunt, dual lumen catheter, types of water treatment delivery systems, blood pumps. Interactions and seminars with nephrologists, social worker, and dietician. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/plan 247 or 248.
1 lecture and 4 lab hours per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 109 <br> Clinical Experience II

Introduction to diagnostic procedures; evaluation and interpretations of physiological or psychological status of the nephrology patient; emphasis on diagnostic tests and their interpretations; evaluation of skills and sterile techniques, setting up plate and hollow fiber dialyzers; infection control. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/plan 247 or 248.
1 lecture and 6 lab hours per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 201 <br> Renal Physiology and Renal Diseases

Anatomy of the kidney; microscopic description of renal parenchyma; physiology - general mechanism of urine formation; urinary renal function; principal symptoms of end stage renal disease. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/plan 247 or 248.
1 lecture and 4 lab hours per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 202

Renal Disease and Pathophysiology
Renal failure; conditions under which renal failure may appear; hypertension, infection, obstruction, nitrogen retention; equilibrium of water and electrolytes; hyperkalemia, acidosis; conservative management; peritoneal dialysis, hemodialysis, diets in renal disease. Writing assignments, as appropriate to discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/plan 247 or 248.
1 lecture and 4 lab hours per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 203

Clinical Experience III
Clinical experience in medical facilities under the supervision of the college coordinator, clinical facilities staff, and nephrologist. Complete hemodialysis treatment of chronic dialysis patients. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/plan 247 or 248. 1 lecture and 4 lab hours per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 204

Clinical Experience IV
Continuation of clinical experience in medical facility. Primary emphasis on developing new skills in care and treatment of acute and chronic renal patient; equipment maintenance procedures, emergency procedures, special procedures patient dietary and fluid regulation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/ plan 247 or 248.
1 lecture and 4 lab hours per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 205

Uremic Syndrome
Renal failure; chronic renal disease; classification glomerular, tubular, interstitial, vascular, and others; general manifestations of chronic renal disease; anemia; water imbalance, electrolyte abnormalities, gastrointestinal manifestation, neurological manifestations of renal disease; treatment, chronic hemodialysis; renal transplantation and acute hemodialysis. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/plan 247 or 248.
2 lecture and 2 lab hours per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 206

Advanced Technology in Nephrology
Completion of didactic experiences in a classroom setting. New modalities in dialysis; CAPD and new delivery system for dialysis, self-care, home training, complications. Patient pre- and post-teaching for nephrectomy and transplants; peritoneal dialysis; manual and automated. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Renal Technology program/plan 247 or 248.
150 minutes per week. 3 credit hours.

## RENAL TECHNOLOGY / NEPHROLOGY 207

## Clinical Experience V

Continuation of clinical experience in medical facility, under the supervision of the college coordinator, clinical instructor, staff personnel, and nephrologist. Development of the following skills: advanced cannula and fistula care, administration of blood, blood sample collection, medical community support; advanced principles of hemodialysis, dietary and fluid review. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of $C$ or better in Renal Technology 203, and Renal Technology 204, or Consent of Department Chairperson.
1 lecture and 6 lab hours per week. 3 credit hours.

## COURSE DESCRIPTIONS

## RENAL TECHNOLOGY / NEPHROLOGY 208

Clinical Experience VI
Completion of clinical experiences in medical facility CAPD and new delivery systems for dialysis, self-care, home training, complications; chronic and acute patients. Patient pre- and post-teaching for nephrectomy and transplants; peritoneal dialysis, manual and automated; complications and emergency procedures, plasmapheresis, bicard, shorttime, hemoperfusion. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Renal Technology 203, and Renal Technology 204, or Consent of Department Chairperson.
1 lecture and 6 lab hours per week. 3 credit hours.

## [RESP TC] RESPIRATORY THERAPY (061)

## RESPIRATORY THERAPY 114

Basic Respiratory Care
Theoretical and protocol based applications of, indications for, and evaluation of efficacy and patient response to basic respiratory care modalities in the cardiopulmonary compromised patient population. Includes such therapeutic modalities as: O2/gas therapy, aerosol and humidity therapy, bronchial hygiene, and hyperinflation therapy. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 116, and Biology 120, and Chemistry 121, and English 101, and Mathematics 118.
3 lecture and 2 lab hours per week. 4 credit hours.

## RESPIRATORY THERAPY 115 <br> Cardiopulmonary/Renal Anatomy and Physiology

Study of cardiac, pulmonary and renal structure, and function with emphasis on physiology as applied to the practice of respiratory care. This includes the integrated functions of ventilation, respiration, gas transport and acid base regulation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 114, and Respiratory Therapy 116, and Respiratory Therapy 117, and Respiratory Therapy 118, and Respiratory Therapy 119, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## RESPIRATORY THERAPY 116 <br> Patient Assessment

Introduction to the role of a respiratory therapist in the hospital setting as a member of a health care team. Includes professional behavior, ethics, legalities, communications, medical terminology, medical charts, and cardiopulmonary assessment. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 116, and Biology 120, and Chemistry 121, and English 101, and Math 118.
100 minutes per week. 2 credit hours.

## RESPIRATORY THERAPY 117

Respiratory Pharmacology
Anatomy and physiology of the nervous system as applied to the pharmacodynamics of bronchodilation and the effects various drugs have on the cardiovascular and pulmonary systems. Indications, dosages, routes of administration, contraindications, adverse effects, and dose calculations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 116, and Biology 120, and Chemistry 121, and English 101, and Math 118.
50 minutes per week. 1 credit hour.

## RESPIRATORY THERAPY 118 <br> Respiratory-Microbiology

Applied microbiology and infection control practices as related to the hospital environment and respiratory care modalities and equipment. OSHA, JCAHO infection control practices, including screening tests and risk factors as well as understanding of all hospital isolation techniques. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 116, and Biology 120, and Chemistry121, and English 101, and Math 118.
1 lecture and 2 lab hours per week. 2 credit hours.

## RESPIRATORY THERAPY 119

Respiratory Care Lab 1
Introduction to basic equipment: design, function, troubleshooting, and care of respiratory therapy devices and circuitry used to deliver therapy, humidity and aerosol therapy, bronchial hygiene, and hyperinflation modalities. Professionalism, communication techniques, and monitoring in conjunction with laboratory simulated hospital procedures and situations. Basic CPR certification and all proficiency testing of clinical procedures. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Biology 116, and Biology 120, and Chemistry 121, and English 101, and Math 118.
6 lab hours per week. 3 credit hours.

## RESPIRATORY THERAPY 127

## Clinical Practice I

Introduction to the hospital setting and the set-up, and maintenance and discontinuation of oxygen; aerosol and humidity therapy; intermittent modalities to include bronchial hygiene and hyperinflation therapies. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 114, and Respiratory Therapy 116, and Respiratory Therapy 117, and Respiratory Therapy 118, and Respiratory Therapy 119, or Consent of Department Chairperson.
12 lab hours per week. 3 credit hours.

# Course Descriptions 

## RESPIRATORY THERAPY 129

## Clinical Practice II

Supervised clinical course with an introduction to airway management techniques, basic ventilator care techniques, pediatric respiratory care, and refinement of floor therapy skills with acute patients. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 115, and Respiratory Therapy 127, and Respiratory Therapy 137, and Respiratory Therapy 139, and Respiratory Therapy 141, or Consent of Department Chairperson.
12 lab hours per week. 3 credit hours.

## RESPIRATORY THERAPY 137

Advanced Pathology and Clinical Application
Acute and chronic respiratory and cardiac pathological processes and their associated renal complications and compensations: diagnostic testing, including arterial blood gases, basic radiographic interpretation, pulmonary function studies, interpretation of laboratory studies, treatment, and prevention of disease processes. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 114, and Respiratory Therapy 116, and Respiratory Therapy 117, and Respiratory Therapy 118, and Respiratory Therapy 119, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## RESPIRATORY THERAPY 139

## Respiratory Care Lab II

Introduction to hospital specific policies and procedures, continuation of application and practice of respiratory care modalities, now applied to the critically ill patient. Emphasis on airway management, mechanical ventilators, circuitry, mechanical ventilation management and techniques. Comprehensive laboratory competency testing. Clinical cases presented as technical management corollaries. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 114, and Respiratory Therapy 118, and Respiratory Therapy 119, or Consent of Department Chairperson
4 lab hours per week. 2 credit hours.

## RESPIRATORY THERAPY 141

Ventilatory-Mechanics I
Theory of basic mechanical ventilator function, methods of ventilation, modes, classification of ventilators, demonstration of basic equipment and circuitry. Airway management indications, selection of type, intubation, management evaluation hazards, extubation, and troubleshooting the artificial airway. Writing assignments, as appropriate to the discipline are part of the course. Prerequisite: Respiratory Therapy 117, and Respiratory Therapy 118, and Respiratory Therapy 119, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## RESPIRATORY THERAPY 146

Ventilatory Mechanics II
Introduction to the theory of mechanical ventilation in the adult patient. Selection of ventilator parameters, commitment, maintenance, and weaning. In-depth presentation, discussion, demonstration of specific adult ventilator systems, CPAP, BiPAP circuits, practice and testing. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 115, and Respiratory Therapy 127, and Respiratory Therapy 137, and Respiratory Therapy 139, and Respiratory Therapy 141, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## RESPIRATORY THERAPY 200

Respiratory Care Lab III
In depth presentation, discussion, demonstration of specific pediatric/neonatal ventilator systems, CPAP circuits, practice and testing. Continuation of adult ventilator practice, practice and integration of other critical care procedures. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 129, and Respiratory Therapy 146, or Consent of Department Chairperson.
4 lab hours per week. 2 credit hours.

## RESPIRATORY THERAPY 222

## Clinical Practice III

Supervised clinical course, providing advanced airway management skills, advanced ventilator techniques, and diagnostic procedures in the hospital setting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 129, or Consent of Department Chairperson.
12 lab hours per week. 3 credit hours.

## RESPIRATORY THERAPY 224

## Clinical Practice IV

Supervised clinical course, providing advanced airway management skills, advanced adult ventilatory techniques, neonatal respiratory procedures ,and advanced cardiopulmonary diagnostic procedures. Exposure to alternate sites of care. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 200, and Respiratory Therapy 222, and Respiratory Therapy 227, or Consent of Department Chairperson.
24 lab hours per week. 4 credit hours.

## Course Descriptions

## RESPIRATORY THERAPY 225

## Age Specific Care

Introduction to age appropriate considerations of patient education, application of therapeutic modalities and manifestations of cardiopulmonary diseases throughout the human life span. Addresses managed care, management patient care plans, and alternate sites of care. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 129, and Respiratory Therapy 146, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## RESPIRATORY THERAPY 227

## Critical Care Services

Advanced cardiopulmonary monitoring with emphasis on ECG interpretation and hemodynamic and exhaled gas monitoring and therapeutic interventions. Chest radiograph, CT and MRI interpretation. Pharmacological agents that affect the cardiopulmonary, renal, and acid base regulatory systems; paralyzing agents, analgesics, sedatives, administration safety, dose range monitoring response to and basic fluid and electrolyte balance. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 129, and Respiratory Therapy 146, or Consent of Department Chairperson.
.3 lecture and 2 lab hours per week. 4 credit hours.

## RESPIRATORY THERAPY 230

Advanced Cardiopulmonary Monitoring
Case studies with PFTs, blood gases, hemodynamic profiles, ECGs, and related diagnostic testing, including related patho physiological changes of cardiopulmonary diseases. Advanced adult, pediatric, neonatal cardiopulmonary life support. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 200, and Respiratory Therapy 222, and Respiratory Therapy 225, and Respiratory Therapy 227, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## RESPIRATORY THERAPY 250

Cardiopulmonary Rehabilitation Home Care
Care of patients with chronic cardiopulmonary disease in a sub-acute setting and in their homes. Long-term therapeutic prescriptions, equipment selection, cleaning and asepsis of equipment in the non-acute care setting. Pulmonary rehabilitation goals and programs presented along with adjunct exercises, equipment, and assistive devices. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 200, and Respiratory Therapy 222, and Respiratory Therapy 225, and Respiratory Therapy 227, or Consent of Department Chairperson.
50 minutes per week. 1 credit hour.

## RESPIRATORY THERAPY 260

## Advanced Specialty Topics

Respiratory care research topics presented, ethics and board examination preparation, computer-assisted clinical simulations along with branching logic, latent image practice, mock certification, and registry examination preparation and practice. Resume, portfolio, and job interview preparation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Respiratory Therapy 225, and Respiratory Therapy 227, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [SOC SCI] SOCIAL SCIENCE (088)

## SOCIAL SCIENCE 101

## General Course

Introduction to the Scientific Study of Human Behavior
A survey of subject matter and concepts selected from the disciplines of anthropology, psychology, and sociology. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SCIENCE 102

General Course II
Introduction to the Scientific Study of Human Behavior
A survey of subject matter and concepts selected from the disciplines of economics, geography, history, and political science. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SCIENCE 103

## Introduction to Applied Social Science

General introduction to the influence of modern scientific technology on the life of the worker, the study of social problems that affect lives of working people in the years to come, and contribution of social science to development of social participation skills necessary for vocational and marital success. Applicable for A.A.S. degree only. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

# Course Descriptions 

## SOCIAL SCIENCE 104

Special Topics in the Social Sciences
Focus on selected topics in social sciences, the characteristics of group life, the effect of the local action on the global scene, and the interrelationships between society, culture, and the individual. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
50-150 minutes per week. 1-3 credit hours.

## SOCIAL SCIENCE 105

## American Social Issues

Critical study of selected current social problems such as labor relations, the welfare system, civil rights, and automation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SCIENCE 106

North and South American Social Development
Structure and culture of modern urban and industrial development; topics include industrialization and leisure, their consequences for status and class organization in the work place and social organization in the wider community, social inequality, social stratification and mobility, and changing and social structures. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SCIENCE 110

## Introduction to Global Studies

To prepare students for an increasingly interdependent world, this multidisciplinary core course cultivates an active conversation about the interconnected global context of our lives. Examines shared and divergent histories, politics, aesthetics, communication practices, cultures, and economies, as well as human impacts on the environment by paying close attention to contradictions among ethnic and religious identities, strong national affiliations, and the fluidity of nation-state borders. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson.
150 minutes. 3 credit hours.

## SOCIAL SCIENCE 115

Introduction to Health Education and Prevention
This course is the first requirement of the HIV/STI Prevention Education Basic Certificate program/plan 195. Introduction to the fundamentals of community health education for prevention, early detection, self care, and recovery, particularly with regard to substance abuse. Survey of health education and outreach programs for diverse populations and communities, including methods of evaluation to determine the effectiveness of various programs, prevention strategies that attempt to motivate positive behavioral changes and the assessment, planning, and evaluation of interventions. Covers the teacher and application of important life skills and provides an overview of managed health care systems. This course is designed for those working or interested in community health occupations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## SOCIAL SCIENCE 116

## HIV/STI Prevention Education

This course is one of the requirements of the HIV/STI Prevention Education Basic Certificate program/plan 195. Designed to provide an introduction to the fundamentals of HIV/STI peer prevention education, the prevention education and related outreach programs geared to diverse populations and communities, methods of assessment to determine the health needs of different communities as well as methods of evaluation as applied to health programs to determine their effectiveness. Covers the areas of HIV/AIDS, other STI's, safer sex, and harm reduction, and the specific communities and neighborhoods that have a positive or negative impact on both individual and community health, particularly those that foster sexual risk-taking behavior. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Social Science 115.
150 minutes per week. 3 credit hours.

## SOCIAL SCIENCE 117

## HIV/STI and Special Populations

This course is one of the requirements of the HIV/STI Prevention Education Certificate program/plan 195. Designed as an introduction to the concerns and issues of HIV/STI and their effect on special populations. Examines related needs and problems of those specific populations, which includes women and children, adolescents and young adults, minorities, men who have sex with men (MSM), the disabled, and those who are incarcerated., and the health needs of the different communities, particularly with regard to prevention, testing, treatment, substance abuse, and care efforts. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Social Science 115. 150 minutes per week. 3 credit hours.

## Course Descriptions

## SOCIAL SCIENCE 118

The ABCs of STIs
This course is one of the requirements of the HIV/STI Prevention Education Certificate program/plan 195. An overview of the more common sexually transmitted diseases (other than HIV) and the effect they have on different populations, including the basic epidemiology of these diseases, their transmission, diagnosis and treatment options, and their various stages. Explores the possibility of contagion and level of incidence, short and long term effects, as well as examines important issues and problems in harm reduction, prevention, and support. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Social Science 116. 150 minutes per week. 3 credit hours.

## SOCIAL SCIENCE 119

## HIV/STI and GLBT Health

This course is one of the requirements of the HIV/STI Prevention Education Certificate program/plan 195. An overview of the state of health for gay, lesbian, bi-sexual, and transgender populations. Examines common behavior and trends of these populations as well as related needs and problems, such as accessing health and social services, and the health needs of the different communities, particularly in the areas of prevention, testing, treatment, and care. Analyzes the impact of HIV/AIDS, STIs, and other diseases on these communities. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Social Science 118. 150 minutes per week. 3 credit hours.

## SOCIAL SCIENCE 120

## HIV/STI Outreach Skills

This course is one of the requirements of the HIV/STI Prevention Education Certificate program/plan 195. Provides advanced education and training in HIV/STI risk reduction in order to conduct peer education and risk reduction counseling in community-based outreach settings. It explores contemporary concerns, as well as recent findings regarding the transmission and risk reduction of STIs and issues relating to gender, sexual orientation, culture, and ethnicity in order to better prepare students to counsel multi-cultural groups. Covers training in careers in public health education. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Social Science 116 or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SCIENCE 121

Case Management/Individual Intervention
This course is one of the requirements of the HIV/STI Prevention Education Certificate program/plan 195. An introduction to the areas of the case management process in health advising with a focus on skills development in the areas of communication skills and techniques for client-centered health advising for different populations, particularly those dealing with HIV/AIDS. Covers the required ethical documentation, and of case manager and in take interviewing, data collection and documentation, and effective use of referrals. Develops the skills necessary to work effectively in HIV/STI prevention health agencies, including the ability to correctly fill in required forms. Explores strategies for managing cases and encouraging client change in diverse populations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of C or better in Social Science 120. 150 minutes per week. 3 credit hours.

## SOCIAL SCIENCE 201

Group Facilitation
This course is one of the requirements of the HIV/STI Prevention Education Certificate program/plan 195. An introduction to both theoretical concepts and practical applications of group dynamics and facilitation skills for people working in the fields of addiction counseling and HIV/ STI prevention education. Explores the basic areas of goal setting, problem-solving skills, effective group facilitation concepts, dealing with different personalities, handling conflict, and reaching consensus, including observation and participation in group dynamics, group membership, and group facilitation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SCIENCE 221

## Black Economics

African Americans as producers rather than consumers, evaluation, understanding of Black power and militancy. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

[SOC SER] SOCIAL SERVICE (091)

## SOCIAL SERVICE 101

Introduction to Social Work
Concepts, principles, and processes encountered by social service workers; questions of motivation, acceptance, attitude, techniques of listening and interviewing. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 102

Introduction to Gerontology
An overview of elder issues including the social, psychological, and physical aspects of the aging process. Examine the economic and social impact of the growing elderly population on US society and global community and career opportunities in this expanding field. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 103

Aging and Social Policy
A study of government policy to familiarize students with programs at the federal, state, and local levels that address elder issues from housing to health care to employment to nutrition and recreation. The creation of public policy, the role of elder advocacy groups in shaping legislative agendas, and issues affecting current and future government programs such as Medicare and Medicaid. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Service 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 104

## Special Topics in Aging

A study of current issues in aging. Topics such as the economics of aging, sexually transmitted diseases, ageism, quality of life and support services for those aging in place (at home) will be explored from a holistic approach to problem identification and basic intervention strategies. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 105

Physiology of Aging
An exploration of the basic changes that occur in the physical make-up of men and women as a result of the aging process. Discussion of the causes and effects of disease and debility, as well as health assessment measures, health care options, and health maintenance strategies. Writing assignments, appropriate to the discipline, are part of the course. Prerequisite: Social Service 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 106

Aging and the Family
An introduction to family theory as found in significant sociological traditions. The effect of the aging process on extended and nuclear families, the changing roles of parent and child, the family stresses and rewards of care giving, the role of aging siblings, relationships between the generations, and the financial and psychological impact of caring for the frail elder in the family setting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Service 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 107

## Aging and Leisure

An exploration of the opportunities that are available to the elderly from the well years to the frail years, for personal enrichment, intellectual development, volunteering, health improvement, travel, spiritual growth and second careers. Explores ways in which a majority of an individuals, older years may be a time of great opportunities for growth, development, and service. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Service 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 109

## Report Writing for Social Service Aides

Introduction to records, reports, and forms required in social agencies; report writing and record keeping. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101.
150 minutes per week. 3 credit hours.

## Course Descriptions

## SOCIAL SERVICE 110

Introduction to Property Management
This survey course is the first of the required courses in the Property Management/Desk Clerk program/plan 368. An overview of the different types of multi-family affordable and supportive housing, including housing linked with social services. Profiles the different populations living in affordable and supportive housing and the role of supportive service personnel in aiding at-risk tenants. Explores the different housing programs that pay for construction, rehabilitation and operating subsidies at the federal, state, and local levels and covers applicable legal concerns, such as the Fair Housing Law. It also introduces the major functions of property management, including specific responsibilities, usual practices, legal functions and issues, and confidentiality and other ethical concerns, and specific vocabulary to the field. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 111

## Tenant Services and Communications

This course is one of the requirements in the Property Management/Desk Clerk program/plan 368. An overview and practice of the interpersonal skills needed for a clerical position in a supportive/affordable housing setting. Provides ways to understand as well as interact effectively with the different populations living in supportive housing. Explores the areas of front desk cordiality, problem identification, and problem solving, as well as the common procedures for oral and written communications and complaints. Provides common procedures for referring tenants for social services. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Service 110.
100 minutes per week. 2 credit hours.

## SOCIAL SERVICE 112

## Desk Clerk Operations

This course is one of the requirements in the Property Management/Desk Clerk program/plan 368. An overview of desk clerk operations, procedures, and security. Explores the role of the front desk and the responsibilities of the position in affordable and supportive housing, covering areas of front desk policies, safety and security, interaction with external agencies and authorities, interaction with tenants and nontenants, confidentiality issues, and maintenance. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Service 110.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 113

Property Management Clerk Internship
This course is the final requirement in the Property Management/Desk Clerk program/plan 368. Combines classroom training with practical property management clerk work experience through on the job training in a supportive or affordable housing project setting. Covers legal, ethical, and performance concerns, as well as interviewing and job placement skills. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Successful completion of all previous Property Management/Desk Clerk certificate program/plan 368 required courses: Social Service 110, and Social Service 111, and Social Service 112 and Consent of Department Chairperson.
1 lecture and 10 lab hours per week. 3 credit hours.

## SOCIAL SERVICE 114

## Marketing and Leasing

This course is one of the requirements in the Property Management/Leasing Specialist program/plan 369. An overview of the major functions and practices of the marketing and leasing specialist in a supportive housing environment. Explores the specific responsibilities, effective communication skills, usual practices, legal functions and issues, as well as applicable ethical concerns facing leasing specialists in a supportive housing setting and examines the characteristics of the different populations living in affordable and supportive housing and the various supportive funding streams. Covers compliance with government policies and procedures and the specific laws pertaining to supportive housing. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Successful completion of the Property Management/Desk Clerk certificate program/plan 368.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 115

## Finance and Accounting

This course is one of the requirements in the Property Management/Leasing Specialist program/plan 369. An overview of the areas of income and expenses for a supportive housing residence, as well as budgeting, and general business math skills necessary for keeping track of income and expenses. Examines different programs which subsidize rentals and low income subsidy regulations, including how to calculate rents under different programs and how to handle rent disputes. Introduces spreadsheets and financial reports and examines property management software such as Excel and Yardi, how to keep track of income and expenses, and how to compute accurate numbers. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Successful completion of the Property Management/Desk Clerk certificate program/plan 368. 100 minutes per week. 2 credit hours.

## Course Descriptions

## SOCIAL SERVICE 116

Maintenance and Risk Management
This course is one of the requirements of the Property Management/Leasing Specialist program/plan 369. An overview of the major functions and responsibilities involved in property management maintenance and risk management in a supportive housing environment. Explores building operating systems, maintenance standards and compliance, enforcement, securing of vendor bids, as well as fire, life safety, and other inspections. Covers the areas of insurance, keeping necessary computer data, and maintaining professional relationships with others. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Successful completion of Social Service 114. 150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 117

## Property Management Leasing Internship

This course is the final requirement for the Property Management/Leasing Specialist program/plan 369. Combines classroom training with work experience through on the job training in a supportive or affordable housing project setting. Covers legal, ethical, and performance concerns, as well as interviewing and job placement skills. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Successful completion of all previous Property Management/Leasing Specialist certificate program/plan 369 required courses: Social Service 114, and Social Service 115, and Social Service 116 and Consent of Department Chairperson.
1 lecture and 10 lab hours per week. 3 credit hours.

## SOCIAL SERVICE 201

## Principles of Social Work Practice

Introduction to social welfare resources of the community; discussion of methods to help persons make use of these resources, including analysis of the helping relationship, role of non-professional worker, problem-solving approach to individual, family, and community problems. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 202

Aging and Human Services
Explores the history of gerontological social work and the methods employed in providing the greatest benefits of human services to the elderly population. Focus on the practical principles of case management from interviewing to evaluation and familiarize with the characteristics of the service settings in which the Gerontology Specialist will encounter the elderly. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Service 102, and Social Service 106, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 203

Inter Communication with the Elderly
Basic principles of communication as employed in counseling and human services settings, emphasizing the development of the listening, speaking, behavioral and attitudinal skills that are required by gerontology professionals at the level of social work assistant. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Service 102, and Social Service 106, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 204

Cross-Cultural Studies in Gerontology
A comparative study of aging in a variety of cultures from traditional to modern. Examine Native American, traditional Chinese, modern European, dominant and minority. American cultures and their attitudes toward the elderly and how these attitudes are crystallized into social policy. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Service 102, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 205

Ethical Issues in Aging
Focus on increases in the population of those fifty (50) and above increases, and so do the emerging issues relative to ethics. Explores issues such as elder abuse, dementia, intergeneration equity, guardianship and living wills, decision making, and personal safety in the context of preparation for those who work with the targeted population. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 206

## Human Development and Aging

Builds on human growth and development, specifically designed to focus on development tasks relative to those who are fifty (50) and beyond. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 212

Introduction to Group Process
Focus on groups; parent groups, community action programs, recreation programs, church groups, or in child care programs. How individuals function as group members; role of the leader; encouraging participation and group action for achieving group goals. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## Course Descriptions

## SOCIAL SERVICE 213

Advanced Group Process
Focus on working with groups; discussion of techniques for working most effectively with different types of groups. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Service 212.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 215

## Social Problems and Social Action I

Problems of urbanization, industrialization, cultural and educational deprivation, juvenile delinquency, and techniques and programs organized to combat these problems. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 228

## Methodology for Social Work

Principles of casework applied to work with families; community resources available to meet economic, emotional, and health needs, techniques for implementing referrals for such services. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101, and Child Development 102, and Social Service 101, and Social Service 201, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 229

## Social Service Practicum

Field work placement in a family welfare agency 20 hours per week, 8 or 16 weeks; 2-hour weekly seminar. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Service 228, and Child Development 107, or Consent of Department Chairperson. 2 lecture and 20 lab hours per week. 6 credit hours.

## SOCIAL SERVICE 248

Principles of Youth and Group Work
Social development and behavior of young people and other adults in all group settings; church groups, street gangs, tutoring programs, recreational groups, YMCAs and YWCAs settlement or delinquency prevention programs. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 102, and Social Service 201, and Social Service 213, and Social Service 215 , or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 249

Practicum in Youth Work
Field work assignment in youth agency 20 hours per week, or 8-16 weeks; 2-hour weekly seminar. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 101, and Child Development 102, and Social Service 101, and Social Service 248, or Consent of Department Chairperson. 2 lecture and 20 lab hours per week. 6 credit hours.

## SOCIAL SERVICE 250

## Practicum I

Combines classroom training with field placement at a community agency or institution serving older persons. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Service 102, and Social Service 105, and Psychology 222.
2 lecture and 5 lab hours per week. 3 credit hours.

## SOCIAL SERVICE 251

## Practicum II

This capstone course provides a review of gerontology course work, field placement experience at a human services agency or institution serving older persons, advanced classroom training in practice concepts related to service delivery to older adults, and guidance in producing a final project that will summarize the students' gerontological course work. Writing assignment, as appropriate to the discipline, part of the course. Prerequisite: Social Service 250. 2 lecture and 5 lab hours per week. 3 credit hours.

## SOCIAL SERVICE 252

Nursing Home Administration
Introduction to administrative practices in long-term care facilities including organization, financial management, staffing, community relations, managing the physical plant, in-service training, and alternatives to institutionalization. Preparation for the Nursing Home Administrator licensing exam. Focus on community health systems, auxiliary agencies and programs, chronic diseases and infirmities, the aging process and the care of the aged, and related local, state, and federal legislation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 253

Accounting for Long Term Care
Focus on the financial knowledge needed to perform the duties of a health care administrator in the long-term care setting. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## SOCIAL SERVICE 258

## Principles of Practice in Community Organization

Focus on community action programs, community planning, or neighborhood improvement. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Child Development 102, and Social Service 101, and Social Service 201, and Social Service 213, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIAL SERVICE 259

Practicum in Community Service
Field work placement in a community service agency plus weekly seminars. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Service 258, or Consent of Department Chairperson.
2 lecture and 20 lab hours per week. 6 credit hours.

## [SOC] SOCIOLOGY (089)

## SOCIOLOGY 110

## Religion and Society

Sociological investigation into the relationship between religious values and forms of social organization. Concentration on contemporary religious movements and includes examples from Christian, Jewish, Islamic and nonwestern religions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIOLOGY 201

## Introduction to the Study of Society

Characteristics of group life, the effects of the group on human conduct, and the interrelationships between society, culture, and the individual. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Science 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIOLOGY 202

## Sociology of Urban Life

Study of urbanization, personal, and social disorganization, collective behavior, social movements and voluntary associations, race and ethnic relations, social stratification, industrial relations, and political sociology. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Science 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIOLOGY 203

Marriage and the Family
Study of the family as a dynamic social institution; emphasis on love, sex, dating, courtship and marriage, child rearing, marital problems, and divorce. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Science 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIOLOGY 205

## Social Problems

An analysis of concrete social problems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Sociology 201, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIOLOGY 207

## Sociology of Sex and Gender

Examines the difference between behavior based on what society says is appropriate in order to be masculine or feminine. Examines the question of what forces in society are most influential in determining the place of men and women with special emphasis on power. Examines how this influence works in the process of socialization and core social institutions, including marriage and family, education, religion, the economy, and politics. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIOLOGY 209

## The Black Man in the United States

Environmental factors that identify African-Americans as an ethnic group in the United States; study of social values, attitudes, definition, behavior, social institutions and processes of this ethnic group. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## SOCIOLOGY 210

## Diverse Cultures in a Global Age

Examines the issues of diversity and prepares students to speak and act with sensitivity and awareness of others, global events and their implications, and how to interact with international visitors through the use of role playing. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## SOCIOLOGY 211

Race and Ethnic Relations
A comparative analysis of racial, religious and ethnic groups. Examines how group identity is formed and how it is maintained or persists how group identity affects inter-group relations, social movements, government policy, and related social problems. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIOLOGY 220

## Poverty and the Law I

Analysis of laws pertaining to credit buying, housing and real estate, and domestic relations (nonsupport, divorce, paternity); study of present state of these laws and impact on the poor. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIOLOGY 222

## Urban Planning Law

Survey of ancient rights and common law rights that limit owners' use of property; includes restrictive covenants, easements, eminent domain, zoning, decision-making structure, housing, and building code violations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson. 150 minutes per week. 3 credit hours.

## SOCIOLOGY 225

## Introduction to Criminal Justice

Philosophical background of criminal justice; history, constitutional limitations, agencies, processes of justice, human nexus; efficiency, morality, legality, compassion criteria for judgment; research areas and trends. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIOLOGY 241

## Institutional Racism

Survey of racism in basic institutions of American life: education, law enforcement, health services, government, business, industry, religion, entertainment, science, and housing. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SOCIOLOGY 280

## Human Relations

Social and psychological aspects of inter-group relations; relationships between the dominant group and minority religious, ethnic, racial, and social class groups. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Social Science 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [SPANISH] SPANISH (057)

## SPANISH 101

## First Course

Pronunciation and basic structures, speech patterns, reading and writing skills. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## SPANISH 102

## Second Course

Continuation of Spanish 101. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Spanish 101, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## SPANISH 103

## Third Course

Review and development of basic language skills, conducted in Spanish. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Spanish 102, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## SPANISH 104

## Fourth Course

Review of language structure and interpretation of readings, conducted in Spanish. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Spanish 103, or Consent Department Chairperson. 200 minutes per week. 4 credit hours.

## SPANISH 111

Spanish for Hispanic Americans
Formal structure of Spanish and preparation for enrollment in advanced courses. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## COURSE DESCRIPTIONS

## SPANISH 113

## Spanish For Near - Native Speakers I

Review of formal structure and sound system of language for near-native speakers; emphasis on accurate, fluent, and effective oral expression. Writing assignments, as appropriate to the discipline, are part of the course. 200 minutes per week. 4 credit hours.

## SPANISH 114

Spanish for Near Native Speakers II
Continuation of Spanish 113. Emphasis on reading and writing skills. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Spanish 113 with a C grade of better, or Consent of Department Chairperson. 200 minutes per week. 4 credit hours.

## SPANISH 191

Survival Spanish Nursing
Provides trans-cultural training for nurses and future nurses. Emphasis is on enhancing quality patient care. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SPANISH 192

## Survival Spanish for Law Enforcement Officers

Provides trans-cultural training for non-Spanish speaking police officers. Emphasis is on enhancing quality communication skills when aiding victims and contact with offenders. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SPANISH 198

## Study Abroad: Intensive

Utilizes a collaborative cohort model for participation in the CCC Spanish summer language and cultural immersion study abroad program. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisites: Completion of Spanish 102, or concurrent enrollment and selection by committee.
100 minutes per week. 2 credit hours.

## SPANISH 199

Study Abroad: Immersion
Bridges the content delivered in Spanish 198 and provides immersion in Spanish language and culture. This specifically designed course will consist of two parts: a pre and post set of sessions in Chicago and a four-week immersion language program in Salamanca, Spain. The language program in Spain, to be delivered by the University of Salamanca, will consist of five-hour daily sessions. Monday through Friday. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Grade of $C$ or better in Spanish 198.
200 minutes per week. 4 credit hours

## SPANISH 206

## Intensive Oral Practice

Practice in spoken language, fluency, and accuracy. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Spanish 104, or Consent of Department Chairperson.
200 minutes per week. 4 credit hours.

## SPANISH 210

## Modern Civilization and Culture

Recent social, cultural, and historical trends, conducted in Spanish and English. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of $C$ or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SPANISH 213

## Introduction to Modern Literature

Selections from contemporary writings, conducted in Spanish. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Spanish 104, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SPANISH 214

## Readings in Literature

Works from selected historical periods, conducted in Spanish. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Spanish 104, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## Course Descriptions

[SPEECH] SPEECH (095)

## SPEECH 100

## Introduction to Oral Communication

Study of the process of communication as it applies to interpersonal, group, or mass communication; emphasis on practical applications of communications in our lives; Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SPEECH 101

## Fundamentals of Speech Communication

Theory and practice of oral communication; development of poise and confidence, delivery, and speech organization; public speaking practice; small group discussion, and development of standards of criticism. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
50-150 minutes per week. 1-3 credit hours.

## SPEECH 102

## Public Speaking

Advanced theory and practice of oral communication in public speaking in speaker-audience situations; discussion of psychological effects of speech techniques, choice of words, attitudes, and structuring; role of speech in gaining consensus in a confrontation of the rhetoric of agitation and control; studies of outside speakers from personal viewing, television viewing, and examination of speech texts, and argumentative techniques used in the persuasive speech. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Speech 101, or Consent of Department Chairperson.
50-150 minutes per week. 1-3 credit hours.

## SPEECH 104

## Group Communication

Principles and theories involved in discussion techniques; participation in various kinds of discussion groups in preparation for leadership roles in community, business, and professional groups. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Speech 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SPEECH 105

## Contemporary Communications

Primary modes of communication used in modern society. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## SPEECH 106 <br> Human Communications

Types of verbal and nonverbal communication, oral and visual as transmission of data and information to elicit a response; includes methods of encoding information for communication, history, social consequences of modern communication, both verbal and visual. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## SPEECH 112

Introduction to Oral Communication
Process of communication applied to interpersonal group and mass communication; emphasis on practical application of communication in our daily lives. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## SPEECH 131

## Introduction to the Theater

Elementary principles of acting, directing, scene design, scene construction, costuming, lighting, sound and makeup for the stage. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## SPEECH 135

Speech Projects
A speech project performed outside of the classroom as an activity. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 2 credit hours will be counted towards graduation. Prerequisite: Consent of Department Chairperson.
3 lab hours per week. 1 credit hour.

## SPEECH 140

Speech Clinic
Focus on the treatment of problems in voice or diction: huskiness, lack of vocal melody, nasality, slovenly diction, sound substitution, and lack of ease in precise articulation of consonant and vowel sounds. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## SPEECH 143

Training the Speaking Voice
Improvement and development of an individual's speech, pitch, volume, and overall articulation through use of phonetics of American English. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## COURSE DESCRIPTIONS

## SPEECH 144

Oral Reading and Interpretation
Study of communication skills required for effective oral reading; experience in oral interpretation of representative examples from prose, poetry, and drama. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Speech 101.
50-150 minutes per week. 1-3 credit hours.

## SPEECH 145

## Radio and Television

Historical development of broadcasting and analysis of existing programs; objectives of radio and television, study of program types, acceptable standards for broadcasting, and career opportunities. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## SPEECH 160

Business and Professional Speech
Speech techniques used in selling, administrative reporting, public relations, program speaking, conference procedures, and other industrial and professional presentations. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## SPEECH 202

## Interpersonal Communication

Study of leadership, group process, and interpersonal relations in the small group, conference, and public forum. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## SPEECH 205

## Family Communication

A study of the family as a communication system and the use of principles of healthy communication within a family context. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 101.
150 minutes per week. 3 credit hours.

## SPEECH 206

## Argumentation

Role of debate in a democratic society; principles of investigation analysis of issues, types and tests of evidence and reasoning as applied to public questions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Speech 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## SPEECH 243 <br> Speech for Teachers

Correcting common errors of articulation, identifying and directing remedial cases, reading aloud with interest, controlling and directing simple classroom discussions, developing good speaking voices, and selecting and presenting assembly programs. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Speech 101, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## [SURG TC] SURGICAL TECHNOLOGY (016)

## SURGICAL TECHNOLOGY 111

Introduction to Surgical Technology
Basic concepts and principles for developing skill competencies required to assist in surgery. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Surgical Technology program/plan 267 or 268.
150 minutes per week. 3 credit hours.

## SURGICAL TECHNOLOGY 112

## Preparation for Surgery

Focus on the skills necessary to help prepare the operating room for surgery. Emphasis is placed on psychosocial and physical needs of the patient requiring surgery. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Surgical Technology program/plan 267 or 268.
3 lecture and 2 lab hours per week. 4 credit hours.

## SURGICAL TECHNOLOGY 113

## Special Patient Care

Acquisition of skills necessary to take care of unique patients. Emphasis is placed on ambulatory, geriatric, pediatric trauma surgeries and contemporary issues. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Surgical Technology program/plan 267 or 268.
150 minutes per week. 3 credit hours.

## Course Descriptions

## SURGICAL TECHNOLOGY 114

Surgical Interventions I
The clinical portion of the course allows putting into action the theory acquired in Surgical Technology 112. Emphasis is placed on reading a preference card, acquiring items needed for the case, hand washing, OSHA and CDC guidelines, don sterile gowns and gloves for self and others, ORSPD, back table set-up, and getting to their field successfully. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Surgical Technology 111, and Surgical Technology 112, and Surgical Technology 113, and Admission into the Surgical Technology program/plan 267 or 268.
3 lecture and 2 lab hours per week. 4 credit hours.

## SURGICAL TECHNOLOGY 115

Surgical Intervention II
A study of surgical procedures with emphasis on surgery of the liver, biliary tract pancreas and spleen thyroid and parathyroid, breast surgery, ophthalmic, otology surgeries. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Surgical Technology 111, and Surgical Technology 112, and Surgical Technology 113, and Admission into the Surgical Technology program/plan 267 or 268.
3 lecture and 2 lab hours per week. 4 credit hours.

## SURGICAL TECHNOLOGY 116

## Surgical Intervention III

A study of surgical procedures with emphasis on laryngologic, head and neck orthopedic, neurosurgery, plastic, and reconstructive surgery. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Surgical Technology 111, and Surgical Technology 112, and Surgical Technology 113, andAdmission into the Surgical Technology program/plan 267 or 268. 3 lecture and 2 lab hours per week. 4 credit hours.

## SURGICAL TECHNOLOGY 117

## Surgical Pharmacology

Introduces the scientific principles of compounds and chemicals as they are used in the surgical setting. This course defines the rationale for use of specific drugs, and their side effects. It renders the student competent in safe handling and labeling medications. Helps students measure and mix medications given to them by the nurse or physician to be used on the field. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Surgical Technology program/plan 267 or 268. 100 minutes per week. 2 credit hours.

## SURGICAL TECHNOLOGY 200

Application Aseptic Techniques
The clinical portion of the course allows putting into action the theory acquired in previous courses. Hand washing, gowning, self and other, gloving self and other, establishing and maintaining a sterile field, getting to the field successfully. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Admission into the Surgical Technology program/plan 267 or 268.
15 lab hours per week. 3 credit hours.

## SURGICAL TECHNOLOGY 211

## Surgical Intervention IV

A study of surgical procedures with emphasis on thoracic, vascular, and cardiac surgery, and resume writing, job placement, interviewing, and negotiating in the job market. Review for the national exam. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Surgical Technology 200.
2 lecture and 1 lab hours per week. 2 credit hours.

## SURGICAL TECHNOLOGY 212

Clinical Practicum I
A clinical course designed to develop proficiency in the skills required of an entry level Surgical Technologist. Current issues in surgery, resume writing, interviewing negotiating in the job market. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Surgical Technology 211.
15 lab hours per week. 5 credit hours.

## SURGICAL TECHNOLOGY 213

Clinical Practicum II
A forum for the discussion of salient issues related to the practice of surgery as they affect the Surgical Technologist. Preparation for employment, as well as review of the comprehensive exam. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Successful completion of all Surgical Technology courses.
24 lab hours per week. 8 credit hours.

## SURGICAL TECHNOLOGY 214

Obstetrics/Gynecologic Technology
Basic concepts and principles for developing skills competencies required for assisting in surgery, including aseptic techniques, scrubbing, gowning, and gloving the female anatomy, proper positioning, patient safety, skin preparation instrumentation, supplies and drugs, equipment, and the surgical interventions. Writing assignments, as appropriate to the discipline, are part of the course. The lab portion of the course allows the student to practice the theory offered. Prerequisite: English 101, and Consent of Department Chairperson, and concurrent enrollment in Surgical Technology 215.
2 lecture and 2 lab hours per week. 4 credit hours.

## COURSE DESCRIPTIONS

## SURGICAL TECHNOLOGY 215

Obstetrics/Gynecologic Technology
Basic concepts and principles for developing skills competencies required for assisting in surgery. Application of aseptic techniques, scrubbing, gowning, and gloving the female anatomy, proper positioning, patient safety, skin preparation instrumentation, supplies and drugs, equipment, and the surgical interventions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: English 101, and Consent of Department Chairperson, and concurrent enrollment in Surgical Technology 214.
12 lab hours per week. 4 credit hours.

## SURGICAL TECHNOLOGY 216

## Sterile Processing Technology

Basic and principles for developing skills and competencies required for infection and control in the sterile processing department in a health care facility, including cleaning, disinfecting, decontamination, sterilization, Standard precautions, and Universal precautions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of English 101, and Consent of Department Chairperson, and concurrent enrollment in Surgical Technology 217 with a grade of $C$ or better.
3 lecture and 2 lab hours per week. 4 credit hours.

## SURGICAL TECHNOLOGY 217

## Sterile Processing Technology Lab

Provide clinical training and the application of principles required for infection prevention and control in the sterile processing department in a health care facility, including clinical experience in cleaning, disinfecting, decontamination, sterilization, Standard precautions, and Universal precautions. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Completion of English 101, and Consent Department Chairperson, and concurrent enrollment in Surgical Technology 216 with a grade of $C$ or better.
12 lab hours per week. 4 credit hours.

## [332TECH] TECHNOLOGY

## 332TECH 400

Scaffold Safety
General safety guidelines for constructing and dismantling scaffolds, including a review of local municipal and OSHA codes, rules and regulations. Writing assignments, as appropriate to the discipline, are part of the course.
50 minutes per week. 1 credit hours.

## 332TECH 401

## Introduction To Labor \& Trade Occupations

This course will provide the student with information about trades and crafts related training programs, unions, and working conditions. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 332TECH 406

## Construction Materials/Methods

This course will provide the student with the information needed on construction materials and methods used in the construction of buildings. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 332TECH 407

## Quality Abatement Supervisor

This course emphasizes the supervisory responsibilities required to safely remove hazardous materials as asbestos and lead. The course will provide instruction on potential health effects, personal protective equipments and information on such hazardous materials as asbestos, lead and mold; removal practices and procedures and other related safety and health concerns. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## 332TECH 408

## Environmental Safety Worker

This course is designed to provide the student with the general knowledge for environment safety workers. It fulfills OSHA's requirements to perform class I and II work. Students will receive instruction on the potential health effects, personal protective equipment, background information on such hazardous materials as asbestos, lead, and mold; removal practices and procedures, and other safety and health concerns. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## Course Descriptions

## 332TECH 409 <br> Construction Safety

This course is intended to provide the student with a basic understanding of safety practices found in the construction industry. Emphasis will be placed upon those areas in construction that are most hazardous, using OSHA standards as a guide. Upon successful completion, students will be issued the OSHA construction safety and health 10-hour course completion card. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 3 lab hours per week. 2 credit hours.

## 332TECH 410

Interior Construction I
This course will provide the student with the opportunity to practice and master the task required for entry level carpentry positions. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 9 lab hours per week. 4 credit hours.

## 332TECH 411

## Interior Construction II

This course will provide the student the opportunity to practice and master the installation and the finishing techniques of interior carpentry, which are required for entry level employment as carpentry apprentice. Particular attention will be given to the installation of finish trim, doors, windows, flooring, hardware, ceilings, counters, cabinets and the finishing of woodwork and trim. Writing assignments, as appropriate to the discipline, are part of the course. 1 lecture and 9 lab hours per week. 4 credit hours

## 332TECH 416

## Exterior Construction I

This course will present material and methods used in various types of concrete forming for building construction. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 9 lab hours per week. 4 credit hours

## 332TECH 417

## Exterior Construction II

This course will focus on rough framing and exterior walls, stairs, porches, decks, roofs and dormers. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 9 lab hours per week. 4 credit hours

## 332TECH 418

## Exterior Construction III

This course focus in on installation of banisters, fascia, siding, windows, doors, screens, gutters, downspouts, roofing materials, and other exterior trim. Writing assignments, as appropriate to the discipline, are part of the course. 1 lecture and 9 lab hours per week. 4 credit hours

## 332TECH 419

## Building Maintenance Math

Basic principles of math with application relative to building maintenance and repair. Course content include: fractions, decimals, percents, measurements, ratios and proportions. Writing assignments, as appropriate to the discipline, are part of the course.
50 minutes per week. 1 credit hours.

## 332TECH 420

Carpentry Maintenance
Basic carpentry skills used in building maintenance and repair. Course content includes: tools, safety, materials, doors, windows, walls, ceiling, and interior trim. Writing assignments, as appropriate to the discipline are part of the course.
50 minutes per week. 1 credit hours.

## 332TECH 421

## Electrical Maintenance

This course covers basic electrical skills used in building maintenance and repair. Course content includes: troubleshooting, testing, repairing, and replacing devices and controls. Use of electric test meters and devices will also be included. Writing assignments, as appropriate to the discipline, are part of the course.
50 minutes per week. 1 credit hours.

## 332TECH 422

## Plumbing Maintenance

Basic plumbing skills used in building maintenance and repair. Course content includes: troubleshooting, repairing, and replacing faulty plumbing and fixtures. Writing assignments, as appropriate to the discipline, are part of the course.
50 minutes per week. 1 credit hours.

## 332TECH 424

## Drywall \& Interior Wood Trim

This course is designed to provide the student with the basic fundamentals of how to install drywall, apply tape and joint compound, sand to a smooth surface, as well as, install wood trim to baseboards, windows, and doors. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 9 lab hours per week. 4 credit hours

## 332TECH 425

## Window and Door Installation

This course is designed to provide the student with the knowledge and skills required to install windows and doors. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 9 lab hours per week. 4 credit hours

## COURSE DESCRIPTIONS

## 332TECH 426 <br> Intro to Concrete Masonry

This course provides an overview of concrete masonry trade, which includes the history and safety standards. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 332TECH 427

## Masonry Tools \& Equip

This course is designed to provide the student with an overview of the types of tools and equipment used in the concrete masonry industry. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 332TECH 428

## Mortar

This course is designed to introduce students to mortar applications. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 3 lab hours per week. 3 credit hours.

## 332TECH 429

## Basic Mathematics and Specifications

This course is designee to teach basic applications of mathematics pertinent to the trade. Emphasis will be placed on actual measurements and calculations, different types of specifications used in the building industry as related to the trade. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 332TECH 430

## Masonry Installation Process

This course is designed to provide students the practical skills required to install masonry units. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 6 lab hours per week. 3 credit hours.

## 332TECH 431

## Specifications \& Building Code

This course will enable the student to adhere to established local codes and laws governing construction and rehabilitation of buildings; measure and estimate costs of labor, time and materials; develop written proposals for specific projects. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 332TECH 432 <br> Basic Arc Welding

In this course, the student will concentrate and master basic welding skills and techniques. An overview of the safety rules and procedures will also be provided. Writing assignments, as appropriate to the discipline, are part of the course.
3 lab hours per week. 1 credit hours.

## 332TECH 434

## Introduction to Plumbing

This course is designed to provide an overview of the plumbing trade which includes the history and safety and sanitation procedures. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 332TECH 435

## Plumbing Tools \& Equipment

This course is designed to provide the student with an overview of the types of tools and equipment used in the plumbing trades. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 332TECH 436

## Plumbing Codes

This course is designed to introduce students to the regulations of Illinois Department of Public Health. Writing assignments, as appropriate to the discipline, are part of the course.
50 minutes per week. 1 credit hours.

## 332TECH 437

## Basic Plumbing Related Mathematics

This course is designed to teach the basic application of mathematics pertinent to the plumbing industry. Emphasis will be placed on actual measurements and calculations of pipes and other fittings. Writing assignments, as appropriate to the discipline, are part of the course.
50 minutes per week. 1 credit hours.

## 332TECH 438

Intro to Fire Protection
This course is designed to provide an overview of the fire protection and sprinkler trade. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 332TECH 439

Home Plumbing System
This course is designed to provide an overview of the plumbing systems within a home. Those systems include: waste, vent and water piping. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## Course Descriptions

## 332TECH 441

## Flooring/Floor Covering

This course will instruct the student in safety precautions for working with adhesives and mastic; safety operation of equipment, and installation of carpeting/padding, as well as the replacement of damaged tiles. Writing assignments, as appropriate to the discipline, are part of the course. 100 minutes per week. 2 credit hours.

## 332TECH 442

## Introduction to Bricklaying

This course is designed to provide an overview of the bricklaying trade, which includes its history and safety standards. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 332TECH 443

## Bricklaying Tools \& Equipment

This course is designed to provide the student with an overview of the tools and equipment used in the bricklaying industry. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 332TECH 444

Bricklaying Installation Process
This course is designed for students to develop and practice the skills and techniques required in bricklaying, Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 6 lab hours per week. 3 credit hours.

## 332TECH 448

Vocational Physical Training I
Vocational Physical Training focus on preparing students for the physical challenges that line worker careers require. Students learn the basic of nutrition and how what we eat fuels our bodies. Students will learn proper techniques to stretch warm up and physically train. Emphasis is given to cardiovascular training as well as leg and upper body strength. Instructors work with students to overcome physical challenges and fears for basic pole climbing. Writing assignments, as appropriate to the discipline, are part of the course.
2 lab hours per week. 1 credit hours.

## 332TECH 449

## Professional Development

This course is designed to provide the student with a basic understanding of the human relations skills necessary to obtain employment and succeed in a quality work environment. This course includes resume development, cover letter writing, job searching skills, networking skills, interviewing techniques, and post-interview skills. Additionally, this course helps students succeed while on the job by exposing students to current workplace trends, team building skills, customer and co-worker relations, attitude and motivation, stress management, and financial management and planning. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 332TECH 451

## Plumbing

This course will enable the student to identify pipe fittings and standard plumbing symbols; install rough plumbing for bath and kitchen fixtures, and install water heating systems. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 9 lab hours per week. 4 credit hours.

## 332TECH 452

Basic Electrical Theory
This class covers the theories behind basic electricity. The emphasis is on electron theory, magnetism, Ohm's Law, and circuitry. Alternating current concepts such as circuits with resistance, inductive and captive reactive circuits, and power factor correction are covered. Basic math skills are used. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 332TECH 453

Overhead Techniques \& Projects I
This first semester discusses basic electric system layout from generator to electrical user and focuses on practical tasks and working concepts associated with electrical line work. Aerial climbing is introduced and practiced; power line equipment is used. Overhead distribution line design, specifications, and construction are part of this class. In this class, students learn basic rope knots, guying and anchoring techniques, electrical connectors, hand tools, and power tools. Additionally, students learn about single phase underground distribution concepts and metering principles. Prerequisite: Grade of C or better in Math 107, and English 197, and 332TECH 448 and 332TECH 449. Writing assignments, as appropriate to the discipline, are part of the course.
3 lecture and 2 lab hours per week. 4 credit hours.

# Course Descriptions 

## 332TECH 458

Overhead Techniques \& Projects II
In this second semester class, students learn about and use advanced levels of topics such as aerial climbing, rope knots and splices, electrical connectors, electrical test equipment, as well as hand and power tools. Students also learn basic hydraulic principles. Application and installation of various electrical apparatus in a lab environment is completed by the students. Overhead distribution structures are constructed, protective grounding is introduced and live line work such as rubber gloving and hot stick use (deenergized lines). Underground distribution (UD) equipment is introduced including cable terminating tools and cable locating equipment. Students will install and terminate UD cable, Three-phase concepts such as metering and UD are covered,. The class covers various component pieces of electrical distribution equipment. The class is introduced to current protective devices including automatic throw overs, high voltage fuses, sectionalizers and oil circuit reclosers. Students learn to identify various powerline type switches and are introduced to step-type voltage regulators. Students practice safety concepts common to line workers. Students also identify and read distribution maps. A trencher/cable plow, trucks and other mobile equipment are used by the students. Students must earn a C or better in this course. Prerequisite: Grade of C or better in 332TECH 452, and 332TECH 453, and 332TECH 462. Writing assignments, as appropriate to the discipline, are part of the course.
3 lecture and 2 lab hours per week. 4 credit hours.

## 332TECH 459

## Construction Safety and Rescue

This course is intended to provide the student with a basic understanding of safety practices found in the construction industry. The student will be provided specific instruction in Flagging and Cardiopulmonary Resuscitation (CPR). Emphasis will be placed upon those areas in construction that are the most hazardous, using OSHA standards as a guide. Upon completion, students will be issued the OSHA construction safety and health 10-hour course completion card. The student will be provided with a basic knowledge of bucket truck and pole top rescue requirements and procedures, rescue equipment and the skills to perform a bucket truck and pole top rescue. Emphasis will be placed upon those areas in the electrical line worker profession. Students must earn a C or better in this course to advance. Prerequisite: Grade of C or better in 332TECH 452, and 332TECH 453 and 332TECH 462. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## 332TECH 462

Vocational Physical Training II
Vocational Physical Training focuses on preparing students for the physical challenges that line worker careers require. Students will build upon the skills developed in Vocational Physical Training I. Students will learn how to select foods to provide optimum health and the best sources of energy. Students will learn how to read labels and how to use food to cleanse and maintain overall health. Students will build upon techniques for stretching, warming up and physical training. Student must earn a grade of $C$ or better in course to advance to Vocational Physical Training III. Prerequisite: Grade of C or better in 332TECH 448. Writing assignments, as appropriate to the discipline, are part of the course.
2 lab hours per week. 1 credit hour.

## 332TECH 463

Vocational Physical Training III
Vocational Physical Training focuses on preparing students for the physical challenges that line worker careers require. Students will build upon the skills developed in Vocational Physical Training II. Students will learn how to produce ideal body composition through food intake and how to balance other physical dimensions of self through physical activities. Students will learn advanced techniques to stretch, warm up and physically train. Student must earn a C or better. Prerequisite: Grade of C or better in 332TECH 462. Writing assignments, as appropriate to the discipline, are part of the course.
2 lab hours per week. 1 credit hour.

## 332TECH 464

## Power Equipment Operations

This course provides instruction in preparation for obtaining a commercial driver's license. In addition, the class covers the operation and use of a variety of power equipment commonly used in the electric power industry including the use of bucket trucks, power take-off equipment, trailers, cable pullers and tensioners. Student must earn a grade of C or better in the course to advance. Prerequisite: Grade of C or better in Math 107, and English 197, and 332TECH 448 and 332TECH 449. Writing assignments, as appropriate to the discipline, are part of the course.
4 lecture and 2 lab hours per week. 5 credit hours.

## 332TECH 465

## Painting \& Decorating

In this course, the students will be provided with instruction in the preparation of surfaces, the selection, mixing, and an application of paints, stains, varnishes, finishes, and wallpaper. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 6 lab hours per week. 3 credit hours.

## COURSE DESCRIPTIONS

## 332TECH 466 <br> Introduction to Painting

The course is designed to provide an overview of the painting and decorating trade, which includes the history of the industry, job ethics, and terminology utilized within the industry. Critical thinking employability skills will also be covered. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 332TECH 467

## Introduction to Painting Tools

The course is designed to provide the student with an overview of the proper use and care of painting tools, equipment, selection, mixing, and application of materials used in painting. Emphasis will also be on safety practices and the storage and disposal of materials. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 3 lab hours per week. 2 credit hours.

## 332TECH 468

Basic Taping
The course is designed to provide students with instruction in the preparation of surfaces of taping. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 3 lab hours per week. 2 credit hours.

## 332TECH 471

## Exterior Repair Remodeling

This course will instruct the student to remove and replace doors and windows; install exterior hardware; install weatherization, insulation and roofing materials. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 9 lab hours per week. 4 credit hours.

## 332TECH 481

## Interior Repair and Remodeling

This course will instruct students to make minor plaster repairs; install interior hardware; replace/repair damaged wood flooring, tile and other floor coverings; apply wallpaper, paints, and other coatings. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 9 lab hours per week. 4 credit hours.

## 332TECH 491

## Residential Electrical Wiring

This course will instruct students in writing of various electrical configurations commonly found in residential systems. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 9 lab hours per week. 4 credit hours.

## 332TECH 509

Introduction to Basic Arc Welding
Various welding theories and processes; including classification and characteristics of welding rods, electrical terms, polarity principles; welding equipment and accessories, are taught. Students develop fundamental skills for performing operations with mild steel plates. Health hazards, safety rules/regulations and OSHA are discussed. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 12 lab hours per week. 6 credit hours.

## 332TECH 510

Blueprint, Layout \& Fabrication
Detail interpretation of welding prints and fabrication, fabrication procedures as well as interpreting basic elements of a drawing or sketch. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 332TECH 515

## Related Mathematics I

This course is deigned to provide to the student those mathematical tools most often needed to solve trade related problems. The instruction includes a review of whole numbers, fractions, decimals, powers, roots, ratios proportions and percentages. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## 332TECH 516

Related Mathematics I/
Continuation of Related Mathematics I. Topics include elementary algebraic operations, geometry, and an introduction into trigonometry. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## 332TECH 518

Manufacturing Materials \& Processes
Introduction to manufacturing materials, methods and processes for drafting and design technicians; basic cold and hot working processes used to join, form weld, shape and cut materials to specification. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture hour per week. 1 credit hour.

## 332TECH 520

Arc Welding
This course provides continued development of the basic skills for performing operations with mild steel plates. Student progress in welding from flat to vertical, down to horizontal, and to vertical up positions. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## COURSE DESCRIPTIONS

## 332TECH 526 <br> Welding Mathematics I

This course gives a student a review of basic mathematics as it pertains to layout and blueprint reading. The course covers decimals, fractions, and converting whole inches to millimeters. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 332TECH 530

## Advanced Welding

This course covers the more advanced and job oriented Metal Inert Gas (M.I.G. or wire welding) and Tungsten Inert Gas (T.I.G. welding) processes used in the welding and fabrication industry of today. The welding processes are: Metal Inert Gas (M.I.G.) Welding and Tungsten Inert Gas (T.I.G.) Welding. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 6 lab hours per week. 4 credit hours.

## 332TECH 577

Communication Skills I
Course covers technical report writing using correct grammar and spelling as well as recommended methods for collecting and organizing materials consistent with established practices.
150 minutes per week. 3 credit hours.

## 332TECH 581

## Concrete Framing

This course will acquaint the student with industry terminology, the tools used in the trade, and safety procedures. Instruction and demonstration will introduce the student to the application of footings, foundation walls, and slab, and stair construction. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 3 lab hours per week. 2 credit hours.

## 332TECH 582

## Residential Carpentry

Training consists of an orientation into the field of carpentry, industry terminology, and the discipline and the uses of tools of the trade. Students will receive hands-on training in the recognition and application of the materials used in residential structures. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 3 lab hours per week. 2 credit hours.

## 332TECH 583

## Basic Hand Tools

This course is designed to introduce students to the operation and safe use of various types of hand tools. Writing assignments, as appropriate to the discipline, are part of the course.

100 minutes per week. 2 credit hours.

## 332TECH 715

Intro to Hand and Power Tools
This course will enable the student to identify, maintain, and illustrate proper handling and care of the various hand and power tools. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 3-6 lab hours per week. 1-3 credit hours.

## 332TECH 761

## Machine Shop Math

This course provides the student with the necessary mathematical foundation for problem solving, review of the basic principles of arithmetic, decimal, fractions, and metrics. It also provides training in the use of algebra, geometry and trigonometry as applied to the solution of practical machine shop problems. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes. 3 credit hours.

## 332TECH 764

## Machine Shop Technology

Students will study the nomenclature of hand tools, engine lathe, grinders, drill press, bandsaws and the use and care of precision measuring instruments. This course provides students with manual, semi-automatic, automatic, numerical and computerized numerical control training in the safe operation of engine and turret lathes, vertical and horizontal milling machine with the proper use of cutting, fluids, basic metallurgy, gears and gear cutting, feed and speeds. The use of the dividing head and rotary table are also emphasized. Writing assignments, as appropriate to the discipline, are part of the course.
200 minutes per week. 4 credit hours.

## 332TECH 767

## Blueprint Reading I

Principles and practices involved in the interpretation of blueprints of varied complexity related to actual trade projects. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## 332TECH 768

Blueprint Reading II
Continuation of Blueprint Reading I. This course will further develop the student's ability to interpret drawings of intermediate and advanced complexity related to actual trade projects. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## COURSE DESCRIPTIONS

## [THR ART] THEATER ART (099)

## THEATER ART 129

Introduction to Theater History
Introduction to theater history from its origins to the present, including theatrical styles and literature. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## THEATER ART 130

## Stagecraft

Introduces safety procedures and basic techniques of scenery and property construction, tool use, scene painting, and backstage organization. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## THEATER ART 131

## Introduction to Theater

Introduction to basic acting, survey of the theater plant and literature, makeup and technical aspects together with terminology of theater. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## THEATER ART 132

Theater Production, Direction and Management
Production and direction of plays; experience in play selection, theater organization, scheduling, audience analysis, box office and record keeping, and publicity. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 4 lab hours per week. 4 credit hours.

## THEATER ART 133

Acting I
Acting techniques, stressing exercises, improvisations, prepared and general acting situations; theories of method and technical methods explained and presented; survey of acting styles. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## THEATER ART 134

Theater in the Modern World
Survey of styles and literature of modern theater from 20th century to present; includes musicals, dance, plays and educational, professional and off-Broadway trends. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
150 minutes per week. 3 credit hours.

## THEATER ART 135

Theater and Special Projects
Special project permitting independent research and or study, including writing of a play or design and execution of a costume or a special and unusual unit of scenery. Writing assignments, as appropriate to the discipline, are part of the course.
50 minutes per week. 1 credit hour.

## THEATER ART 136

## Make-Up Stage Screen and TV

Practical class in makeup and related arts, showing technique for using false hair, wigs, beards and other makeup specialties as well as general makeup of all kinds for stage, screen and television. Writing assignments, as appropriate to the discipline, are part of the course.
100 minutes per week. 2 credit hours.

## THEATER ART 137

## Stage Lighting

Comprehensive study of theory and technique of lighting for the theater; use of all instruments and dimming controls, and work on sound in theater. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## THEATER ART 138

## Topics in Theatre

Special survey course, introducing employment opportunities and procedures in theatre. Writing assignments, as appropriate to the discipline, are part of the course. Course runs in a rotation of 3 topics. Courses may be repeated for a total of 3 credit hours.
50-150 minutes per week. 1-3 credit hours.

## THEATER ART 140

## Sound for Theatre

Comprehensive study of theory and technique of sound and engineering; use of all instruments, amplification, and recording equipment. Writing assignments as appropriate to discipline, are part of the course. Prerequisite: Math 118. 150 minutes per week. 3 credit hours.

## THEATER ART 141 <br> Costumes and Wardrobe

Introduces some theory of costume design, focusing on safety procedures and basic techniques of costume and accessory construction, tool use, fitting use, fitting and draping, and costume shop organization through projects in cutting, stitching, and finishing costumes for production. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## COURSE DESCRIPTIONS

## THEATER ART 143

## Acting Workshop

Practical workshop in performance styles, stage techniques, timing, scene study, and improvisations; students will cooperate in class-produced one-act plays. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## THEATER ART 144

Practice in Modern Theater
Workshop in production of modern plays; readers' theater methods will be used in total concept of modern theater production; less emphasis on detail than in Theater Art 143. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 2 lab hours per week. 2 credit hours.

## THEATER ART 225 <br> Independent Internship Assignment

A course of planned and supervised training that allows the application of theory to actual practice, preparing a student for working independently toward specific career objectives. It takes place at a regular theatre related worksite and instructions/supervision is provided by an employee at the worksite. Students may receive regular pay scale if allowed and if available. Course includes on-campus one-hour weekly seminar. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Consent of Department Chairperson.
1-2 lecture and 10-20 lab hours per week.
1-6 credit hours.

## THEATER ART 230

Stage Management
Practice in stage management; focus on scenes and plays as a stage manager, operation of special sound effects and recording equipment and construction of a complete sound track for a play. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Theater Art 131, or Consent of Department Chairperson
2 lecture and 4 lab hours per week. 4 credit hours.

## THEATER ART 232

## Theater Workshop

Participation in production of one-act and full length plays w ith the class, operated as a theater company; all phases of theater including touring theater, acting, directing, and other areas of theater as a full company experience. Writing assignments, as appropriate to the discipline, are part the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## THEATER ART 233

## Theater Design

Scene design, including preparation of plans, scale models, and ground plans; history of design; project: full design for a play currently produced in the theater. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## THEATER ART 235

Acting II
A continuation of Acting I with an emphasis on an intensive approach to acting exercises, improvisation, and scene study. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Theater Art 133 with a grade of $C$ or better.
150 minutes per week. 3 credit hours.

## THEATER ART 236 <br> Voice and Movement

The study of using voice and movement to interpret and perform works of literature, such as essays, letters, novels, poetry, and short stories, with an emphasis on communicating that interpretation to an audience. Writing assignments, as appropriate to discipline, are part of the course. Prerequisite: Theater Art 133, or Theater Art 134.
150 minutes per week. 3 credit hours.

## THEATER ART 237

## Theatre Production and Management

Production and management of plays and theatres; survey of theatre and production organization, scheduling audience analysis, box office operation, record keeping and publicity. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Math 118 or higher, and Theatre Art 230 can be taken concurrently with instructor approval. 3 lecture and 2 lab hours per week. 4 credit hours.

## THEATER ART 240

## Play Production

A literary exploration of the relationships between dramatic text and the play in performance, with special emphasis on basic terminology and methodology. Representative plays are studied in their genre, historical, and social contexts. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## THEATER ART 242

Improvisational Theater Workshop
Theory and practice of improvisational acting techniques; development of scripting in the moment, development of character and styles; designing and performing an improvisational show. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## Course Descriptions

## THEATER ART 252

## Children's Theater Workshop

Focus on production of a play for children. The class will operate as a theater company and students will work in all phases of theater including acting, directing, stage managing, and producing as a full company experience. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## [330TRNS] LOGISTIC/TRANSPORTATION/ DISTRIBUTION

## 330TRNS 150

Intro to Transportation/Admin.
Provides an overview of basic principles and processes for transportation-related functions in both the public and private sectors; covers state and federal regulations; provides a historical look at transportation in the U.S. and the impact it has on the economy; characteristics of different modules of transportation will be discussed. Review of support functions for transportation management. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 330TRNS 152

## Introduction to Business Logistics

An introduction to the interrelated activities involved with the imbound, in process and outbound movement and storage of goods as well as the related information from the manufacturer to the consumer. Special emphasis placed on how the functional areas of logistics such as customer service, transportation, inventory control, warehousing, and packaging impact supply channel decision-making. Introduction and analysis of the logistics concept to include a brief history of logistics, the management of transportation, inventory, packaging, warehousing, materials handling, order processing, facility location and customer service. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## 330TRNS 154 <br> Traffic Management Customer Service

An introduction to general customer service roles and functions, which include: import/export, vendor management inventory, order management, deduction management, credit, pricing and promotions, and delivery and tracking. Covers the fundamentals of finish goods movements from the point of production to the receipt by the customer; includes transportation, warehousing, inventory deployment, and physical distribution. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## 330TRNS 156

Warehousing and Distribution
Overview of warehouse equipment, procedures, facility layout, the role of the warehouse and logistic and business. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: TRNS 150.
150 minutes per week. 3 credit hours.

## 330TRNS 158

## Purchasing

Overview of purchasing responsibilities, process, and procedures, supplier selection and administration. Sourcing strategies and identifying new suppliers. Negotiation techniques. Purchasing's influence on profitability and cost reduction techniques. How to write purchase orders and contracts. Supplier quality assurance. Role of purchasing in the logistics process and organization. Writing assignments, as appropriate to the discipline, are part of the course. 150 minutes per week. 3 credit hours.

## 330TRNS 200

## Export/Import Management

A study of import/export shipping procedures, including customs clearance, bonded shipping, import financing, and letters of credit, diversion, customer regulations, insurance, import duties and trade restrictions; selection of transportation mode, including covers raw materials, components, and finished goods. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: 330TRNS 150.

150 minutes per week. 3 credit hours.

## 330TRNS 202

## Labor \& Bus Law/Legal Compliance

An overview of the National Labor Relations Act and various governmental agencies that oversee the operations of business in America. Covers the fundamental responsibilities of the employer in the workplace, as they relate to rules and regulations set forth by OSHA, DOT, and the FAA, as well as other agencies that govern business in one way or another. Covers state and federal regulations governing employee rights, collective bargaining units, and labor practices. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## Course Descriptions

## 330TRNS 204

## Global Logistics Management

Survey of the impact of the emerging global market place on today's business environment. Concepts, theories, and evolving practices of global supply chains with today's marketplace. Topics include international terms of sale, impact of e-commerce on global strategies, international transportation carriers, documentation issues, global thirdparty providers, global sourcing, and ethical considerations. Emphasis on how logistics functions as a tool for the integration of international operations. Case studies of companies involved in global logistics practices will be utilized in conjunction with other source materials. Special emphasis on identifying, analyzing, and solving complex business problems situations. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: 330TRNS 152.
150 minutes per week. 3 credit hours.

## 330TRNS 206

## E-Commerce Technology

The purpose of this course is to provide the student with an understanding of the role of electronic commerce (e-commerce) and its impact on supply chain management decision-making. This course is designed to provide the student with a historical perspective of the evolution of e-commerce and how that has affected the supply chain in different organizations. The course will also provide the student with an understanding of some of the latest techniques utilized by leading companies in synchronizing and managing their extended supply chains. The course will examine the emerging role of electronic commerce (e-Commerce) and its impact on logistics and supply chain organizations. Topics include a history of e-commerce, business to business (B2B) models, business to consumer (B2C) models, as well as the evolving paradigm shift e-Commerce is creating for warehousing and transportation strategies and the way we conduct business. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 123 and Math 118 and 330TRNS 158. 150 minutes per week. 3 credit hours.

## 330TRNS 208

## Supply Chain Optimization/Info. Systems

Understand tool supply chain cost. Material flow from suppliers. Warehousing and distribution costs and optimization. Performance measurements for the supply chain. Customer relationship management. Strategic alliances in the supply chain. Relationships with other parts of the organization. Sales and operations planning. An overview and analysis of the various information management technology tools used across the supply chain. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: 330TRNS 150, and 330 TRNS 156, and 330TRNS 158 and 330TRNS 200. 150 minutes per week. 3 credit hours.

## 330TRNS 210

Inventory Control
Fundamental principles of inventory control. Inventory classification - raw materials, work-in-process, and finished goods. Using the 80/20 rule and ABC classifications. Importance of inventory record accuracy. Inventory turnover and other inventory measurements. Principles of Material Requirements Planning and MRP II. Inventory control systems. Internal and external lead time and cumulative lead time. Excess and obsolete inventory. Role of inventory control in the logistics process and organization. Physical inventories and cycle counting. Scheduling techniques. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: CIS 123. 150 minutes per week. 3 credit hours.

## 330TRNS 212

## Supervisor Work-based Learning

Learning is designed to provide an opportunity to perform in a supply-chain/warehousing setting. Students are placed in a college-approved employment situation for 200 hours during a semester. The students may work full or parttime to complete this requirement. Writing assignments, as appropriate to the discipline, are part of the course.
25 lab hours per week. 5 credit hours.

## [VIS COM] VISUAL COMMUNICATIONS (009)

## VISUAL COMMUNICATIONS 101

## Intro to Visual Communication

Introductiontothehistoryandindustryofvisual communication. Basic design principles and practical application of visual communication design inillustration, typography, photography and publication. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 4 lab hours per week. 3 credit hours.

## VISUAL COMMUNICATIONS 102

## Website Design I

Basic procedures in preparing website design and production; Includes web code techniques, color theory, typography, composing style sheets and photo layout. Writing assignments, as appropriate to the discipline, are part of the course.
1 lecture and 4 lab hours per week. 3 credit hours.

## Course Descriptions

## VISUAL COMMUNICATIONS 103

## Commercial Photography

This course is designed to familiarize the student with the basic procedures of digital image capture of products and people. This course explores the use of digital cameras as related to visual communication. Also included are the basic commercial photography techniques in lighting, editing and effects. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## VISUAL COMMUNICATIONS 110

## Production Printing

Astudy of the digital prepress and print production procedures for commercial printing; includes planning and problem solving in layout and design, desktop publishing, digital imaging, proofing and digital print work. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## VISUAL COMMUNICATIONS 114

## Stripping I

Basic instruction and practice in stripping of line film, halftone film, and platemaking. Screen tints, color blocking, butting and overlapping; contacting, step and repeat procedures, proofing, preparation and folding dummies, outlining, and master marks; handling and use of paper, plastic, photodirect, direct image, and pre-sensitized plates; masking, ruling, screen work, and image construction. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## VISUAL COMMUNICATIONS 122

## Graphic Software

This course is designed to familiarize the student with hardware and software used in the visual communications industry. Software includes Adobe Illustrator, Photoshop, Indesign and other computer graphic software used for page layout design. Emphasis is also placed on the study and use of computer hardware equipment such as: Monitors, keyboards, scanners, printers and digital cameras. Writing assignments, as appropriate to the discipline, are part of the course.
150 minutes per week. 3 credit hours.

## VISUAL COMMUNICATIONS 132

## Publication Design

This course is designed to familiarize the student with page layout principles, info graphics and software used in the visual communication industry. Emphasis is placed on the study and hands on operation of graphic computer systems, scanners and laser printers. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## VISUAL COMMUNICATIONS 134

Logo Identity Design
This course is designed to familiarize the student with drawing and illustration software programs used in the visual communication industry. Emphasis is placed on hands on practice with vector computer software programs. Students will develop identity design techniques in computerillustration, symbols and logo identity design systems for organizations, businesses and institutions. Training on the laser printers and image setters is included. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## VISUAL COMMUNICATIONS 201

Design Management
The study of design management practices in the visual communication industry: Sales, marketing, strategic planning, graphic production, job cost, services, studio layouts, purchasing, inventory control, staff positions/management and proposal writing. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## VISUAL COMMUNICATIONS 202

Web Design II
This course is designed to provide the student with an advanced study of website design and production; Includes web code techniques, color theory, typography and composing style sheets and photo layout. It will also explore animation on the web using current web publishing software applications. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Visual Communications 102, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## COURSE DESCRIPTIONS

## VISUAL COMMUNICATIONS 206

Digital Image Capture II
Use of digital photography as related to graphic communications processes. Emphasis on advanced operation and setup of digital camera equipment and utilization of a digital studio for completion of projects. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Visual Communications 224, or Consent of Department Chairperson.
2 lecture and 2 lab hours per week. 3 credit hours.

## VISUAL COMMUNICATIONS 212

## Motion Graphics I

Basic study of electronic publishing and animated motion graphics systems. Instruction of the use of Macintosh computer Adobe Flash motion graphic software will be studied. Emphasis is placed on image composition and motion interaction for hard and floppy disks. Typesetting and image design with action and java script program codes will be studied. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## VISUAL COMMUNICATIONS 214

## Electronic Stripping and Platemaking II

Advanced instruction and practice in image assembly utilizing electronic stripping software, electronic stripping software, including the creation of electronic impositions, templates, and platemaking, and master marks; handling and use of dummies, color proofing, platemaking, and master marks, and handling of RIP and CTP systems. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## VISUAL COMMUNICATIONS 224

Digital Typography
This course is designed to familiarize the student with the computer hardware and software applications used in the visual communication industry. Emphasis is placed on the study of typography font design, specification, effects and copy fitting. Also, the historical developments of typography from ancient to modern times will be studied. Writing assignments, as appropriate to the discipline, are part of the course.
2 lecture and 2 lab hours per week. 3 credit hours.

## VISUAL COMMUNICATIONS 228

Digital Image Creation/Manipulation II
An advanced level course used to further explore image editing and retouching applications as related to graphic communications and the printing industry. Emphasis on creating projects for output to print and the web. Use tools for advanced electronic image creation and manipulation. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Visual Communications 224, or Consent of Department Chairperson. Not more than an accumulated 6 credit hours will be counted towards graduation.
2 lecture and 2 lab hours per week. 3 credit hours.

## VISUAL COMMUNICATIONS 232

## Advanced Electronic Publishing

Page layout software application used in the graphics industry for desktop and electronic publishing, pre-press, and image setting. Emphasis on creating projects for output to print and the web, including the handling of RIP ad CTP systems. Writing assignments, as appropriate to the discipline, are part of the course. Not more than an accumulated 9 credit hours will be counted towards graduation.
2 lecture and 2 lab hours per week. 3 credit hours.

## [ZOOLOGY] ZOOLOGY (029)

## ZOOLOGY 211

## General Zoology

Fundamental principles of animal morphology, physiology, genetics, and ecology. Writing assignments, as appropriate to the discipline, are part of the course. Prerequisite: Placement Test, or English 100 with a grade of C or better, or Consent of Department Chairperson.
2 lecture and 4 lab hours per week. 4 credit hours.

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Celebrating Our Past, Defining Our Future.


[^0]:    **** Effective Fall 2009

[^1]:    Note: For either IAI approved majors or other areas of concentration, students should meet with a CCC College Academic Advisor early to create an interdisciplinary plan that will best suit their needs. For a course(s) that is not part of an IAI-approved major, students should immediately consult both a CCC Academic Advisor and an Admissions Representative at the four-year institution to which they will transfer regarding the transferability of the course(s).

[^2]:    Note: Some of these courses may not be offered every semester. Thus, students should select their courses with consultation from a college Academic Advisor or Department Chairperson. Students should also obtain the course schedule published each academic term or semester for the CCC College from where the student will take courses. The course schedule can also be downloaded from the CCC website http://www.ccc.edu.

[^3]:    *Requires completion of clinical experience/observation hours.

[^4]:    *Students may opt to test out of CSFI 101-General Technology Essentials if they have extensive computer and networking education/experience.
    **Upon completion of the core courses, students may pursue either or both tracks.

[^5]:    Note: Also, see Emergency Management A.A.S. degree 355.

[^6]:    *Note: This program which currently exists at Wright College only is undergoing revision effective spring 2011. The revised program with a proposed title change to "Phlebotomy Technician" will be approved by the Illinois Community College Board (ICCB) for the district. At such time, an addendum to the current catalog will be published. Students should consult with a Continuing Education Academic Advisor and/or obtain the course schedule published each academic term or semester for the CCC College from where the student will take her/his courses. The CE course schedule can also be downloaded from the CCC website at http://www.ccc.edu.

[^7]:    Computer Science
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