

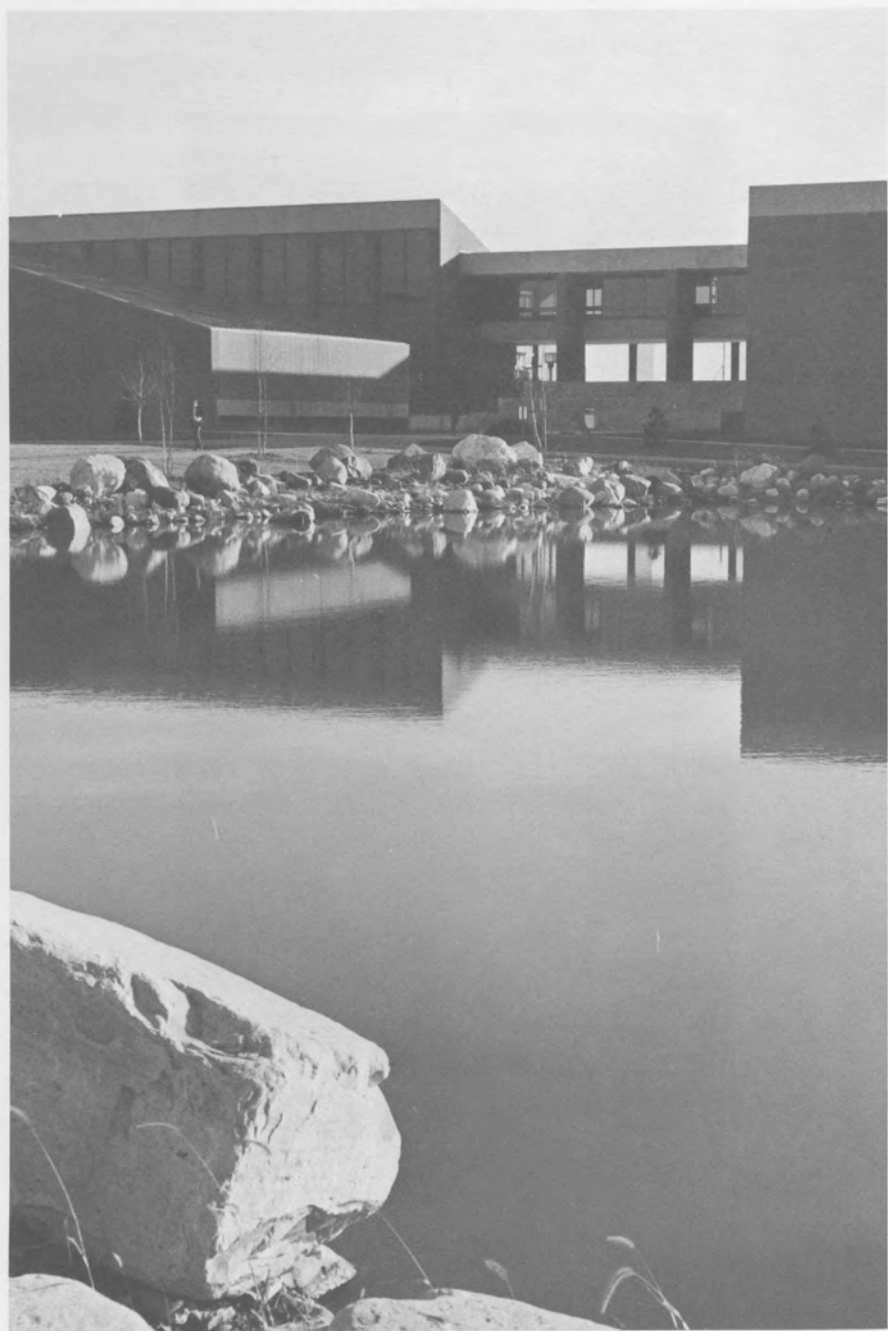
# Bulletin

## 1979/80

William Rainey Harper College



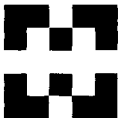




**William Rainey Harper College**  
**1979-80 Bulletin**  
**Volume 13**  
**January, 1979**

**Accreditation:**

North Central Association of Colleges and Secondary Schools  
American Personnel and Guidance Association  
American Dental Association  
Community/Junior College Member of the  
National Association of Schools of Music  
American Bar Association  
Certificate of Real Estate School,  
Department of Registration and Education  
School Approval #46  
Council on Medical Education of the  
American Medical Association in  
collaboration with the American  
Association of Medical Assistants  
American Dietetic Association

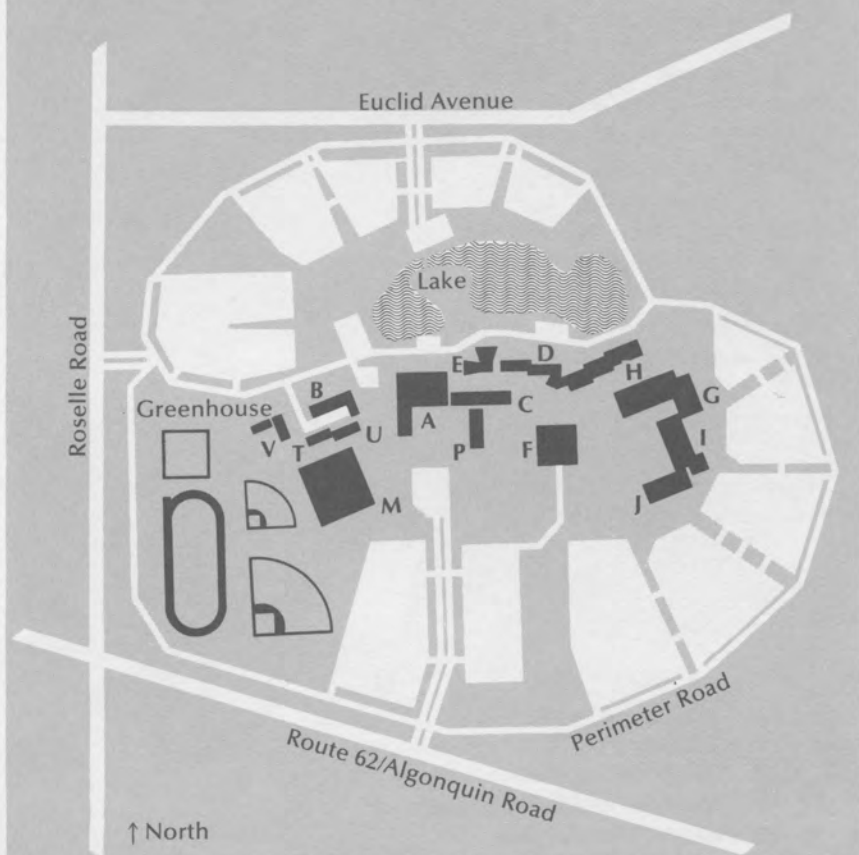


William Rainey Harper College  
Algonquin and Roselle Roads  
Palatine, Illinois 60067  
312 / 397-3000

## Campus Buildings

- |   |   |   |   |
|---|---|---|---|
| A | College Center                                      | J | Business, Social Science, and Vocational Education* |
| B | Public Safety, Power Plant                          | M | Recreation, Athletics and Physical Education*       |
| C | Art and Architecture                                | P | Music Building                                      |
| D | Mathematics and Science                             | T | Grounds Maintenance Shop                            |
| E | Lecture-Demonstration Area                          | U | Athletics, Maintenance Shop                         |
| F | Learning Resource Center                            | V | Roads and Grounds, Park Management                  |
| G | Vocational Technology Shops and Laboratories        |   |   |
| H | Vocational Technology Shops and Laboratories        |   |   |
| I | Business, Social Science, and Vocational Education* |   |   |

\* Under Construction.



**HARPER COLLEGE LIBRARY  
PALATINE, ILLINOIS 60067.**

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## Communities served by Harper College District No. 512

- |                     |                     |
|---------------------|---------------------|
| 1 Arlington Heights | 13 Hoffman Estates  |
| 2 Barrington        | 14 Mount Prospect   |
| 3 Barrington Hills  | 15 North Barrington |
| 4 Inverness         | 16 Palatine         |
| 5 Buffalo Grove     | 17 Prospect Heights |
| 6 Carpentersville*  | 18 Rolling Meadows  |
| 7 Deer Park*        | 19 Roselle*         |
| 8 Des Plaines*      | 20 Schaumburg       |
| 9 Elk Grove Village | 21 South Barrington |
| 10 Fox River Grove* | 22 Tower Lake       |
| 11 Hanover Park*    | 23 Wheeling         |
| 12 Lake Barrington  |                     |

\*Portions of these communities are included in the district.



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## WILLIAM RAINEY HARPER COLLEGE ACADEMIC CALENDAR FOR 1979-80

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### First Semester — Fall, 1979

Open Registration as Scheduled	April through August 20
Faculty Report	August 21
Late Registration	August 23, 24, 25
Classes Begin	August 27
Last Day for Late Registration	August 31
Last Day for Adding Classes	August 31
Labor Day (classes not in session)	September 2-3
Last Day for Refunds	September 8
Midterm	October 19
Veterans' Day (classes not in session)	November 12
Thanksgiving	November 22-25
Classes Resume	November 26
Last Day for Withdrawals	December 15
Final Exams	December 17-22
Semester Break Begins	December 23

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### Second Semester — Spring, 1980

Open Registration as Scheduled	October through January 8
Faculty Report	January 9
Late Registration	January 10, 11, 12
Classes Begin	January 15
Last Day for Late Registration	January 21
Last Day for Adding Classes	January 21
Last Day for Refunds	January 28
Lincoln's Birthday (classes not in session)	February 12
Midterm	March 7
Good Friday (classes not in session)	April 4
Spring Vacation	April 5-13
Classes Resume	April 14
Last Day for Withdrawals	May 10
Final Exams	May 12-17
Graduation	May 18

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### Summer Session, 1980 (Two Eight-Week Staggered Terms)

Registration	May 22, 23
Classes Begin (first eight-week term)	May 27
Last Day for Late Registration	May 29
Last Day for Adding Classes	May 29
Last Day for Refunds (first term)	June 2
Classes Begin (second eight-week term)	June 23
Last Day for Late Registration	June 25
Last Day for Adding Classes	June 25
Last Day for Refunds (second term)	June 28
Midterm	July 3
Independence Day (classes not in session)	July 4
Last Day for Withdrawals (first term)	July 7
Final Exams (first term)	July 17-18
Last Day for Withdrawals (second term)	August 4
Final Exams (second term)	August 14-15



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## WILLIAM RAINEY HARPER

### Father of the Community College

The spirit of Harper College is reflected in its name. William Rainey Harper was a scholar, teacher, writer, and administrator who devoted his life to the pursuit of excellence in education. He accomplished so much in his lifetime that he is counted among the intellectual giants of his day.

A man of vision and an innovator, Dr. Harper was hand picked by John D. Rockefeller to become the first president of the University of Chicago before the turn of the century. During his 15-year presidency, that university emerged as one of the leaders in a movement to reform higher education.

Dr. Harper is recognized as the father of the two-year college, which he initiated at the University of Chicago in 1896. At that time the university was divided into two divisions—the academic college for freshmen and sophomores and the university college for juniors and seniors. Full-fledged emergence of this concept came almost 70 years later with the community college as we know it today.

In Illinois alone there are 39 public two-year community college districts serving more than 315,000 citizens through a full range of transfer, career-vocational, and continuing education programs on both a daytime and an evening basis.

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## THE PRESIDENT'S MESSAGE

As your college in your community, William Rainey Harper College is committed to helping you achieve your educational goals. Whether you come here to begin a college program or to continue your studies, to prepare for a new career or improve skills in your present field, or to pursue personal interests through enrichment offerings, there are opportunities for you at Harper.

If you have not developed a clearly-defined plan for your course of study or career goal, you will find excellent counseling and career information services to assist you in exploring options and clarifying your objectives.

The broad range of educational, social, and service opportunities here can make your college experience a valuable and productive part of your life. We hope you will take full advantage of the growth potential of your time at Harper.

*James J. McGrath*

James J. McGrath



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## **THE COLLEGE**

William Rainey Harper College in Palatine, Illinois is a public community college, an integral part of the Illinois system of higher education. The college, established in 1965 by voter referendum, is governed by an elected board of trustees. Harper serves high school districts 211 (Palatine and Schaumburg Townships), 214 (Elk Grove and Wheeling Townships), as well as Barrington Unit School District 220.

The Harper College district (512) covers an area of about 200 square miles. Communities within the college district are Arlington Heights, Barrington, Barrington Hills, Buffalo Grove, Elk Grove Village, Hoffman Estates, Inverness, Lake Barrington, Mount Prospect, North Barrington, Palatine, Prospect Heights, Rolling Meadows, Schaumburg, South Barrington, Tower Lake, and Wheeling. Also included are portions of Carpentersville, Deer Park, Des Plaines, Fox River Grove, Hanover Park, and Roselle.

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## **BOARD OF TRUSTEES**

The board of trustees is comprised of seven elected individuals who represent the voters of the district and one student representative who has an advisory vote elected by the student body for a one-year term. Regular members serve a term of three years. Board elections are held the second Saturday of April each year.

Meetings of the board of trustees, which are open to the public, are held on the second Thursday of each month at 8:00 pm in the Board Room of the administrative wing of the College Center (Building A) on the Harper campus at Algonquin and Roselle Roads in Palatine.

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## **AFFIRMATIVE ACTION**

Harper College complies with Section 504 of the Rehabilitation Act of 1973 which provides that "no otherwise qualified handicapped individual in the United States shall solely by reason of handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Inquiries concerning Affirmative Action should be directed to 397-3000, extension 230.

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## **ACCREDITATION**

All courses and educational programs, including counseling services, are fully accredited by the North Central Association of Colleges and Secondary Schools. In addition, the Student Development Center at Harper is accredited by the American Personnel and Guidance Association; the clinic operated by Harper's Dental Hygiene career program is accredited by the American Dental Associ-

ation; the Harper Music Department is accredited as a Community-Junior College Member of the National Association of Schools of Music; the Harper Legal Technology program is accredited by the American Bar Association; the Harper Real Estate program holds a Certificate of Real Estate School, Department of Registration and Education School Approval #46; the Medical Office Assistants program at Harper is accredited by the Council on Medical Education of the American Medical Association in collaboration with the American Association of Medical Assistants; and the Dietetic Technician program is accredited by the American Dietetic Association.

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## HISTORY

The story of William Rainey Harper College parallels the history of the community college movement in Illinois, an educational phenomenon in the late 1960's.

Late in 1964, while legislators in Springfield were adding the final revisions to the Illinois Community College Act enabling citizens to form their own college districts, concerned citizens in Chicago's northwest suburban communities petitioned for a referendum to vote on the establishment of a college. Within a matter of days after the legislation passed, voters in the four-township area of Elk Grove, Palatine, Schaumburg, and Wheeling approved a referendum establishing the Harper district—on March 27, 1965.

Groundwork for the referendum to establish a two-year college had been laid early in the 1960's with a survey of student needs and the establishment of a concerned Citizens' Committee. The success of the committee was exhibited in a 3-2 vote margin at the polls. Voters returned to the polls thirty-four days after approving the referendum to elect seven citizens, from among forty-eight candidates, as the first board of the new college.

Two years later, Barrington High School District 224 (now Unit School District 220) annexed to the Harper district, and the boundaries of Harper's 200 square mile constituency were established to become Illinois Community College District 512.

Since its inception, Harper College has been most fortunate in having trustees possessing the capacity to work together in planning programs, solving problems, and establishing goals unique in the annals of the northwest suburbs. The first board meeting was held in May, 1965. The college had no name, no staff, and no facilities, but it did have seven dedicated individuals determined to establish a community college worthy of the area it serves.

During the first year a president was hired, architects were selected to design and plan a campus, the campus site was chosen, and a decision was made to adopt the name of William Rainey Harper College in honor of the "father" of the two-year college concept.

Voters in the district approved a \$7,375,000 building referendum 4 to 1 to begin Harper's second year. By September, 1967, the college was staffed and operating with more than 1,700 students attending evening classes in Elk Grove High School, and ground had been broken for a new campus. Harper College was a reality, and the northwest suburbs had the first college in its 125-year history.

Harper serves as a cornerstone in Illinois educational history as the first two-year institution to complete Phase I of its building construction and the first to receive unqualified full accreditation—only six years after its founding—in the shortest possible time in 1971.

Throughout its brief history, Harper has had a record of monumental growth. The 1967 enrollment of 1,725 students jumped to 3,700 in one year, double the projections. When the doors opened on Harper's new campus in fall, 1969, 5,350 students were enrolled. Enrollment topped 20,000 for the first time in fall, 1975.

The college opened its Willow Park Center in Wheeling in fall, 1975 making available day and evening credit and credit-free offerings.

Harper opened a Weekend College in fall, 1976 designed for students who cannot attend classes during the week.

A successful referendum held in September, 1975 provided funds for the college to proceed with completion of the present campus, purchase land for a second site, and construct the first phase of buildings on that site when required by enrollment increases.

Buildings G and H were completed and classes begun in the facilities in 1977. Building M, the physical education, athletics and recreation facility, is under construction with classes expected to begin there in spring, 1979. Buildings I and J are expected to be open to classes in fall of 1979. All plans are subject to approval by the Illinois Community College Board and the Illinois Board of Higher Education.

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## COMMUNITY ORIENTATION AND INVOLVEMENT

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

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

Harper continues to evaluate itself as it plans for the next decade. Will anticipated building plans be adequate? Is Harper keeping up with community needs in the career/vocational fields? How well is the college serving its constituency in terms of preparing students to meet their future educational and career requirements? Is Harper College, in fact, providing an outstanding program of higher education?

As Harper plans for the future, answers to these questions will be constantly sought and reevaluated to enable the college to continue to be accountable to the community it serves.

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## PHILOSOPHY

An outstanding program of higher education for the community it serves is the guiding philosophy of William Rainey Harper College.

Created by a community responsive to contemporary insistence on more education for more of its citizens, the college is determined to meet the educational and vocational requirements of each student and thus serve the community at large, for a true community college answers to the demands of the total community.

The demands of the community are clear. In addition to the specific need for two years of high quality transferable collegiate credit, the college recognizes the more general, but no less important, requirement of educating all of its students for a meaningful role in a free and fluid society which promises increased leisure time.

Basic to responsible participation in society is the student's contribution in voting more intelligently, producing more efficiently through the acquisition of a salable skill, and adapting more readily to a complex society. In view of the realities of the complexity of a dynamic society and the knowledge explosion, the student must not only learn what is known but also how to acquire knowledge not yet extant.

With a commitment to the dignity and significance of each student, the college endeavors to bring the student to a realization of what place he can make for himself in today's world and to provide the necessary training for his social and personal goals. To this end, the college must provide those cultural experiences which will open to the student the heritage of the educated man.

The mission of William Rainey Harper College, within the framework of this philosophy, is to provide the highest quality community college program of education, to seek out the most modern, creative, and effective organizational and educational ideas, and to test, improve, and implement those ideas which meet the needs of the community. Inherent in this mission is the responsibility of providing these programs at a reasonable cost to the student and at an

efficient and reasonable cost to the community. The ultimate goal is an institution that allows the individual student maximum opportunity to learn and develop.

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## GENERAL EDUCATION

Harper College is committed to a program of general education which acquaints the student with a broad area of knowledge. This knowledge not only provides information in particular subject fields but contributes toward an enlightened and integrated view of life. General education serves to complement specialized training designed to prepare the student for an occupation, whether a trade skill, a technical proficiency, or a professional vocation.

Essential to transfer and career-oriented programs, the aim of general education is to equip the student with important understandings and insights—and the power to communicate them. Thus, efforts to assume the role of a citizen and to earn a livelihood are set in a value perspective that gives a proper order to life's activities.

The general education philosophy of Harper College is intended to permeate the entire college program, enabling all members of the college community to work together to develop and strengthen constructive attitudes, knowledge, and understandings.

Degree graduation requirements have been developed to combine adequate specialization with general education.

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## OBJECTIVES

Specific objectives of the college are:

1. To offer the first two years of *transfer or pre-professional education*, preparing students within their chosen field of study with a sound background commensurate with the first two years of education at a four-year college or university.
2. To offer two-year programs in *technical-vocational training*, providing students with the knowledge and skills required in a specific field.
3. To offer appropriate *general education* for all citizens, preparing them for more effective participation in a free society as well as for personal and cultural enrichment in an era which promises more and more leisure time.
4. To offer *opportunities for adults* in the community to initiate or to continue a collegiate education.

5. To provide *retraining and upgrading courses and programs* to facilitate adjustment to, or re-employment or advancement in, a work environment that is undergoing rapid technological changes.
6. To complement the educational programs with *effective counseling services*, including guidance and assistance to each individual student.
7. To encourage the use of its facilities and services for educational and *cultural purposes* by all citizens of the community.

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## DEGREES

Harper College offers four degrees: The Associate in Arts, the Associate in Science, the Associate in Applied Science, and the Associate in Liberal Studies. The A.A. and A.S. degrees are primarily for students desiring to transfer to four-year institutions. The A.A.S. is primarily for those in two-year career programs, and the A.L.S. is designed for students with special needs.

In addition, the college structures certificate programs designed to meet specific needs of the community. These programs are normally one year in length, and upon completion of the prescribed courses, the student receives a certificate of completion.

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## THE HARPER YEAR

The college follows the semester plan and also offers a two-week Winterim between the fall and spring semesters and an eight-week summer session. Day and evening classes are conducted throughout the college year. The college also offers a limited number of courses during the weekends of the fall and spring semesters.

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## COLLEGE HOURS

The campus is open Mondays through Fridays from 6:30 am until midnight and on Saturdays from 6:30 am until 5:00 pm.

The Willow Park Extension Center is open Mondays through Thursdays from 9:00 am until 9:00 pm, Fridays from 9:00 am to 4:30 pm, when classes are in session.

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## CAMPUS FACILITIES

Completion of the Harper campus, which opened to 5,400 students in September, 1969, brought to the college district a complex of informal contemporary buildings nestled in the rolling terrain of 200 rural acres. On-time delivery of the buildings marks Harper as the first Illinois public community college to complete its entire Phase I project, which was formally dedicated on May 3, 1970.

Campus structures include a comprehensive library and learning resources center; a science and technology laboratory and classroom complex; a lecture-demonstration center; a fine and applied arts complex; a vocational-technical center; a park management and greenhouse facility; a college center for student-related activities; an administrative wing including admissions, business offices, and data processing center; and a central utility facility serving the entire campus.

Since the first phase of the campus was completed, additions to the science complex, fine arts wing, and central utility facility have been completed. The college's physical educational complex is scheduled for completion by January, 1979. Two additional classroom-specialized career program buildings (I and J) are scheduled for completion by September, 1979.

The hub of the campus, the college center, provides a natural meeting place for students and faculty—and includes a lounge, food service facilities, bookstore, various student activity offices, student development center, community meeting rooms, and provisions for almost any activity the multi-purpose design might embrace.

The informal layout of the campus was designed to have a "village street" atmosphere. The architectural concept uses scale and placement of buildings, multi-level plazas, picturesque pedestrian streets, "earth-tone" building materials (brick, wood, and concrete), and glass window walls to give a variety of interior and exterior views, producing a stimulating and pleasing environment for learning and working.

The structures are built into the natural contours of the land, with entrances on several levels. Panoramic vistas from several buildings embrace a small scenic lake to the north of the buildings, with a foot bridge connecting the campus to the parking lot on a hill across the lake.

The Harper campus is an exciting environment for learning, complete with the latest educational tools. Students, alumni, and community residents find pride in a local campus which provides educational and cultural opportunities as well as a conference center for clubs and civic organizations.



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## **BOOKSTORE**

The bookstore, located on the second floor of the College Center, offers a full range of new and used textbooks, current paperbacks, magazines, newspapers, student supplies, educational aids, and sundries. Convenient store hours are posted near the entrance to the bookstore.

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## **PARKING**

All members of the college community, including students, faculty, and staff, are required to register their motor vehicles with the college, display their Harper parking permit decal, and park in the area designated for them. The speed limit in all parking lots is 15 miles per hour, and Illinois Motor Vehicle Laws will be enforced on the campus.

The Public Safety Office in Building B registers vehicles and issues parking permits.

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## **LEARNING RESOURCES CENTER**

The function of the learning resources center is to support the instructional program of the college by providing appropriate services to faculty and students. The staff is qualified and ready to help in the development, acquisition, and use of a variety of audiovisual media and print materials. The LRC collection contains about 85,000 volumes, over 700 magazines, and extensive back issues of the *Chicago Tribune* and *New York Times* on microfilm, as well as tapes, records, slides, films, videotapes, and film strips.

### **LRC Library Services**

The LRC Library Services oversees all circulation of the LRC materials in the collection. Reference service, copy machines, and reserve materials are available on the second floor. Located on the south side of the second floor, this service oversees the acquisition, cataloging, and indexing of all materials added to the LRC collection arranged according to the Library of Congress classification.

### **LRC AV Media Services**

The TV, photographic, and graphics areas design and develop institutional graphics, publications, and instructional media productions aimed at making instruction more effective. Located in the middle and south side of the first floor, the television studio is available for staff and student productions. Also adjacent to this area is AV media equipment distribution and repair service.

## **Flexible Facilities for Instruction**

Eight lecture/demonstration facilities provide the teachers and students with flexible resources for instructional use. These lecture/demonstration facilities are designed for large group instruction and are equipped with audio systems, remote media projection, and television linked directly to the learning resources center.

Other self-instructional spaces and the LRC independent study area, each equipped with a variety of media, are used to support individualized instruction.

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## **ADMISSION**

### **Eligibility**

All high school graduates or the equivalent (GED) are eligible for admission to the college. A non-graduate 16 or 17 years of age who has severed his connection with the high school system, as certified in writing by the chief executive officer of the high school district in which the student has legal residence, or a non-graduate 18 years of age or older, may be admitted if he demonstrates the capacity to benefit from programs and courses offered by the college. To be placed in some programs in the college, the applicant may have to meet additional requirements as specified by that program and the Illinois Public Community College Act.

### **High School Students**

High school students may be admitted to selected courses upon the written recommendation of their high school principal and the college director of admissions.

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## **ADMISSION OPTIONS**

Potential students may select one of the following options and should follow the procedures identified:

### **Transfer Program**

This option is available to those students interested in selecting courses transferable to institutions offering a baccalaureate degree. Applications for these programs are accepted at any time prior to the beginning of the semester. Students may apply at any time and must comply with the procedures outlined in the Application Procedures.

### **Career Programs**

These sequences of courses are designed for individuals who desire to pursue a specific curriculum to prepare them for a particular career. Descriptions of requirements for admission to individual programs are contained in the curriculum outlines in this bulletin. Those programs identified in the Applications Procedures have space limitations. Therefore, students seeking admission must follow the specific application procedures as well as comply with the general procedures.

### **Liberal Studies Program**

This highly flexible alternative is provided for students seeking a non-traditional program emphasizing an individualized approach. A complete description of program requirements is contained in the explanation of the Liberal Studies Program in this bulletin. Students may apply at any time and should follow the standard application procedures.

### **General Studies Program**

Individuals desiring college course work for personal enrichment who register for General Studies courses are automatically enrolled in this program. Upon completion of program requirements, students qualify for a Certificate in General Studies. Program requirements are outlined in the explanation of the General Studies Program in this bulletin. Students may apply at any time and should follow the procedures for enrolling in an Adult or Continuing Education course.

Students not identifying one of the program options are encouraged to consult with a college student development faculty member for advisement and assistance.

### **Community Education (Non-Credit)**

Community Education courses have been established to provide an educational service to the public and are not a part of degree-credit or certificate credit programs. Students may register at any time and should follow the procedures for enrolling in an Adult or Continuing Education course.

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## **TRANSFER STUDENTS**

Students transferring from another accredited institution of higher learning must provide the Admissions Office with official college transcripts covering all previous college work. Students transferring with a cumulative grade point average of 2.0 or better will be given credit for all courses passed if applicable at Harper College. Students transferring with less than a "C" average will be given credit for courses in which a "C" or better is earned. The registrar will specify

acceptable courses. Students dismissed from another institution for disciplinary reasons must be reviewed by Harper's vice president of student affairs.

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## **READMISSION**

Any student who has previously attended Harper College and who is returning after an absence of one semester or more does not need to complete an application for readmission. If a student has attended any other educational institution since previous attendance at this college, official transcripts must be supplied for all academic work taken since last attending Harper College. Students dismissed for disciplinary reasons must be reviewed by Harper's vice president of student affairs.

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## **APPLICATION PROCEDURES**

Candidates seeking admission to either transfer or general studies may apply at any time. Specific procedures for full-time and part-time admission are listed in this section.

Career students can apply at any time unless a space limitation exists in the desired program. It will be the student's responsibility to contact the college to determine the admission status of a desired program. Certain career programs such as Dental Hygiene, Dietetic Technician, Fashion Design, Interior Design, Legal Technology, Medical Laboratory Technician, Medical Office Assistant, Medical Transcriptionist, Nursing, and Operating Room Technician fall into this category and require that the candidate make application according to the following guidelines:

Applications for admission into such programs will be processed beginning October 1 for students planning to enroll the following fall semester. Candidates must be high school graduates or equivalent (GED), or have completed six semesters of high school work prior to applying. If, on October 1, more applications have been received than space available, those candidates with the highest qualifications will be selected. If space is available after October 1, students meeting program requirements for admission will be accepted based on date of application. In-district students will be given priority until April 1.

After April 1 all qualified applicants will be admitted to remaining vacancies based on date the application is received. Notification will be made by May 1.

### **Full-Time Student Admission (Credit only)**

Full-time students (12 semester hours or more) are required to:

1. Apply for admission using forms supplied by the college.
2. Submit official transcripts of all high school work and all college work attempted.
3. Take the college admissions battery. Either of the following test batteries will meet this requirement: American College Test (ACT), Scholastic Aptitude Test (SAT). If either of these tests has been taken, please request that an official score report be forwarded to the Admissions Office. Students may register to take the ACT at Harper College. (Students who have completed 12 semester hours of "C" work or better, either at Harper or at another accredited institution, are exempt from this procedure unless it is an admission requirement for a specific program.) For information, contact the Office of Testing Services.
4. Forward completed personal medical history form.
5. Pay a \$10.00 non-refundable application fee.

#### **Part-Time Student Admission (Credit only)**

Part-time students (11 semester hours or less) are required to:

1. Complete all sections of the application form.
2. Pay a \$10.00 non-refundable application fee.
3. Forward completed personal medical history form.

#### **Community Education (Non-Credit)**

Students desiring to enroll in non-credit courses are accepted to the college by completing the registration process. Registration procedures are available in the class schedule mailed prior to the beginning of each term.

#### **International Student Admission**

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

International students must carry a minimum of twelve (12) semester hours. Because no scholarships or grants are available to international students, it is essential that students from outside the United States have sufficient funds to cover their expenses while in this country. The international student tuition is \$63.60 per semester hour (subject to change without notice).

Before any action can be taken on their applications, international students who wish to become degree-seeking students at Harper College must complete and/or file the following with the Admissions Office at least six weeks prior to the beginning of the semester or summer session in which they are intending to begin their studies:

1. A completed application form with a non-refundable \$10.00 application fee.
2. Official transcripts for at least the last four years of secondary school study and any university-level or post-secondary school work that has been completed or attempted. All these records must list all subjects taken, grades earned or examination results in each subject, and all diplomas and certificates awarded. If these documents are not in English, they must be accompanied by authorized English transcriptions.
3. An official Test of English as a Foreign Language (TOEFL) score report. To be considered for admission, students must receive a minimum converted score of 426 (the twenty-fifth percentile) or above. Students who score below the fiftieth percentile may be restricted to a remedial program.
4. A completed personal medical history form.
5. Affidavit of support.
6. Release letter from foreign student advisor of the previous school attended (this applies to students already enrolled in a school in the United States).

## **RESIDENCY**

Students enrolling at William Rainey Harper College shall be classified as Resident, Non-Resident, Out-of-State, or International for tuition and fee purposes:

### **Resident**

A student whose residence has been determined to be within the William Rainey Harper College District (Illinois Community College District 512).

### **Non-Resident**

A student residing in Illinois but outside Community College District 512.

### **Out-of-State**

A student whose residence is outside the State of Illinois.

### **International**

A student attending Harper College on a student visa.

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**TUITION AND FEES (subject to change without notice)**
**Tuition**

Resident Tuition	\$17.00 per semester hour
Non-Resident Tuition (see Charge-Back)	\$43.81 per semester hour
Out-of-State Tuition	\$61.42 per semester hour
International Student Tuition	\$63.60 per semester hour
Senior Citizen Tuition	\$ 3.00 per semester hour

All tuition and fees are due and payable during registration unless arrangements are made at the Office of Financial Aid or the Office of Admissions and Records.

A one-time application fee of \$10.00 is charged to each new student applying for admission for credit courses. The fee, which is non-refundable, covers the cost of processing the application.

**Activity Fee**

Students enrolled for 12 or more credit semester hours will pay a \$12.00 activity fee for each semester; students enrolled for less than 12 hours will pay a \$6.00 activity fee. No activity fee is charged for students enrolled *only* in credit-free (Continuing Education) courses or Harper classes taught off-campus (extension courses). However, students enrolled only in credit-free and extension courses may pay the activity fee and obtain an activity card (see: Student Activities).

**Special Music Fee**

Students enrolled in minor applied music will pay \$56.00 per semester. This entitles the student to one private lesson per week. Major applied music students will pay \$112.00 per semester and will receive two private lessons per week.

Students may lease musical instruments for \$25.00 a semester, \$15.00 of which may be refunded depending upon the condition of the instrument when it is returned.

**Graduation Fee**

A graduation fee of \$10.00 includes the cost of the diploma (see: Graduation Requirements).

**Laboratory and Music Fees**

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

## Parking Fees

Parking fees will be assessed as follows:

\$2.50 for fall semester

\$2.50 for spring semester

\$1.50 for summer semester

\$1.00 for Continuing Education courses

No parking fee is required for one or two day Continuing Education seminars or workshops. A fee is required for courses taken over a period of weeks.

## CHARGE-BACK TUITION

**Resident Students** desiring to pursue a certificate or degree program not available at Harper College may apply for charge-back tuition if they attend another public community college in Illinois which offers that program.

Students approved for charge-backs will pay the resident tuition of the receiving institution; the Harper College district will reimburse the college for the remainder of the non-district tuition cost.

Application for charge-back tuition is made in the Office of Admissions.

**Non-Resident Students** approved for charge-back tuition from their resident district will pay Harper's resident tuition and their district will reimburse Harper for the balance of the non-resident tuition. Non-resident students attending Harper without charge-back will pay the non-resident fees (see: Tuition and Fees).

## TUITION REFUND POLICY

Tuition refund requests shall be made to the Office of the Registrar. Refunds will be made according to the following schedule:

### Regular Credit Courses

	Per Cent of Refund
Prior to first day of semester (less a \$5.00 service charge)	100%
During first week of class*	80%
During second week of class	50%
No refund after second week of class	

Any extraordinary circumstances involving tuition refund, including withdrawal during the semester for medical reasons, shall be brought to the attention of the Director of Admissions. The Vice President of Student Affairs shall make the final decision on such tuition refund requests.



\*Terminates with the Friday following the commencement of the first full week of classes in accordance with the college calendar. Courses not following the regular schedule will be prorated based on the length of the course.

#### CE Credit and Non-Credit Courses

	Per Cent of Refund
Up to the second class meeting	100%
Up to the third class meeting	50%
After the third class meeting	0%

Refunds for one day CE seminars and workshops cannot be made after the offering has been held.

### WITHDRAWALS

When a student wishes to withdraw from a class after regular registration, he must withdraw officially by petition approved by his student development faculty member. Procedures for official withdrawal shall be available in the Registrar's Office. Procedures for a medical withdrawal are available in the Health Services Office. The following guidelines determine grades for an official withdrawal:

1. Classes dropped prior to the beginning of the fourth week will not become a part of the student's permanent record.
2. A "W" grade will be assigned to a class dropped after the beginning of the fourth week and prior to the sixteenth academic week.
3. A grade of "F" will be assigned to a class dropped after the beginning of the sixteenth academic week. If extenuating circumstances exist, students may petition for a "W" grade through the office of the vice president of academic affairs. Students not withdrawing officially through the student development center are subject to an "F" grade.

### GRADING

At the end of each semester, the student will receive a grade for each class in which he was enrolled at the beginning of the fourth week of the semester. The official grade point average is computed on the basis of final grades awarded at the end of each semester or term.

#### Grade Points

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

Grade	Significance	Grade Point
A	Superior	4.0
B	Good	3.0
C	Average	2.0
D	Poor	1.0
F	Failure	.0
H	Audit	.0
N	Non-Attendance	.0
P	Pass	.0
W	Withdrawal	.0
X	Incomplete	.0

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### ACADEMIC HONORS\*

#### Trustees' Honor List

Each semester, students achieving a grade point average of 3.75 to 4.00 are recognized as Trustees' Honor List students.

#### Dean's Honor List

Students achieving a grade point average of 3.50 to 3.74 during any semester are placed on the Dean's Honor List.

#### Honors List

Students with a grade point average of 3.25 to 3.49 are given recognition on the Honors List.

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\*Part-time students must have accumulated 12 semester hours at Harper to be eligible for an academic honor.

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### STANDARDS FOR ACADEMIC PERFORMANCE

Students enrolled in an academic program must maintain minimum academic performance. In the following table are listed satisfactory and unsatisfactory standards for Harper students:

Attempted Cumulative Hours	Satisfactory	Unsatisfactory
7-18	1.00 or more	.99 and below
19-36	1.50 or more	1.49 and below
37-45	1.75 or more	1.74 and below
46 or more	2.00 or more	1.99 and below

Harper students who have accumulated seven semester hours or more and students who transfer from another institution must make satisfactory performance or be placed on probation.

A student placed on probation will automatically be removed from probation when his cumulative grade point average (GPA) meets the minimum standards for satisfactory performance. A student on probation whose cumulative GPA remains below satisfactory performance can continue on probation if his work in succeeding semesters gives hope that he can achieve a 2.0 average by graduation.

Students whose cumulative GPA remains unsatisfactory for more than one semester may be considered for dismissal.

### **Repeat Policy**

Students who have received "Ds" or "Fs" will be allowed to repeat the courses and attempt to earn a higher grade. When such a course has been attempted more than once, only the highest grade received for that course will be used to compute the cumulative GPA. The lower grade will remain on the transcript but will not be used to compute the cumulative GPA.

### **Behavioral Contracting**

Behavioral contracting is the development of an agreement between a student development faculty member or teacher and a student on probation, the objective being to raise the student's academic performance to the level of satisfactory status. The rationale for behavioral contracting is to provide additional incentives for academic performance.

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## **HONORS PROGRAM**

Harper College seeks to stimulate, encourage, and recognize work of depth, scope, and originality by its students. These demonstrated student abilities have led nearly every department to supplement regular programs with honors options. Whether in transfer or career areas, students may elect honors options of four types:

1. Independent study
2. Courses specifically designed for honors candidates
3. Honors sections of existing courses
4. Honors enrichment topics or projects to augment regular courses

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## **PROBATION**

Probationary students must raise their cumulative grade point average to the minimum required for the succeeding semester in which they are enrolled or they will be considered for dismissal. A probationary student may be required to carry a reduced number of units, upon the recommendation of his student development faculty member, as an added incentive to increase academic performance.

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## **INCOMPLETE GRADES**

A student may receive a grade of "X" for unfinished work in a course provided the work was incomplete because of circumstances deemed to be unavoidable or uncontrollable. The work to be completed will be assigned by the instructor. The unfinished work must be satisfactorily completed by the mid-term of the following semester or the instructor may assign a final grade of "F" or "N".

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## **AUDITING A COURSE**

A student who wishes to audit a course may do so by following the regular registration procedures or by completing a change of schedule form prior to the withdrawal deadline for that course. Students will be required to pay full tuition and fees, and will receive a grade of "H" for the course.

Students who wish to change from audit to credit may do so by completing the change of schedule form by the mid-point of the term.

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## **TRANSCRIPTS**

Official transcripts of a student's academic record will be issued and sent, upon written request, to other educational institutions and prospective employers. Each student is entitled to five transcripts without charge. A fee of \$1.00 is charged for each additional copy.

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## **TRANSFER TO A SENIOR INSTITUTION**

Baccalaureate oriented credits earned at Harper College are transferable to other institutions of higher learning. Students intending to transfer to other institutions should consult with that institution as well as their student development faculty member to assure efficient transfer.

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## **TRANSFER OF CREDIT TO HARPER COLLEGE**

A student who has attended any other college(s) must have an official transcript from each college attended sent to the Admissions Office immediately upon making application. A student may transfer credit to William Rainey Harper College according to the following conditions:

1. The collegiate institution previously attended must be an accredited and/or approved institution awarding college credit.
2. Credit may be transferred to Harper College for courses earning credit and successfully completed with a grade of "D" or above if the student's cumulative grade point average (GPA) is 2.0 or above ("C" average) at the previously attended institution. The student's work at each institution is evaluated independently if several institutions were attended.
3. If the student's cumulative GPA is less than 2.0 at a previously attended institution, credit may be transferred for courses earning credit and successfully completed with a grade of "C" or above.
4. Credit may be transferred, but the grades earned at other institutions are not transferred nor are the grades included in computing the cumulative GPA at Harper College.
5. Religion courses which are of a sectarian nature or courses which are not applicable to programs at Harper College may not receive transfer credit.

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## **STUDENT RECORDS POLICY**

The Student Records policy at Harper College is governed by the Family Education Rights and Privacy Act of 1974. The law and the guidelines for its use at Harper College are available in the Dean of Student Services office.

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## **STUDENT GRIEVANCE POLICY**

A Student Grievance policy and procedure is available for students who feel improper, unfair, arbitrary, or discriminatory judgments or improper use of procedures have been applied to them directly by the college or a college representative. A copy of the procedure can be obtained in the Student Senate office, Student Activities office, or Dean of Student Services' office.

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## STUDENT DEVELOPMENT SERVICES

Counseling and guidance are important functions of a comprehensive community college. Harper recognizes this fact and has developed an extensive program of student development services. Student development faculty serve as academic advisors to all students, especially in the areas of program selection and career decision-making. Students are also encouraged to see student development faculty members when personal or social problems arise.

The Student Development Center maintains a collection of information on vocational and college selection and college catalogs for personal use by the students. Up-to-date transfer information on area colleges and universities is available, including specific information on program requirements for transferring to these institutions. A Career Corner in the Learning Resources Center contains information on a variety of careers and educational programs.

A decentralized counseling approach is used at Harper, with student development faculty housed within divisional offices. They are thus readily accessible to students on an appointment basis. Student development faculty are also on duty in the Student Development Center for students who do not have an appointment. Hours are the regular college hours during the daytime and evening.

Human Potential Seminars and Career Planning and Development Seminars are offered as PSY 110 and PSY 111 for one hour credit each. These classes meet as small groups led by student development faculty. Other small group experiences are also offered from time to time.

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## ORIENTATION

Students are invited to participate in the college orientation program held each year during the summer and in January. General information about the college is presented, and students meet with student development faculty for academic advisement.

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## VOCATIONAL AND ACADEMIC TESTING SERVICES

A comprehensive testing program is available to students without charge. Test results, through proper interpretations, can give valuable information needed to make decisions about future plans and goals. In addition to personality, interest, and aptitude tests, national testing programs such as GED, ACT, CLEP, and dental hygiene aptitude are administered at Harper College.

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## **PROFICIENCY CREDIT PROGRAM**

Students with wide varieties of educational experience may convert this experience into college credits on the basis of satisfactory performance on proficiency examinations. A student who has been officially accepted as a Harper student may apply for and receive college credit by meeting the course objectives for no more than one-half of the academic program required for graduation at Harper. This would include Advanced Placement (AP) credit, College Level Examination Program (CLEP) credit, Harper College Proficiency Examination credit, and Defense Activity for Non-Traditional Educational Support (DANTES, previously USAFI) credit.

Guidelines, policies, and procedures for this program are available from the Office of Testing Services.

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

Credit and placement will be awarded to students with adequate Advanced Placement (AP) examination grades in areas comparable to the Harper curriculum. The granting of credit and/or advanced placement will be determined following the guidelines listed in the "Proficiency Credit" bulletin available in the Office of Testing Services.

### **College Level Examination Program**

Credit through the College Level Examination Program (CLEP) is available to all students who feel they have acquired the necessary proficiency level to meet the basic general education requirements in English, Humanities, Natural Sciences, or Social Sciences. A student who has completed the CLEP General Examinations should request that the scores be sent to the Office of Admissions. Information regarding the CLEP General Examinations may be obtained by requesting a copy of the CLEP "Bulletin of Information for Candidates" from the Harper Office of Testing Services. Criteria for granting credit have been determined by each academic division.

### **Harper College Proficiency Examination Program**

A student who wishes to receive credit for a course by taking a Harper College proficiency examination must secure an application from the Office of Testing Services. Applications for these examinations may be denied due to the nature of the course or because a suitable examination is not currently available.

### **Armed Services Experience Credit**

Credit will be granted for educational experience completed while in the Armed Services. Applicants submitting DD Form 214, Armed Forces of the United States Report of Transfer or Discharge, a transcript of in-service training from the appropriate service, or an official report of educational achievement through Defense Activity for Non-Traditional Educational Support (DANTES,

previously USAFI) will receive credit and advanced placement as recommended by the Commission on Accreditation of Service Experiences of the American Council on Education. These recommendations will be considered if the courses are equivalent to the courses offered by the college.

### **Credit for Life Experience**

Students who are enrolled in the Liberal Studies degree program can apply for credit for life experience. Credit can be granted on the basis of an assessment of a portfolio that documents and describes adult college level skills and knowledge. Additional information can be obtained from the Division of Special Services or the Director of the Liberal Studies program.

## **FINANCIAL AID**

Harper College offers a diversified and comprehensive financial aid program. Harper participates in the following:

### **Federal Programs**

- Law Enforcement (Grants)
- College Work Study (on and off campus)
- National Direct Student Loans
- Nursing Loans and Scholarships
- Armed Forces Tuition Assistance
- Supplemental Educational Opportunity Grants
- Basic Educational Opportunity Grants

### **State-Sponsored Aid Programs**

- Illinois State Scholarships and Monetary Awards
- Illinois Guaranteed Loans
- Illinois Military Scholarships
- Division of Vocational Rehabilitation Programs
- Illinois National Guard Scholarships

### **Scholarships**

Each year the Board of Trustees of Harper College offers to graduates of high schools within the Harper district a series of scholarships called Trustee Scholarships. The Trustee Scholarship will also be awarded to four students selected from the general college population who are not recent graduates from one of the district high schools.

In addition, many private and public agencies are ready and able to assist the worthy college student. Funds are also available through local organizations such as women's clubs, chambers of commerce, the American Association of University Women, business, and industry.



There are many ways to put together needed college funds. Some students receive outright grants or scholarships for a portion of their expenses. Loans up to \$1,500 a year (interest free and no payments while the student is in college) can be obtained. Last but not least, jobs for students under work-study or other employment programs can be obtained to assist with college financing.

Many students utilize a package aid program combining funds from two or three sources to pay for their college education—in addition to what they can expect to receive from their parents. More than 1,600 Harper College students (about 25 percent) are receiving some form of assistance in programs administered by the Office of Placement and Career Development.

Students who plan to attend Harper College and have a need for financial assistance should take the following steps:

1. Submit an application for admission to Harper College
2. Complete the following applications for financial assistance:
  - A. Illinois State Scholarship Commission
  - B. Basic Educational Opportunity Grant
  - C. Financial Aid Form

It is important to complete all these forms, as financial assistance can be received from several sources simultaneously.

Certain financial aid programs have specific standards for academic performance which the student must meet in order to maintain eligibility.

Information on all scholarships, grants, and loans may be obtained from the Office of Financial Aid.

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## **PLACEMENT AND CAREER DEVELOPMENT SERVICES**

Harper College offers a full complement of Placement and Career Development services to students. These services include:

1. Assisting Services—namely, preparatory information on how to seek employment, file applications, write letters, resumes, prepare for interviews, and generally approach the task of becoming employable.
2. Information Services—career, occupational and employer data is collected, disseminated, and discussed with faculty and students so that better decisions on careers can be made in light of current needs and openings.
3. Record Maintenance Services—recommendations, referrals, transcripts, work experience and other supportive data is maintained and disseminated on student request.

4. Counseling and Testing Services—are provided in conjunction with the Harper Student Development staff and the Community Counseling Center.
5. Community and Alumni Services—are also provided with priority given to Harper students and recent graduates of degree or certificate programs.
6. The career corner is located in the Learning Resources Center, Building F. Materials are available for improving and developing career decision making skills.
7. Recruiting, on site visitation service, and Career Day for specific opportunities with participating companies.
8. The Placement and Career Development Center also:
  - a. Maintains listings of jobs in the Northwest suburbs and the greater metropolitan Chicago area.
  - b. Maintains a file of worldwide employment opportunities, the *Affirmative Action Register*, and the Official State Career Guide.
  - c. Compiles employment bulletins from other schools in a binder for student use.
  - d. Publishes an Employment Opportunity Bulletin each week listing current openings.
  - e. Provides information on Civil Service positions — Federal, State and local.

The Placement and Career Development Office is also engaged in frequent wage salary surveys, follow-up studies, and contacts with employers, graduates, federal, state, and local governmental agencies in conjunction with the Harper Office of Planning and Development.

Questions concerning placement opportunities should be directed to the Office of Placement and Career Development.

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## VETERAN SERVICES

Harper College maintains a full-time Veteran Affairs Office which has responsibility for veteran enrollment, certification, special educational programs, and tutorial programs.

Eligible veterans under the Vietnam G.I. Bill receive a monthly educational allowance to attend school. Developmental courses are designed to satisfy education needs or prepare the veteran for more advanced training. Pre-college

courses are not charged toward the veteran's entitlement time although they will be paid by the VA. Full-time veteran students are also eligible for Veterans' Work-Study. Others who may be in doubt as to whether or not they are eligible under VA Widows' Compensation, Vocational Rehabilitation, and other special programs should contact the college veterans' coordinator.

Illinois Veterans who served on active duty for at least one year in World War I or any term after September 16, 1940 are eligible for the Illinois State Veterans Scholarship.

Additional benefits are available to the veteran who is experiencing difficulty in completing his educational objectives. The VA will pay supplementary benefits (up to \$69 per month for a maximum of \$828) for individual tutoring.

Harper offers, to military in-service personnel, a Predischarged Education Program. PREP provides servicemen and women the developmental skills necessary for the pursuit of a college education.

Harper has been designated as a Servicemen's Opportunity College by meeting or exceeding the following criteria: Uncomplicated and non-restrictive admission policies; providing for servicemen to pursue educational programs through courses offered on weekends, evenings, and other non-traditional times; and offering maximum credit for educational experiences obtained in the Armed Forces.

The Veterans' Outreach Division actively seeks out "returning" veterans in the college district and provides veterans with information concerning college programs and curricula. Veterans are also assisted in securing rights, benefits, and services available to them.

Questions concerning veterans' affairs should be directed to the veterans' coordinator.

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## STUDENT ACTIVITIES

A comprehensive activities program is available which includes a college/community program series of lectures, concerts, films, art exhibits, and theater productions sponsored by a student-faculty Cultural Arts Committee; social programs of concerts, films, special events, mini-courses and other programs of interest sponsored by the student College Center Program Board; student publications including the college newspaper *Harbinger*, and a literary and visual arts publication, *Point of View*; a closed circuit student radio station; speech activities; a student travel program; and a program for student leadership development. These programs are financed by student activity fees.

A number of clubs are active, and students are encouraged to begin other organizations within the established guidelines. Among the clubs recognized

are: Astronomy Club, Association of Legal Students, Catholic Campus Ministry, Chess Club, Christian Science Organization, Circle K, Collegiate Illinois Association of the Deaf, Electronics Club, Food Service Association, Future Secretaries Association, Harper's Bizarre (Fashion Design), Geology Club, Intramural Sports Board, Junior American Dental Hygienist's Association, Operating Room Technicians, Phi Theta Kappa (Honorary), Physical Education Majors, Political Science Club, S.E.A.R.C.H. (Solar Energy), Seekers, Sophomore Nurses and Ski Club.

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## CONDUCT

Harper College respects the civil rights and liberties of each member of the college community. A student conduct code has been established to insure these rights and responsibilities. All students are held to be informed of the rules pertaining to these rights and responsibilities which are printed in the *Student Handbook*.

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## ATHLETICS

Harper College is a member of the North Central Community College Conference (N4-C) which includes Triton, DuPage, Wright, Thornton, Illinois Valley, Rock Valley and Joliet Community Colleges for the total membership of the conference.

In addition, Harper College is a member of the National Junior College Athletic Association (NJCAA) which has a membership of approximately 560 Junior Community Colleges throughout the United States.

Harper College participates in football, cross-country, golf, women's tennis, basketball, women's basketball, ice hockey, wrestling, women's gymnastics, track, tennis, baseball, women's volleyball and women's softball.

An extensive intramural program is also available for the Harper students. Activities are promoted both on and off campus. To name a few, activities include flag football, bowling, tennis, water polo, billiards, track, wrestling, weight lifting, softball, and ice skating.

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## FOOD SERVICE

The Harper Food Service offers breakfast, lunch, and dinner Monday through Thursday, and breakfast and lunch on Friday in the College's main cafeteria. Operating hours are as follows:

Monday through Thursday ..... 7:30 am-7:30 pm  
 Friday ..... 7:30 am-3:15 pm

Other facilities include a snack bar in the College Center operating Monday through Friday from 9:00 am–1:00 pm and a dining room operating Monday through Friday from 11:00 am to 1:30 pm (when classes are in session). Food Service also maintains food vending machines located in buildings throughout the campus and Willow Park Center.

Food Service also does “on campus” catering for breakfasts, luncheons, dinners, and special events. This service is available to faculty, staff, and students.

Harper operates a “mini-bakery” in the College’s main cafeteria where a variety of bakery products are available several days per week.

## STUDENT SENATE

The Student Senate is the student government body through which students are represented to the Board of Trustees, administration and faculty. They are responsible for budgeting the student activity fee to provide for a variety of social, cultural, and recreational activities as well as special programs and services. They also act upon student concerns, appoint students to college committees, review and recommend changes in college policy, recognize student clubs and organizations, and in general promote student welfare.

## HEALTH SERVICES

Academic achievement and a choice of educational goals are largely dependent upon the physical and emotional well-being of the student. The college’s acceptance of this fact has meant the recognition of its responsibility to provide a health program equal to the health needs of the students.

The health services program is directed by a registered nurse with experience in counseling. A part-time physician is available daily in the health service to see, diagnose, treat, and refer students as necessary during fall and spring semesters. There are also medications available for treating minor illnesses, as well as testing for strep throat, mononucleosis, pregnancy, tuberculosis, and venereal disease. Students are encouraged to use health service facilities when ill or injured as well as for confidential counseling and care regarding personal health problems. A rest area is available to students, faculty, and staff. Community health resources are utilized for referral when necessary.

The college also recognizes that the health services program has a role in the health education of students. Symposiums and literature on various health-related topics are available to students as well as to community residents.

Health services are available on the Palatine campus from 8:15 am to 10:00 pm, Monday through Friday and from 9:00 am to 1:00 pm on Saturday. Students attending classes at other locations may use these health services. Emergency procedures will be followed at other class sites.

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## **HEARING IMPAIRED PROGRAM**

Supportive services are offered to those students with hearing impairments. The services include: sign language, interpreting, notetaking, tutoring, counseling and special classes in the Preparatory Program.

The Preparatory Program provides the students with an opportunity to adjust to the college environment and to develop essential academic skills to successfully mainstream into the regular classes. The Preparatory curriculum includes special classes in remedial reading, language, vocabulary and mathematics, and in Career Planning and Development.

All new applicants are required to take the Placement Tests in the Hearing Impaired Program. The transferees must see the H.I.P. Counselor for a waiver.

Any hearing impaired applicant who will need one or more of the supportive services is encouraged to contact the Coordinator of the Hearing Impaired Program as early as possible for a supplementary application form and for further information about placement tests, registration and supportive services.

The beginner, intermediate and advanced sign language courses for degree credit are available for those who wish to learn to communicate with the hearing impaired.

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## **CHILD CARE SERVICES**

Child care services are offered for children of Harper students, faculty, and staff. Children ages two through kindergarten will be accepted on a first-come basis as enrollment is limited to space available.

The service will be open only when classes or exams are scheduled from 7:45 am to 4:30 pm, Monday through Friday.

Parents who are considering using the service are responsible for obtaining the current hours and regulations of the service before registering for classes.

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## **COLLEGE SERVICES**

Complete college services may not be available at all off-campus or extension locations.

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## CONTINUING EDUCATION

Harper College believes that education must be a lifelong pursuit to keep abreast of the knowledge explosion and the pervasive influence of social and cultural changes. To meet the educational needs of adults, the college has developed a complete schedule of credit and credit-free offerings. In addition, graduate extension courses are offered on the Harper campus by Illinois colleges and universities.

The Continuing Education program seeks to provide adults with a variety of ways to continue their education in a formal or informal manner. Seminars, conferences and workshops are conducted which are designed to meet the special needs of community interest groups. The needs of business and industry are met through management training seminars. Special programs are offered relating to women's interests in today's changing world along with many other seminars in community leadership training and senior citizen activities.

Harper seeks to extend its educational offerings to other community locations. Credit and credit-free extension offerings are offered at industrial plants, high schools, libraries, apartment buildings, shopping centers and local government offices.

Every effort is made to provide course offerings that respond to community needs and afford both enjoyment and practical benefits. Expansion of Harper's role in assisting community agencies and institutions to achieve their goals is an objective of the college.

### **Institute for Management Development**

Harper College offers business and industrial personnel the opportunity to participate in management and supervisory training seminars scheduled during the course of the academic year. The management training program was created through the joint participation of the college and northwest suburban business and industrial representatives who serve as members of the Harper College Business-Industrial Steering Committee.

Every effort is made to provide training programs related to the needs of area business organizations. The seminars are led by nationally-known experts in the fields of specialized management training.

A list of seminars and workshops held at Harper during the past year includes such subjects as management by objectives, improving employee performance through coaching, the art and skill of delegation, motivation, efficient communication, team building, employee relations, executive stress, managing time, and the woman as a manager.

Northwest suburban business concerns can now arrange to have their employees attend the local management seminars and workshops at a fraction of what it would cost to attend these same offerings when they are sponsored

by professional associations at locations in other parts of the country. Special rates are available to organizations sending "groups" of employees to the training sessions. As an additional service, management training seminars and workshops can be brought to local businesses as a component of in-plant training.

### **Senior Citizen Program**

Senior citizens are a constantly growing segment of the northwest suburban population, and their needs are of vital concern to Harper College. The program is directed by a Senior Citizen Program Coordinator with the assistance of an advisory committee composed of district residents who are either senior citizens or are working with older persons in some capacity.

Objectives of the program are to make Harper's existing services and programs more accessible to older persons, to structure a variety of programs especially for them, and to provide opportunities for professional growth and exchange for those who are concerned with meeting the needs of aging citizens in our community.

All district residents 65 or older are eligible for reduced tuition rates for all courses and workshops offered by the college. Many programs are placed at locations in the community, including parks, churches and nursing homes, so that transportation problems are minimized. The services of the college, including the Student Development Center, Dental Hygiene Clinic and Learning Resources Center are all open to senior citizens. Older persons are welcome and encouraged to attend cultural events sponsored by the Student Activities office.

### **Community Development Education Center**

The purpose of the center is to promote a better informed citizenry in the areas of government and leadership. The center's objectives are to provide information and skills to public officials and professional staff, to increase their efficiency, to interest citizens in becoming more informed and active in all phases of the community, and to bring together citizens, officials, and staff to facilitate greater interaction and understanding between these groups. Seminars, workshops, and special conferences are planned to meet these objectives.

### **Conferences**

The Community Service Office is the coordinating office for special conferences and workshop experiences for community groups, professional associations, and individuals sharing special interests. The facilities of the college provide well-equipped meeting rooms and food service for evening programs, full-day seminars and week-end conferences. The Community Services staff will assist local groups in planning, publicizing and operating conferences, or can



independently implement and design any special learning experiences to meet identified needs in the community.

### **University Extension Courses**

University undergraduate and graduate level instruction is offered at Harper College through extension courses from various four-year colleges and universities. With proper planning and counseling, it is possible for a person to earn most or all of the requirements for a bachelor's or master's degree in business administration or a master's degree in education on the Harper campus or in various Harper district locations.

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## **WOMEN'S PROGRAM**

At a time when questions of optional life styles are being raised, the Women's Program attempts to help women know themselves better, to understand their relationships within their society, and to participate more effectively in their chosen roles. Workshops, continuing education offerings, credit program offerings and referral services are designed to provide women with information, skill development, and personal guidance in the areas of individual growth and awareness, interaction and communication with others, career development, community awareness and involvement, and women's studies.

A special effort has been made to schedule programs at convenient times for women and to provide day long child care facilities at the college at a minimal cost.

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## **SPECIAL SERVICES**

### **Learning Laboratory**

Harper College has established a learning laboratory to assist students who encounter academic difficulty.

Students entering college with academic deficiencies may be referred to the learning laboratory. After completing a battery of tests and having an interview with a student development faculty member, a program designed around the needs of the student would be recommended. This program could consist of any combination of the following courses presently offered through the learning laboratory and would be supplemental to other courses the student may choose to take:

CMN 097, Spelling Improvement; CMN 098, Vocabulary Development; CMN 099, Language Skills; RDG 099, Developmental Reading; RDG 104, Reading Acceleration; MTH 094, Arithmetic; MTH 095, Elementary Algebra; MTH 096, Geometry; ESL 098-099, English As A Second Language; PSY 099, Learning and Adjustment to College; PSY 110, Human Potential Seminar.

(Courses in the Learning Laboratory are offered through individualized instruction.)

### **Tutoring Services**

As a part of the Learning Laboratory a “walk in” tutoring center has been developed and is available free of charge to any Harper student. During posted time periods, a student can come to the Learning Laboratory and receive academic assistance. Tutoring is available for most subjects offered by the college. Further information can be obtained from the Learning Laboratory.

### **English as a Second Language**

Six levels of English courses including listening, speaking, reading and writing skills are offered for limited- or non-English-speaking persons who are at least sixteen years of age. Emphasis in these classes is on the English skills needed for everyday living. Supplementary classes in reading, writing and conversation are also offered. Classes are held days, afternoons and evenings on the Palatine campus and at various other locations in the community. Funded by the State of Illinois, all classes and tutoring and counseling services are free to students enrolled in the program. There is also a citizenship training class for interested students. For further information, contact the Coordinator of English as a Second Language.

### **Basic Skills and GED**

The Adult Basic Education Program provides academic instruction for persons at least sixteen years of age whose skills in mathematics, English, and reading are below the twelfth grade level. Daytime and evening courses are offered in Developmental Reading, Reading for Comprehension (GED), Basic English Skills, English Grammar Review (GED), Basic Mathematics, Intermediate Mathematical Skills (GED), and Citizenship Training.

When students register, they are tested to determine proper placement. Free tutoring and counseling services are also provided for all Adult Basic Education students in each of the subject areas.

The Adult Basic Education Program is funded by the Illinois Office of Education and all instruction and services are free to the students. For further information, please contact the Coordinator of Adult Basic Education.

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## **COLLEGE COMMUNITY PROGRAMS**

A student-faculty Cultural Arts Committee provides the college and community with programs representative of the various arts—dance, drama, exhibits, film and music, and a lecture series for discussion of relevant issues. These programs are sponsored by the Student Activities Office and financed by student activity fees.

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## **OPEN TEST CENTER FOR CLEP**

The College Level Examination Program (CLEP) tests sponsored by the College Entrance Examination Board are administered monthly by the Office of Testing Services. This program offers a means of converting knowledge gained in a variety of ways into college credit. Students are urged to contact the college of their choice to determine if they will accept and act upon results of the examinations.

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## **OPEN TEST CENTER FOR GED**

Harper College is an approved test center for the General Educational Development test. Upon passing the GED test, a high school equivalency certificate will be issued by the Cook County Superintendent of Schools.

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## **COMMUNITY COUNSELING CENTER**

Harper's Community Counseling Center makes psychological services available to non-student residents of the community, on a fee basis.

Clients are assisted in making intelligent occupational choices through the use of psychological and vocational counseling. This service includes the administration and interpretation of intelligence and personality tests, as well as measurements of interests and preferences. Clients are aided in an exploration of the world of work, job interviewing, and resumé writing.

Another function of the center is to provide an evaluative, diagnostic, and psycho-therapeutic service for adults and adolescents with personal, social or emotional problems. The broad gamut of problems our staff works with includes marital discord, divorce adjustment, sexual problems, family relationships, and drug related problems.

The Community Counseling Center is located in Building A, room 347. Further information may be obtained by calling the Community Counseling Center, at 397-3000, extension 273.

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## **GRADUATION REQUIREMENTS**

1. Attainment of a minimum of 60 semester hours of credit, at least 30 of which must be earned in attendance at Harper College. Waiver of this requirement by the vice president of academic affairs may be made where exceptional circumstances warrant. Up to two hours credit in physical education activity courses may be included as free electives in the minimum 60 required hours for an associate degree.
2. Attainment of a minimum grade point average of 2.0 for all work taken for the associate in arts and the associate in science degrees. Attainment of a minimum grade point average of 2.0 for any applicable 60 semester hours work for the associate in applied science and associate in liberal studies degrees.
3. Meet the Constitution Requirement of the Illinois State School Code. This can be met by (1) submitting an official Illinois high school transcript stating the requirement has been met, or (2) successfully completing PSC 201, or (3) successfully passing a college administered test on the U.S. Constitution, Illinois Constitution, the proper use and display of the American flag, and the principles of American democratic government.
4. Requirement of 60 hours must be in courses numbered 100 or above for the degrees of associate in arts, associate in science, and associate in liberal studies.
5. Enrollment in Harper College during the semester in which graduation requirements are completed. Waiver of enrollment requirement may be made by the vice president of academic affairs where exceptional circumstances warrant.
6. Fulfillment of the degree group requirements.
7. A student must apply for graduation and pay the graduation fee of \$10.00. Notification of the student's intent to graduate will be accepted in the Registrar's Office no later than one week after the midterm of the semester in which the student intends to graduate. Students are encouraged to complete their petition for graduation when registering for the semester in which their graduation requirements will be fulfilled.
8. In addition to the above requirements, students enrolled in specific career programs will fulfill the requirements outlined in the programs. Any changes in program requirements necessitated by licensing and/or accrediting agencies must be observed by students who are already admitted and in process in their programs.

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**GENERAL EDUCATION REQUIREMENTS**

	Associate in Arts	Associate in Science	Associate in Applied Science	Associate in Liberal Studies <sup>1</sup>
I. COMMUNICATION SKILLS ENG 101, ENG 102, ENG 201, ENG 220	6 hours	6 hours	6 hours <sup>2</sup>	
II. SOCIAL SCIENCES anthropology, economics, geography, history, political science, psych- ology, sociology	6 hours	6 hours	6 hours	
III. SCIENCE OR MATHEMATICS astronomy, biology, chemistry, engineering <sup>3</sup> , geology, mathematics, physical science, physics	8 hours	20 hours	6 hours <sup>4</sup>	
IV. HUMANITIES art, foreign language, humanities, literature, music, philosophy, fine arts, SPE 107, SPE 111, SPE 212	6 hours	6 hours	3 hours	
V. Twelve hours to be taken in at least two of the following areas: communications <sup>5</sup> , social sciences, science or mathematics, humanities	12 hours			
VI. Any 60 hours of college courses at the 100 level or above, including a minimum of nine hours in Liberal Studies Seminars from at least three divisions				60 hours
<b>Total General Education Requirements</b>	<b>38 hours</b>	<b>38 hours</b>	<b>21 hours</b>	<b>60 hours</b>

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<sup>1</sup>Contractual agreement required for A.L.S. degree.

<sup>2</sup>The following courses may be used to satisfy this requirement if a part of the approved career program: ENG 099, ENG 103, ENG 130, JNM 130, JNM 131, JNM 133.

<sup>3</sup>Courses in engineering may apply to the general education requirements in Group III in the Associate in Science and Associate in Applied Science degrees.

<sup>4</sup>Students majoring in a career program may count courses in their major toward fulfillment of this requirement.

<sup>5</sup>In addition to the listed courses in Group I, the following can be used to fulfill the Group V requirement: SPE 101, SPE 102, SPE 205 and RDG 104.



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## GENERAL STUDIES CERTIFICATE REQUIREMENTS

Students enrolled in Continuing Education offerings carrying General Studies credit can apply their course work to a General Studies certificate. Such a certificate is meant to recognize those who diligently pursue a sequence of Continuing Education offerings.

Requirements for the certificate in general studies are as follows:

1. Successful completion of nine General Studies credit hours.
2. A grade of "P" (Pass) indicates successful completion of a course for purpose of granting credit. A grade "W" indicates that the class has not yet been satisfactorily completed.
3. Course/seminars taken at other institutions are not applicable to a general studies certificate.

A \$10.00 non-refundable fee will be charged to those who wish a certificate upon completion of the Certificate in General Studies program. This fee is payable at the time when the certificate is applied for. Anyone who wishes to have his past continuing education work included for the Certificate in General Studies may do so by applying to the Lifelong Learning Division. Anyone who registers for a Continuing Education offering automatically enters the Certificate in General Studies program.

Check the current college course schedule for a list of those offerings available for general studies credit.

### Statement of Completion

Students enrolled in any Continuing Education offering may be awarded a Statement of Completion for successfully completing the offering. For Continuing Education courses satisfactory completion is evidenced by a grade of "P" (Pass). The Statement of Completion must be applied for in the office of the division in which the offering is scheduled.



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## **ASSOCIATE IN LIBERAL STUDIES PROGRAM**

The Associate in Liberal Studies (ALS degree program) is an attempt by Harper College to provide a non-traditional and flexible alternative to existing degree programs.

The nature of the ALS program recognizes that learning can take place anywhere and need not be restricted to college classrooms. The major emphasis of the program is to allow the student, with the assistance of a faculty advisor, to develop a program of study that is unique for him. This program is free from traditional requirements and may consist of any valid learning experience on or off campus that applies to the student's goals.

Students who are enrolled in the ALS program can apply for credit for life experience. Credit can be granted on the basis of an assessment of a portfolio that documents and describes adult college level skills and knowledge.

To receive an Associate in Liberal Studies degree, a student must complete all of the requirements and learning experiences identified on his learning contract. This contract must contain nine (9) hours of liberal studies seminar credit to be taken from three different divisions of the college. In addition, the contract must contain the equivalent of 60 credit hours of work with a minimum 2.0 grade point average.

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## CAREER PROGRAMS

Harper College offers the following career/vocational programs. Both associate degree and certificate programs are offered except where indicated.

Accounting Aide	Journalism <sup>2</sup>
Accounting Clerk <sup>1</sup>	Legal Secretary
Accounting—Payroll <sup>1</sup>	Legal Technology <sup>5</sup>
Agricultural Marketing— Commodity Futures <sup>6</sup>	Library Technical Assistant <sup>4</sup>
Architectural Technology	Machinist <sup>1</sup>
Baking <sup>1</sup>	Marketing Mid-Management: General Marketing option <sup>2</sup> Supermarket Management option
Banking, Finance and Credit: Banking option Savings & Loan option	Material Management
Brokers License Certification <sup>1</sup>	Mechanical Drafting <sup>1</sup>
Building Codes and Enforcement <sup>1</sup>	Mechanical Engineering Technology: Mechanical Engineering option Production Engineering option
Business Machine Repair Technology <sup>6</sup>	Medical Laboratory Technician <sup>2, 5</sup>
Certified Professional Secretary <sup>1</sup>	Medical Office Assistant <sup>2, 5</sup>
Child Development	Medical Record Technology <sup>6</sup>
Clerical <sup>1</sup>	Medical Transcriptionist <sup>1, 5</sup>
Clerk-Typist <sup>1</sup>	Numerical Control Technician <sup>1</sup>
Cooking <sup>1</sup>	Nursing <sup>5</sup>
Criminal Justice	Operating Room Technician <sup>1, 5</sup>
Data Processing—Clerical <sup>1</sup>	Park and Grounds Operation Management
Data Processing—Computer Operator <sup>1</sup>	Physical Therapist Assistant <sup>6</sup>
Data Processing Technology	Plant Maintenance <sup>6</sup>
Dental Hygiene <sup>2, 5</sup>	Production Welding <sup>1</sup>
Dental Laboratory Technology <sup>3</sup>	Public Administration
Dietetic Technician <sup>2, 5</sup>	Real Estate
Electronics Technology	Refrigeration and Air Conditioning Refrigeration Service <sup>1</sup>
Executive Secretarial Development	Residential Comfort Systems <sup>1</sup>
Fashion Design: <sup>5</sup> Design Merchandising option <sup>2</sup>	Respiratory Care <sup>3</sup>
Fire Science Technology	Retail Merchandising <sup>1</sup>
Food Service Management	Stenographer <sup>1</sup>
General Office Assistant <sup>1</sup>	Supervisory and Administrative Management
Geriatric/Home Health Care Aide <sup>1</sup>	Teacher Aide <sup>1</sup>
Heating Service <sup>1</sup>	Vending Machine Repair <sup>1</sup>
Horticulture	Word Processing <sup>1</sup>
Industrial and Retail Security <sup>1</sup>	X-Ray Technology <sup>3</sup>
Industrial Sales Management and Development <sup>1</sup>	
Interior Design <sup>2, 5</sup>	

(see footnotes on the next page.)

<sup>1</sup>Certificate program only.

<sup>2</sup>Associate degree program only.

<sup>3</sup>This program is offered by Triton College through cooperative agreement. Contact the Admissions Office for details.

<sup>4</sup>This program is offered by the College of DuPage through cooperative agreement. Contact the Admissions Office for details.

<sup>5</sup>Refer to page 21 for admission information.

<sup>6</sup>This program is offered by Oakton Community College through cooperative agreement. Contact the Admissions Office for details.

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## **TRANSFER PROGRAMS**

An important role of a community college is to provide programs of study allowing students to complete requirements for the first two years of a baccalaureate degree. Harper defines these programs as transfer programs.

Practically every senior college and university has general education requirements for graduation. These include courses in English, the humanities, social science, and science and mathematics. Students are encouraged to consult with a Harper College student development faculty member and the catalog of the senior college or university where they expect to transfer for the most appropriate courses to take while at Harper.

Students planning to pursue a four-year baccalaureate program but not sure of their area of specialization, are advised to pursue the associate in arts or associate in science degree course requirements. These programs basically meet the two-year requirements of most institutions; they do not, however, offer the opportunity to begin work in an area of specialization.

Major fields of study include: Architecture, Business Administration, Education, Engineering, Fine Arts, Humanities, Liberal Arts, Mathematics, Medicine, Science, and Social Sciences.

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**ASSOCIATE DEGREE CURRICULA**


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**ACCOUNTING AIDE**

Accounting Aide is a two-year career program leading to an associate in applied science degree. The curriculum includes the study of accounting theory and practice, partnership and corporation accounting, and cost accounting. The program is designed to prepare students for employment as junior accountants in business, industry, and government.

**First Year**


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FIRST SEMESTER		SECOND SEMESTER	
English <sup>1</sup> .....	3	ENG 130 Business Writing I <sup>1</sup> .....	3
Mathematics <sup>2</sup> .....	3	SPE 101 Fundamentals of Speech Communication .....	3
ACC 101 Accounting I .....	3	DPR 101 Introduction to Data Processing .....	3
MGT 111 Introduction to Business Organization .....	3	ACC 102 Accounting II .....	3
SEC 131 Business Machines .....	2	ECO 200 Introduction to Economics .....	3
	<u>14</u>		<u>3</u>
			15

**Second Year**


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FIRST SEMESTER		SECOND SEMESTER	
ACC 155 Tax and Payroll Accounting .....	4	ACC 202 Intermediate Accounting II .....	3
ACC 201 Intermediate Accounting I .....	3	ACC 203 Introductory Cost Accounting .....	3
ACC 211 Business Law I .....	3	MGT 218 Introduction to Finance .....	3
PSY 101 Introduction to Psychology .....	3	MGT 270 Principles of Management .....	3
Humanities elective .....	3	PSY 145 Psychology in Business and Industry .....	3
	<u>3</u>		<u>3</u>
	16		15

<sup>1</sup>Students may elect ENG 099, ENG 101, or ENG 102, depending on their test scores and advice of a student development faculty member. ENG 130 may be taken as the second English course.

<sup>2</sup>Students may elect any mathematics course offered depending on their test scores and advice of a student development faculty member; however, only MTH 095 or higher will satisfy this requirement.

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**AIR CONDITIONING**

See: Refrigeration and Air Conditioning

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## ARCHITECTURE

A student completing the following program should be eligible, on a subject matter basis, for junior standing in schools of architecture to which he transfers. It should be noted that many schools of architecture require five or even six years of study for the degree of bachelor of architecture. The student should realize that three or even four years of study in addition to the Harper program will be required.

During his first semester at Harper, the student is advised to consult the school of architecture at the institution to which he desires to transfer. This will assure minimum problems in the transfer of credits.

The minimum requirements for enrollment in the Architecture program are three years of high school mathematics consisting of algebra, geometry, and trigonometry. In addition, a year of high school physics and above average class standing are preferred.

### First Year

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FIRST SEMESTER	SECOND SEMESTER
ARC 101 Basic Design I ..... 3	ARC 102 Basic Design II ..... 3
ARC 205 Architectural History I ..... 3	ARC 206 Architectural History II ..... 3
ART 110 Drawing I ..... 3	ART 111 Drawing II ..... 3
ENG 101 Composition ..... 3	ENG 102 Composition ..... 3
MTH 105 Analytic Geometry ..... <u>4</u>	MTH 201 Calculus I ..... <u>5</u>
16	17

### Second Year

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FIRST SEMESTER	SECOND SEMESTER
ARC 201 Design I ..... 4	ARC 202 Design II ..... 4
ATE 105 Computer Math for Architectural Tech. I ..... 3	PHY 122 Introductory Physics II ..... 5
PHY 121 Introductory Physics I ... 5	SOC 205 Social Problems ..... 3
EGR 150 Analytical Mechanics (Statics) ..... 3	Elective <sup>1</sup> ..... <u>3</u>
SOC 101 Introduction to Sociology ..... <u>3</u>	15
18	

<sup>1</sup>EGR 212, social science or humanities course.

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## ARCHITECTURAL TECHNOLOGY

Architectural Technology is a two-year technical career program leading to an associate in applied science degree. Curriculum emphasis is on architecture, including solar energy and conservation, but courses in communication skills, social sciences, and humanities are also included. Graduates from this curriculum may be qualified for positions as architectural aide, engineering aide in building construction, building materials and equipment salesman, specification writer, and ancillary professional services.

### First Year

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FIRST SEMESTER	SECOND SEMESTER
ATE 101 Introduction to Architectural Tech. I . . . . . 4	ATE 102 Introduction to Architectural Tech. II . . . . . 4
ATE 103 Building Materials Technology I . . . . . 4	ATE 104 Building Materials Technology II . . . . . 4
ATE 105 Computer Math for Architectural Tech. I <sup>1</sup> . . . . . 3	ATE 106 Computer Math for Architectural Tech. II <sup>1</sup> . . . . . 3
ENG 101 Composition <sup>2</sup> . . . . . 3	ENG 102 Composition <sup>2</sup> . . . . . 3
Social Science elective . . . . . <u>3</u>	Social Science elective . . . . . <u>3</u>
17	17

### Second Year

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FIRST SEMESTER	SECOND SEMESTER
ATE 201 Comprehensive Building Project I . . . . . 4	ATE 202 Comprehensive Building Project II . . . . . 4
ATE 203 Construction Problems I . . . . . 4	ATE 204 Construction Problems II . . . . . 4
ATE 207 Behavior of Architectural Materials I . . . . . 3	ATE 208 Behavior of Architectural Materials II . . . . . 3
Humanities elective <sup>3</sup> . . . . . <u>3</u>	Technical elective <sup>4</sup> . . . . . <u>3</u>
14	14

<sup>1</sup>Students in this program may count this course toward fulfillment of their mathematics requirement.

<sup>2</sup>ENG 099, ENG 103 or ENG 130 may be used, under certain conditions, to satisfy this requirement.

<sup>3</sup>Recommended elective: ART 110, MUS 103, MUS 104, PHI 105, or any literature course.

<sup>4</sup>Technical elective selected from the following: ARC 205, ARC 206, ATE 205, ATE 206, ATE 210, ATE 221, ATE 222.

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**ART**

The art curriculum is designed to provide the transfer student with a program equivalent to the first two years of most four-year college programs. Students following this curriculum can obtain an associate degree and transfer into most four-year institutions without loss of time or credit.

In order to serve the differing interests and needs of the total student body, art courses with prerequisites may be taken without the prerequisites for humanities elective credit by non art major students with permission of the instructor. Courses without prerequisites are open for enrollment to all students.

**First Year**


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**FIRST SEMESTER**

ART 100 Art Seminar <sup>1</sup> .....	1
ART 105 Introduction to Arts .....	3
ART 110 Drawing I .....	3
ART 121 Design I .....	3
Mathematics or Science elective <sup>2</sup> .....	3-4
ENG 101 Composition .....	<u>3</u>
	16-17

**SECOND SEMESTER**

ART 100 Art Seminar <sup>1</sup> .....	1
ART 111 Drawing II .....	3
ART 122 Design II .....	3
FNA 111 History of Art I .....	3
Mathematics or Science elective <sup>2</sup> .....	3-4
ENG 102 Composition .....	<u>3</u>
	16-17

**Second Year**


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**FIRST SEMESTER**

FNA 112 History of Art II .....	3
Studio electives .....	6-8
Social Science elective .....	3
Elective <sup>3</sup> .....	<u>3</u>
	15-17

**SECOND SEMESTER**

FNA 113 History of Art III .....	3
Studio electives .....	9-11
Social Science elective .....	<u>3</u>
	15-17

<sup>1</sup>ART 100 may be repeated to 2 credit hours.

<sup>2</sup>Mathematics or Science elective may be taken two times for 4 credit hours each, equalling the 8 credit hours minimum requirement; or may be taken three times for 3 credit hours each, exceeding the minimum requirement by 1 credit hour.

<sup>3</sup>Elective: communication, mathematics or social science.



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**BANKING, FINANCE AND CREDIT**

A two-year program leading to an associate in applied science degree in Banking, Finance and Credit, emphasizing either the banking or the savings and loan industry. The program is designed for those currently employed in, or seeking employment in banks or savings and loan associations. The curriculum emphasizes developing competencies necessary for middle level management and lending positions within the financial industry.

**First Year**


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**FIRST SEMESTER (Both options)**

BFC 101 Principles of Financial Institution Operations .....	3
BFC 115 Savings Account Administration .....	3
MGT 111 Introduction to Business Organization .....	3
MGT 150 Business Math .....	3
ENG 101 Composition .....	<u>3</u>
	15

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**SECOND SEMESTER  
(Banking option)**

ACC 101 Accounting I .....	3
ACC 211 Business Law I .....	3
ECO 115 Consumer Economics ...	3
SPE 101 Fundamentals of Speech Communication .....	3
SPE 115 Interviewing .....	1
Banking elective <sup>1</sup> .....	<u>3</u>
	16

**SECOND SEMESTER  
(Savings and Loan option)**

ACC 101 Accounting I .....	3
ECO 115 Consumer Economics ...	3
RES 120 Principles of Real Estate .....	2
SPE 101 Fundamentals of Speech Communication .....	3
SPE 115 Interviewing .....	1
Savings and Loan elective <sup>2</sup> .....	<u>3</u>
	15

(see footnotes on next page.)

## Second Year

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### FIRST SEMESTER (Banking option)

ACC 102 Accounting II .....	3
ECO 200 Introduction to Economics .....	3
ENG 130 Business Writing I .....	3
MGT 218 Principles of Finance ....	3
Banking elective <sup>1</sup> .....	<u>3</u>
	15

### FIRST SEMESTER (Savings and Loan option)

ACC 102 Accounting II .....	3
BFC 212 Home Mortgage Lending .	3
ECO 200 Introduction to Economics .....	3
ENG 130 Business Writing I .....	3
MGT 218 Principles of Finance ....	<u>3</u>
	15

### SECOND SEMESTER (Banking option)

BFC 215 Analyzing Financial Statements .....	3
BFC 219 Consumer Credit or	
BFC 229 Commercial Lending .....	3
ECO 210 Money and Banking .....	3
Humanities elective .....	3
Banking elective <sup>1</sup> .....	<u>3</u>
	15

### SECOND SEMESTER (Savings and Loan option)

BFC 215 Analyzing Financial Statements .....	3
BFC 219 Consumer Credit or	
RES 123 Real Estate Law .....	3
ECO 210 Money and Banking .....	3
Humanities elective .....	3
Savings and Loan elective <sup>2</sup> .....	<u>3</u>
	15

<sup>1</sup>Banking electives (to be selected with approval of coordinator): ACC 101, ACC 102, ACC 211, ACC 212, ATE 209, BFC 102, BFC 110, BFC 117, BFC 200, BFC 211, BFC 212, BFC 213, BFC 216, BFC 217, BFC 218, BFC 219, BFC 220, BFC 229, DPR 101, ECO 201, ECO 202, MGT 160, MGT 225, MGT 265, MGT 270, PSY 101, PSY 145, RES 122, RES 123, RES 124, RES 232, SEC 131, SEC 236.

<sup>2</sup>Savings and Loan electives (to be selected with approval of coordinator): ACC 101, ACC 102, ACC 211, ACC 212, BFC 102, BFC 110, BFC 117, BFC 200, BFC 217, BFC 218, BFC 219, DPR 101, ECO 201, ECO 202, MGT 160, MGT 225, MGT 265, MGT 270, PSY 101, PSY 145, RES 122, RES 123, RES 124, RES 232, SEC 131, SEC 236.

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**BUSINESS ADMINISTRATION**

Though subject to variance among colleges and universities, the following curriculum reflects consensus among most schools insofar as a recommended program for business transfer students is concerned.

**First Year**


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FIRST SEMESTER	SECOND SEMESTER
ENG 101 Composition ..... 3	ENG 102 Composition ..... 3
MGT 111 Introduction to Business Organization ..... 3	ACC 101 Accounting I ..... 3
Science elective ..... 3-4	Science elective ..... 3-4
Mathematics elective <sup>1</sup> ..... 3	DPR 101 Introduction to Data Processing ..... 3
SPE 101 Fundamentals of Speech Communication ..... <u>3</u>	Mathematics elective <sup>1</sup> ..... <u>3-4</u>
	15-17
	15-16

**Second Year**


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FIRST SEMESTER	SECOND SEMESTER
ACC 102 Accounting II ..... 3	ECO 202 Principles of Economics II ..... 3
ACC 211 Business Law I ..... 3	MGT 225 Applied General Statistics ..... 3
ECO 201 Principles of Economics I ..... 3	ACC 203 Introductory Cost Accounting ..... 3
Humanities elective ..... 3	ACC 212 Business Law II or Social Science elective <sup>2</sup> ..... 3
Social Science elective ..... <u>3</u>	Humanities elective ..... <u>3</u>
15	15

<sup>1</sup>Elective to be selected from MTH 103, MTH 124 or MTH 134.

<sup>2</sup>ACC 212 specifically recommended for accounting majors. Social Science electives should be selected from PSY 101, PSY 145 or SOC 101.

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## CHILD DEVELOPMENT

Child Development is a two-year career program leading to an associate in applied science degree. The curriculum is designed to provide students with the requisite skills and theoretical knowledge to work in a variety of child care facilities; preschool and daycare centers, public school classrooms (as aides), special education programs and related settings in the expanding area of child-related professions.

### First Year

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#### FIRST SEMESTER

ENG 101 Composition .....	3
CCA 101 Introduction to Child Development Careers .....	3
CCA 102 Child Development I ....	3
PSY 101 Introduction to Psychology .....	3
Humanities elective .....	<u>3</u>
	15

#### SECOND SEMESTER

ENG 102 Composition .....	3
SOC 101 Introduction to Sociology .....	3
EDU 211 Educational Psychology .....	3
CCA 103 Child Development II ...	3
Elective <sup>1</sup> .....	<u>3</u>
	15

### Second Year

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#### FIRST SEMESTER

CCA 209 Language Arts for the Young Child .....	3
CCA 214 Principles of Preschool Education <sup>2</sup> or CCA 218 Assisting the Severely Handicapped .....	4
CCA 215 Children's Laboratory ...	2
CCA 225 Mental Health in Child Development .....	3
HSC 220 Health, Nutrition and Safety .....	3
Elective <sup>1</sup> .....	<u>3</u>
	18

#### SECOND SEMESTER

CCA 210 Creative Activities for Young Children .....	3
CCA 219 Psychology of Exceptional Children or CCA 221 Workshop in Early Childhood Education .....	3
CCA 220 Child Development Practicum Internship .....	6
CCA 252 Child-Family- Community .....	3
Elective <sup>1</sup> .....	<u>1</u>
	16

<sup>1</sup>Electives may include courses useful in child development such as art, music, speech, physical education, etc.

<sup>2</sup>Students interested in preschool teaching will take CCA 214 and CCA 221. Students interested in work with exceptional children will take CCA 218 and CCA 219.

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## CRIMINAL JUSTICE

Criminal Justice is a two-year career program leading to an associate in applied science degree. It is designed to serve the needs of men and women in criminal justice organizations at the local, state and federal levels, and to prepare others to enter this service. Opportunities include positions in crime prevention, probation, correction, court records, communications, and general police and security work. Options are available for those wishing to continue in any of these special areas or for those who plan to earn a baccalaureate degree at a four-year college or university.

Certificate options are available in Criminal Justice and in Industrial and Retail Security.

Students earning an associate in applied science degree in criminal justice are required to complete a total of 60 semester hours of work. Courses must satisfy both the college and the program's minimum requirements.

### Required Core Courses:

CRJ 101 Introduction to Criminal Justice <sup>1</sup> .....	3
CRJ 104 Introduction to Corrections .....	3
CRJ 201 Criminal Law I <sup>1</sup> .....	3
CRJ 202 Criminal Law II .....	3
CRJ 205 Juvenile Delinquency .....	3
CRJ 209 Police Public-Community Relations .....	3
CRJ 210 Introduction to Criminology <sup>1</sup> .....	3

### Required General Education Courses:

SPE 101 Fundamentals of Speech Communication .....	3
English <sup>2</sup> .....	3
English elective .....	3
PSC 201 Contemporary American Politics or	
PSC 202 Suburban, Urban and State Politics .....	3
PSY 101 Introduction to Psychology .....	3
PSY 217 Adolescent Psychology .....	3
SOC 101 Introduction to Sociology .....	3
SOC 205 Social Problems .....	3
Humanities elective .....	3
Electives <sup>3</sup> .....	12

Specialized Study Areas: Depending on the student's career needs, he may choose courses from the following specialized study areas.

### Basic Law Enforcement

CRJ 105 Criminal Courts of the U.S. ....	3
CRJ 110 Police Operations .....	3
CRJ 116 Introduction to Forensics .....	3
CRJ 211 Criminal Investigation .....	3
CRJ 216 Investigative Process .....	3

(see footnotes on next page.)

**Advanced Law Enforcement**

CRJ 102 Police Administration and Organization .....	3
CRJ 105 Criminal Courts of the U.S. ....	3
CRJ 208 Police Supervision .....	3
CRJ 212 Traffic Administration .....	3
CRJ 213 Crime Prevention .....	3
CRJ 216 Investigative Process .....	3
CRJ 226 Case Management .....	3

**Corrections**

CRJ 105 Criminal Courts of the U.S. ....	3
CRJ 210 Introduction to Criminology .....	3
CRJ 215 Alternatives to Confinement .....	3

**Industrial Security**

CRJ 213 Crime Prevention .....	3
CRJ 250 Industrial Security Administration .....	3
CRJ 252 Industrial Fire Protection, Disaster Control .....	3
CRJ 253 Safety Management .....	3

<sup>1</sup>Students may take CRJ 203, CRJ 213, or CRJ 215, with approval of coordinator.

<sup>2</sup>Students may take ENG 099 or ENG 101, depending upon English assessment.

<sup>3</sup>In determining electives, the student should consult with the coordinator.

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## DATA PROCESSING TECHNOLOGY

The Data Processing career program is a technical curriculum to train students for various positions in the field of data processing. The student will take courses in mathematics, business, data processing, and general education. Graduates of the program may find employment as computer programmers, systems analysts, and computer operators.

### First Year

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FIRST SEMESTER	SECOND SEMESTER
DPR 101 Introduction to Data Processing ..... 3	DPR 108 Computer Programming–COBOL ..... 5
DPR 106 Computer Logic and Programming Technology ..... 3	DPR 203 Systems Analysis and Design I ..... 3
ENG 101 Composition ..... 3	ACC 101 Accounting I ..... 3
Social Science elective ..... 3	MGT 111 Introduction to Business Organization ..... 3
MTH 102 Intermediate Algebra ..... <u>4</u>	ENG 103 Report Writing ..... <u>3</u>
	17
16	

### Second Year

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FIRST SEMESTER	SECOND SEMESTER
DPR 110 Computer Programming– Basic Assembler ..... 5	ECO 200 Introduction to Economics ..... 3
DPR 204 Advanced Systems Analysis and Design ..... 3	DPR 202 Programming Systems ... 3
ACC 102 Accounting II ..... 3	DPR 208 Computer Programming– Advanced COBOL or
Humanities elective ..... <u>3</u>	DPR 210 Computer Programming– Advanced Assembler ..... 4
	14
	DPR 230 Internship and/or Case Study ..... 3
	Data Processing elective <sup>1</sup> ..... <u>3-4</u>
	16-17

<sup>1</sup>Elective: ACC 203, DPR 140, DPR 142, DPR 150, DPR 208, DPR 210, DPR 240, or DPR 250.

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## DENTAL HYGIENE

Dental Hygiene is a two-year career program, leading to an associate in science degree in dental hygiene. The program is designed to train the hygienist and educate the person. Pre-admission requirements include high school graduation with a minimum of high school mathematics, chemistry and biological science. Candidates must score satisfactorily on the National Dental Hygiene aptitude test and have a personal interview with a member of the dental hygiene faculty. Graduates, after passing state board examinations and achieving licensure, are qualified for private practice in dental offices, hospitals, health agencies, government, and the armed services.

### First Year

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FIRST SEMESTER	SECOND SEMESTER
BIO 160 Human Anatomy ..... 4	BIO 130 Microbiology ..... 4
CHM 100 Chemistry for the Health Sciences ..... 4	BIO 161 Human Physiology ..... 4
DHY 100 Pre-Clinical and Orientation ..... 4	DHY 101 Clinical Dental Hygiene I ..... 5
DHY 161 Dental Anatomy ..... 3	DHY 130 Nutrition ..... 1
DHY 111 Dental Radiology ..... <u>3</u>	DHY 190 Oral Pathology ..... 3
18	DHY 199 Introductory Periodontology ..... <u>1</u>
	18

### Summer Session

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Humanities elective ..... 3

### Second Year

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FIRST SEMESTER	SECOND SEMESTER
DHY 200 Advanced Periodontology ..... 1	DHY 201 Seminar ..... 2
DHY 220 Community Dentistry I .. 3	DHY 221 Community Dentistry II . 3
DHY 240 Dental Pharmacology and Anaesthesia ..... 1	DHY 251 Clinical Dental Hygiene III ..... 4
DHY 250 Clinical Dental Hygiene II ..... 4	DHY 291 Dental Assisting ..... 2
DHY 280 Dental Materials and Dental Assisting ..... 3	PSY 101 Introduction to Psychology ..... 3
ENG 101 Composition ..... 3	SPE 101 Fundamentals of Speech Communication ..... <u>3</u>
SOC 101 Introduction to Sociology ..... <u>3</u>	17
18	



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**DIETETIC TECHNICIAN**

Dietetic Technician is a two-year career program leading to an associate degree in applied science. This program with its major emphasis on nutritional care prepares a student for employment in a hospital, nursing home or in community feeding programs under the direct or general supervision of registered dietitians. Graduates are eligible to join the American Dietetic Association.

**First Year**


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FIRST SEMESTER	SECOND SEMESTER
English elective <sup>1</sup> ..... 3	BIO 136 Introduction to Human Disease (3) or
BIO 135 Introduction to Human Anatomy and Physiology or	BIO 161 Human Physiology (4) .. 3-4
BIO 160 Human Anatomy ..... 4	DIT 102 Advanced Nutrition ..... 3
DIT 100 Introduction to the Dietetic Technician Program ..... 3	DIT 110 Principles of Food Preparation ..... 3
DIT 101 Basic Nutrition ..... 3	DIT 150 Dietetic Clinical Laboratory I ..... 3
FSM 114 Food Standards and Sanitation ..... <u>3</u>	PSY 101 Introduction to Psychology ..... <u>3</u>
16	15-16

**Second Year**


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FIRST SEMESTER	SECOND SEMESTER
DIT 200 Dietetic Clinical Laboratory II ..... 4	English elective <sup>1</sup> ..... 3
DIT 201 Nutritional Services in Institutions ..... 3	DIT 202 Nutrition Care Seminar ..... 2
FSM 212 Food Service Supervision ..... 4	DIT 203 Dietetic Seminar ..... 1
EDU 211 Educational Psychology .. 3	DIT 250 Dietetic Clinical Laboratory III ..... 4
SOC 101 Introduction to Sociology ..... <u>3</u>	Humanities elective <sup>2</sup> ..... 3
17	SPE 101 Fundamentals of Speech Communication ..... <u>3</u>
	16

<sup>1</sup>Students may elect ENG 099, ENG 101, ENG 102, or ENG 103 depending on their English assessment and the advice of a student development faculty member.

<sup>2</sup>PHI 180 recommended.

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## ELECTRONICS TECHNOLOGY

Electronics Technology is a two-year technical program leading to an associate in applied science degree. It is designed to prepare students for the field of electronics and associated industries. The curriculum offers courses in electronics, circuit analysis, mathematics, physics, and general education, with laboratory emphasis placed on equipment familiarization and use.

Graduates may find employment as electronic engineering technicians, industrial technicians, electronic/electrical draftsmen, customer engineers, technical writers, and research laboratory technicians.

### First Year

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FIRST SEMESTER	SECOND SEMESTER
ELT 101 Circuits I ..... 4	ELT 102 Circuits II ..... 4
ELT 105 Electro-Mechanical Drafting ..... 3	ELT 111 Electronics I, Resistive .... 3
ELT 110 Introductory Electronics ..... 2	ELT 210 Computer Programming ..... 3
MTH 106 Mathematics I ..... 5	MTH 107 Mathematics II ..... 5
ENG 101 Composition ..... <u>3</u>	Humanities elective <sup>1</sup> ..... <u>3</u>
17	18

### Second Year

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FIRST SEMESTER	SECOND SEMESTER
ELT 103 Circuits III, Networks ..... 4	ELT 204 Electronics III, Advanced Electronics ..... 4
ELT 203 Electronics II, Pulse ..... 4	Electronics elective <sup>3</sup> ..... 4
MTH 206 Mathematics III ..... 3	Social Science elective <sup>2</sup> ..... 3
PHY 101 Technical Physics I ..... 4	ENG 103 Report Writing ..... 3
Social Science elective <sup>2</sup> ..... <u>3</u>	PHY 102 Technical Physics II ..... <u>4</u>
18	18

<sup>1</sup>Any 3 credit hour course in the humanities area will meet this requirement.

<sup>2</sup>Social Science electives: ANT 201, ECO 201, GEG 101, HST 111, HST 112, HST 141, PSC 201, PSY 101, PSY 145, SOC 101.

<sup>3</sup>Electronics elective: ELT 205, ELT 206, ELT 207, ELT 215.

**ENGINEERING**

A student completing the following engineering transfer program at Harper College would be eligible, on a subject matter basis, for junior standing in any engineering school in Illinois to which he transfers. The student would receive credit toward graduation in these subject matter areas and would be expected to complete graduation requirements within two-and-one-half additional years of study. A large number of students enrolling in engineering schools throughout the country as freshmen commonly take four-and-one-half years to complete the requirements for a degree. Thus the transfer student completing this program is not placed at any comparative disadvantage.

If a student starts his study at Harper College, he is encouraged to complete two years of study, preferably completing all courses outlined in this typical pre-engineering program, before seeking transfer to an engineering school. In certain curricula there are courses at the sophomore level which are prerequisite for further studies. Prerequisites required for junior standing may be offered during a summer period at the four-year institution, or special permission may be given to enroll simultaneously in two courses not ordinarily taken concurrently.

**First Year**

**FIRST SEMESTER**

EGR 100 Introduction to Engineering and Technology	.... 1
EGR 120 Engineering Graphics I	..... 3
ENG 101 Composition	..... 3
CHM 121 General Chemistry I <sup>1</sup>	... 4
MTH 105 Analytic Geometry	..... 4
Social Science elective	..... <u>3</u>
	18

**SECOND SEMESTER**

ENG 102 Composition	..... 3
CHM 122 General Chemistry II <sup>1</sup>	... 4
EGR 121 Engineering Graphics II	.. 3
EGR 150 Analytical Mechanics (Statics)	..... 3
MTH 201 Calculus I	..... <u>5</u>
	18

**Second Year**

**FIRST SEMESTER**

Social Science elective	..... 3
MTH 202 Calculus II	..... 5
PHY 201 General Physics I	..... 4
Humanities elective	..... <u>3</u>
	15

**SECOND SEMESTER**

MTH 212 Differential Equations	... 3
PHY 202 General Physics II	..... 4
EGR 211 Analytical Mechanics (Dynamics)	..... 3
Humanities elective	..... 3
Technical elective <sup>2</sup>	..... <u>3</u>
	16

(see footnotes on next page.)

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<sup>1</sup>CHM 131 and CHM 132 may be substituted where required for specialized curricula offered at four-year institutions.

<sup>2</sup>Technical elective selected from the following: EGR 212, EGR 215, MTH 165, MTH 203, MTH 208, MTH 215, and PHY 203. PHY 203 is required in many engineering curricula.

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**EXECUTIVE SECRETARIAL DEVELOPMENT**

Executive Secretarial Development is a two-year career program leading to an associate in applied science degree. The curriculum is designed to give the student experience in office practices, secretarial duties, and functions of office administration.

Graduates may be employed in any of a variety of organizations, including manufacturing firms, government agencies, schools and colleges, insurance companies, banks, and hospitals.

**First Year**


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**FIRST SEMESTER**

ENG 101 Composition	3
SEC 121 Elementary Typing <sup>1</sup> (2) or	
SEC 099 Typewriting Review <sup>1</sup> (1)	1-2
MGT 111 Introduction to Business Organization	3
SEC 131 Business Machines	2
SEC 125 Elementary Shorthand <sup>1,2</sup> (4) or	
SEC 140 Elementary Machine Shorthand <sup>1,2</sup> (4) or	
SEC 098 Review Shorthand <sup>1,2</sup> (2)	2-4
Mathematics elective <sup>3</sup>	3
	<u>14-17</u>

**SECOND SEMESTER**

ENG 130 Business Writing I	3
SEC 122 Intermediate Typing <sup>1</sup>	2
SEC 126 Intermediate Shorthand <sup>1,2</sup>	3
SEC 132 Executive Machine Transcription	2
SEC 236 Secretarial Procedures <sup>4</sup>	3
PSY 101 Introduction to Psychology	3
	<u>16</u>

**Second Year**


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**FIRST SEMESTER**

ACC 099 Business Recordkeeping or	
ACC 101 Accounting I	3
SEC 221 Advanced Typing <sup>1</sup>	2
SEC 225 Dictation and Transcription <sup>1,2</sup>	3
SEC 237 Secretarial Seminar and Internship I <sup>5</sup>	3
SPE 101 Fundamentals of Speech Communication	3
	<u>14</u>

**SECOND SEMESTER**

ACC 211 Business Law I	3
ECO 200 Introduction to Economics	3
Humanities elective	3
DPR 101 Introduction to Data Processing	3
SEC 238 Secretarial Seminar and Internship II <sup>5</sup>	3
	<u>15</u>

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<sup>1</sup>Placement into SEC 098, SEC 099, SEC 121, SEC 122, SEC 125, SEC 126, SEC 140, SEC 221, and SEC 225 contingent upon previous training and consent of instructor. Students who are placed in or elect both SEC 098 and SEC 099 will be required to complete an additional one hour elective course to meet the 60 semester hour requirement for graduation.

<sup>2</sup>Students will take ENG 101 concurrently with their first shorthand course.

<sup>3</sup>While students may take any mathematics course offered depending upon their test scores and the advice of a student development faculty member, MGT 150 is recommended.

<sup>4</sup>SEC 236 must be taken the semester prior to entering SEC 237.

<sup>5</sup>Enrollment restricted to students in the second year of the program with the consent of the instructor.

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**FASHION DESIGN**

Fashion Design is a two-year career program leading to an associate in applied science degree. The program is designed to train students in apparel design, flat pattern design, draping, fashion illustrating, and in professional design room practices of tailoring. Facilities will simulate the professional atmosphere of the fashion industry.

Graduates may find employment as couture fashion designers, mass production fashion designers, flat pattern makers, fashion illustrators and fashion coordinators.

Students interested in business related careers in fashion such as fashion merchandising, buying promotion, advertising, retailing, or window display, may elect the Fashion Merchandising option available in the sophomore year.

Close cooperation between the college and the fashion industry helps to ensure the type of training the fashion industry demands. Trips to manufacturers are included.

**First Year**

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**FIRST SEMESTER**

FAS 101 Flat Pattern Design and Draping I ..... 3

FAS 103 Apparel Design and Construction I ..... 3

FAS 105 Fashion Design Illustration I ..... 1

FAS 107 Textiles I ..... 1

FAS 109 Micro Environmental Design I ..... 2

English<sup>1</sup> ..... 3

Social Science elective ..... 3

**SECOND SEMESTER**

FAS 102 Flat Pattern Design and Draping II ..... 4

FAS 104 Apparel Design and Construction II ..... 4

FAS 106 Fashion Design Illustration II ..... 1

FAS 108 Textiles II ..... 1

FAS 110 Micro Environmental Design II ..... 2

English<sup>1</sup> ..... 3

15

16

(see footnotes on next page.)

## Second Year

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### FIRST SEMESTER (Design)

FAS 201 Advanced Flat Pattern Design and Draping I .....	4
FAS 203 Advanced Diversified Apparel Design I .....	4
FAS 205 Tailoring Techniques I ...	2
FAS 209 Advanced Fashion Illustration I .....	1
MKT 106 Merchandising of Furnishings and Softline Goods <sup>3</sup> .....	3
Social Science elective .....	<u>3</u>
	17

### FIRST SEMESTER (Merchandising option)

FAS 229 Promotion of Fashion .....	3
FAS 233 Fashion Seminar and Internship <sup>2</sup> .....	4
MKT 106 Merchandising of Furnishings and Softline Goods <sup>3</sup> .....	3
MKT 140 Salesmanship <sup>3</sup> .....	3
Humanities elective <sup>4</sup> .....	<u>3</u>
	16

## Second Year

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### SECOND SEMESTER (Design)

FAS 202 Advanced Flat Pattern Design and Draping II .....	4
FAS 204 Advanced Diversified Apparel Design II .....	4
FAS 206 Tailoring Techniques II ...	2
FAS 210 Advanced Fashion Illustration II .....	1
FAS 212 Design Communication ..	2
Humanities elective <sup>4</sup> .....	<u>3</u>
	16

### SECOND SEMESTER (Merchandising option)

FAS 230 Contemporary Living .....	3
FAS 240 Communication .....	3
MKT 250 Retailing <sup>3</sup> .....	3
MKT 251 Retail Merchandise Management <sup>3</sup> .....	3
Social Science elective <sup>5</sup> .....	<u>3</u>
	15

<sup>1</sup>Students may elect ENG 099, ENG 101 or ENG 102, depending on their test scores and advice of a student development faculty member.

<sup>2</sup>FAS 233 may be taken either fall or spring, depending on the availability of internship stations as determined by the coordinator. Scheduling of the electives may be adjusted accordingly.

<sup>3</sup>Special sections of these courses may be set aside for fashion students.

<sup>4</sup>ART 105 is recommended.

<sup>5</sup>HST 210, PSY 101, or SOC 101 are recommended.



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## FIRE SCIENCE TECHNOLOGY

Fire Science Technology is a two-year career program leading to an associate in applied science degree. This curriculum offers a broad education in the principles and practical applications of fire protection. It provides specialized training for in-service fire personnel and students who wish to enter the profession. Attractive career opportunities are available with industrial firms, governmental agencies, insurance companies, rating bureaus, municipal fire departments, fire training organizations, and fire equipment manufacturers.

### First Year

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FIRST SEMESTER	SECOND SEMESTER
ENG 101 Composition ..... 3	ENG 103 Report Writing ..... 3
PSY 101 Introduction to Psychology ..... 3	FIS 101 Municipal Fire Administration I ..... 3
Mathematics elective <sup>1</sup> ..... 3	FIS 122 Fire Inspection Principles ..... 3
FIS 112 Fire Alarm and Extinguishing Systems ..... 3	FIS 133 Hazardous Materials II ..... 3
FIS 132 Hazardous Materials I ..... <u>3</u>	SPE 101 Fundamentals of Speech Communication ..... <u>3</u>
15	15

### Second Year

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FIRST SEMESTER	SECOND SEMESTER
Social Science elective <sup>2</sup> ..... 3	FIS 245 Fire Causes and Investigation ..... 3
CHM 100 Chemistry for the Health Sciences ..... 4	FIS 252 Automatic Sprinkler Systems ..... 3
FIS 201 Municipal Fire Administration II ..... 3	FIS 262 Water Supply Analysis ..... 3
FIS 222 Fire Inspection Applications ..... 3	Physical Science elective <sup>2</sup> ..... 3
FIS 242 Fire Hydraulics ..... <u>3</u>	Humanities elective <sup>2</sup> ..... <u>3</u>
16	15

<sup>1</sup>Students may elect any mathematics course, MTH 095 or higher, depending upon their test scores and advice of a student development faculty member.

<sup>2</sup>Electives must be selected upon the advice of a student development faculty member or the coordinator.

<sup>3</sup>CHM 121 may be substituted if prerequisite is fulfilled.

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**FOOD SERVICE MANAGEMENT**

Food Service Management is a two-year career program leading to an associate in applied science degree. Emphasis is placed on the techniques and technology of the food service industry from a management point of view. Graduates will be qualified to assume positions as production supervisors, management trainees, and small unit managers. One-year certificate programs are offered in Baking and Cooking.

**First Year**


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**FIRST SEMESTER**

English <sup>1</sup> .....	3
FSM 111 Introduction to Food Service .....	2
FSM 112 Quantity Food Production or	
FSM 113 Quantity Food Service .....	4
FSM 114 Food Standards and Sanitation .....	3
MGT 150 Business Math .....	<u>3</u>
	15

**SECOND SEMESTER**

English <sup>1</sup> .....	3
MGT 111 Introduction to Business Organization or Food Service Management elective <sup>2</sup> .....	3-4
FSM 112 Quantity Food Production or	
FSM 113 Quantity Food Service .....	4
FSM 115 Menu Planning .....	2
ACC 099 Business Recordkeeping or	
ACC 101 Accounting I .....	<u>3</u>
	15-16

**Second Year**


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**FIRST SEMESTER**

PSY 101 Introduction to Psychology .....	3
Social Science elective .....	3
ENG 130 Business Writing I .....	3
FSM 211 Purchasing and Storage .....	3
FSM 212 Food Service Supervision .....	<u>4</u>
	16

**SECOND SEMESTER**

Humanities elective .....	3
SPE 101 Fundamentals of Speech Communication .....	3
FSM 213 Seminar and Internship .....	4
FSM 214 Cost Control .....	3
FSM 215 Restaurant Layout and Equipment or Food Service Management elective <sup>2</sup> .....	<u>3-4</u>
	16-17

<sup>1</sup>Students may elect ENG 099, ENG 101 or ENG 102, depending on their test scores and the advice of a student development faculty member.

<sup>2</sup>Food Service Management electives: FSM 130 or FSM 210.

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**HEALTH EDUCATION\***

The successful completion of the health education transfer program will enable the student to obtain an associate degree and to transfer with junior status to most four-year colleges and universities. To insure satisfactory transfer, the student is advised to investigate the institution to which the student plans to transfer for specific general education requirements.

**First Year**


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FIRST SEMESTER	SECOND SEMESTER
BIO 110 Principles of Biology ..... 4	BIO 140 General Zoology ..... 4
ENG 101 Composition ..... 3	ENG 102 Composition ..... 3
PED 203 Health ..... 2	Mathematics elective ..... 3
SPE 101 Fundamentals of Speech Communication ..... 3	PED 201 First Aid ..... 2
Social Science elective ..... 3	PED 205 Drugs in Our Culture ..... 2
Physical Education activity ..... <u>1</u>	Physical Education activity ..... <u>1</u>
16	15

**Second Year**


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FIRST SEMESTER	SECOND SEMESTER
BIO 160 Human Anatomy ..... 4	BIO 103 Man and Environment .... 3
PED 207 Human Sexuality ..... 2	BIO 161 Human Physiology ..... 4
PED 270 Community Health ..... 2	EDU 211 Educational Psychology ..... 3
PHI 180 Medical Ethics ..... 3	DIT 101 Basic Nutrition ..... 3
Social Science elective ..... 3	Humanities elective ..... <u>3</u>
Elective ..... <u>3</u>	16
17	

\*Subject to Illinois Board of Higher Education approval during fall, 1978.

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**HORTICULTURE**

Horticulture is a two-year program leading to an associate in applied science degree. This program prepares students for employment with nursery and garden centers, lawn and tree care companies, landscapers, greenhouse and plant propagating operations, landscape maintenance firms and horticultural equipment dealers.

**First Year**


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**FIRST SEMESTER**

PKM 100 Introduction to Park Management .....	1
PKM 110 Soil Science .....	4
PKM 140 Grounds Equipment and Shop Operation .....	4
BIO 120 General Botany .....	4
PED 201 First Aid .....	<u>2</u>
	15

**SECOND SEMESTER**

PKM 101 Ornamental Plants .....	4
PKM 102 Plant Diseases and Pests .....	4
PKM 111 Basic Horticultural Skills .....	4
Elective <sup>1</sup> .....	<u>3</u>
	15

**Summer Session<sup>2</sup>**


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PKM 150 Park Management Internship .....	5
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**Second Year**


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**FIRST SEMESTER**

PKM 210 Drainage and Irrigation .....	3
PKM 212 Turfgrass Science .....	4
PKM 214 Principles of Park Design and Construction .....	4
English <sup>3</sup> .....	3
Social Science elective .....	<u>3</u>
	17

**SECOND SEMESTER**

PKM 220 Arboriculture or PKM 240 Grounds Equipment Power Units .....	4
PKM 230 Contracts, Specifications, Estimating .....	3
English <sup>3</sup> .....	3
Humanities elective .....	3
Social Science elective .....	<u>3</u>
	16

<sup>1</sup>To be selected from PKM 242, MGT 111, MGT 150, or MGT 154.

<sup>2</sup>Recommended elective but not required.

<sup>3</sup>Students will take ENG 099, ENG 101 or ENG 102, depending upon their English assessment and the advice of the coordinator.

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**INTERIOR DESIGN**

Interior Design is a two-year career program leading to an associate in applied science degree. The curriculum is designed to prepare students for residential designer/sales positions in the retail home furnishings field.

**First Year<sup>1</sup>**


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**FIRST SEMESTER**

IND 101 Basic Interior Design I .....	5
IND 103 Furniture History .....	3
ART 121 Design I .....	3
English <sup>2</sup> .....	<u>3</u>
	14

**SECOND SEMESTER**

IND 102 Basic Interior Design II .....	5
ENG 130 Business Writing I .....	3
PSY 101 Introduction to Psychology .....	3
SPE 101 Fundamentals of Speech Communication .....	3
FNA 112 History of Art II .....	<u>3</u>
	17

**Second Year**


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**FIRST SEMESTER**

IND 201 Advanced Interior Design I .....	6
SOC 101 Introduction to Sociology .....	3
JNM 133 Feature Writing (3) or JNM 134 Media Adjuncts (4) ....	3-4
FNA 113 History of Art III .....	<u>3</u>
	15-16

**SECOND SEMESTER**

IND 202 Advanced Interior Design II .....	6
MKT 106 Merchandising of Furnishings and Softline Goods .....	2
MKT 140 Salesmanship .....	3
Elective .....	<u>3</u>
	14

<sup>1</sup>Periodic field trips to Chicago required in all semesters.

<sup>2</sup>Students will take ENG 099, ENG 101, or ENG 102, depending on their test scores and the advice of a student development faculty member.

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**JOURNALISM<sup>1</sup>**

Journalism is a two-year career program leading to an associate in applied science degree. The curriculum provides intensive study and practical training in contemporary journalism, including historic, sociologic and realistic situations. Graduates of the program are prepared for positions in newspapers; radio and television newsrooms; wire services; public relations and advertising agencies; and business, industrial, and consumer magazines.

**First Year**


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**FIRST SEMESTER<sup>1</sup>**

JNM 130 Fundamentals of Journalism .....	3
ENG 101 Composition .....	3
HST 111 The American Experience to 1877 .....	3
SPE 101 Fundamentals of Speech Communication .....	3
Science elective .....	<u>3-4</u>
	15-16

**SECOND SEMESTER**

JNM 131 News Reporting and Writing .....	3
JNM 133 Feature Writing .....	3
JNM 134 Media Adjuncts .....	4
HST 112 The American Experience Since 1877 .....	3
Humanities elective .....	<u>3</u>
	16

**Second Year**


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**FIRST SEMESTER**

JNM 234 Mass Communication ...	3
JNM 235 Copy Reading and News Editing .....	4
JNM 236 Radio and Television News .....	4
PSC 201 Contemporary American Politics .....	<u>3</u>
	14

**SECOND SEMESTER**

JNM 237 Externship Study .....	5
ECO 200 Introduction to Economics or	
ECO 201 Principles of Economics I .....	3
PSC 202 Suburban, Urban and State Politics or	
Social Science elective .....	3
General electives <sup>2</sup> .....	<u>5-6</u>
	16-17

<sup>1</sup>Students must type 40 wpm or take SEC 121.

<sup>2</sup>Courses in communications, humanities, mathematics, science, or social science are recommended.

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**LEGAL SECRETARY**

Legal Secretary is a two-year career program leading to the degree of associate in applied science for those interested in pursuing secretarial careers in law firms, government, law departments of business firms, and banks. The curriculum is designed to give the student experience in legal dictation and transcription, legal office procedures, background in legal terminology, and supervised on-the-job training in a legal office or department.

**First Year**


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**FIRST SEMESTER**

ENG 101 Composition .....	3
SEC 122 Intermediate Typing <sup>1</sup> .....	2
SEC 126 Intermediate Shorthand (Manual or Machine) <sup>1</sup> .....	3
SEC 236 Secretarial Procedures <sup>2</sup> .....	3
SPE 101 Fundamentals of Speech Communication .....	3
RES 120 Principles of Real Estate <sup>3</sup> .....	<u>2</u>
	16

**SECOND SEMESTER**

ENG 130 Business Writing I .....	3
SEC 132 Executive Machine Transcription .....	2
SEC 221 Advanced Typing <sup>1</sup> .....	2
SEC 225 Dictation and Transcription (Manual or Machine) <sup>1</sup> .....	3
SEC 234 Legal Office Procedures .....	3
ACC 099 Business Recordkeeping or	
ACC 101 Accounting I .....	<u>3</u>
	16

**Second Year**


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**FIRST SEMESTER**

PSC 201 Contemporary American Politics .....	3
SEC 235 Legal Dictation and Transcription .....	3
SEC 237 Secretarial Seminar and Internship I .....	3
ACC 211 Business Law I .....	3
Approved electives <sup>4</sup> .....	<u>2-3</u>
	14-15

**SECOND SEMESTER**

ECO 200 Introduction to Economics .....	3
ACC 212 Business Law II .....	3
SEC 238 Secretarial Seminar and Internship II .....	3
Humanities elective .....	3
Approved electives <sup>4</sup> .....	<u>2-3</u>
	14-15

<sup>1</sup>Placement in SEC 122, SEC 126, SEC 221 and SEC 225 is contingent upon previous training and consent of instructor.

<sup>2</sup>A special section of this course is offered for legal secretarial students during the fall semester. Students must enroll in this special section before taking SEC 237.

<sup>3</sup>RES 120 is offered each eight weeks. You may decide to take this course during the second half of a semester.

<sup>4</sup>These electives require the approval of the coordinator.

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## LEGAL TECHNOLOGY

Legal Technology is a two-year career program leading to an associate in applied science degree. The program is designed to prepare men and women as technically qualified assistants to a lawyer. Under the supervision of a lawyer, the legal technician may perform such functions as investigation, detail work with regard to probate matters, preparation of tax forms and returns, searching public and court records, office management, library service, bookkeeping, serving and filing legal documents, and preparing legal forms.

### First Year

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FIRST SEMESTER	SECOND SEMESTER
ENG 101 Composition ..... 3	ENG 130 Business Writing I ..... 3
SOC 101 Introduction to Sociology ..... 3	PSY 101 Introduction to Psychology ..... 3
ACC 101 Accounting I ..... 3	LTE 102 Fundamentals of Legal Research ..... 3
LTE 101 Introduction to Legal Technology ..... 3	LTE 105 Family Law ..... 3
LTE 103 Litigation ..... <u>3</u>	LTE 123 Real Property Law ..... <u>3</u>
15	15

### Second Year

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FIRST SEMESTER	SECOND SEMESTER
ACC 211 Business Law I ..... 3	ACC 212 Business Law II or
LTE 202 Estate Planning ..... 3	LTE 210 Corporate and Securities Law ..... 3
LTE 203 Income Taxation I ..... 3	LTE 204 Income Taxation II or
PSC 201 Contemporary American Politics ..... 3	ACC 102 Accounting II ..... 3
Elective <sup>1</sup> ..... <u>3</u>	LTE 200 Probate ..... 3
15	LTE 206 Conference Course in Legal Technology <sup>2</sup> ..... 3
	Humanities elective <sup>3</sup> ..... <u>3</u>
	15

<sup>1</sup>LTE 212 is recommended.

<sup>2</sup>Required for persons with no legal experience, persons with legal experience may substitute another Legal Technology course.

<sup>3</sup>PHI 110 is recommended.



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**LIBERAL ARTS**

The Liberal Arts transfer curriculum lays the foundation for a broad general education. It should be followed by those who wish to become lawyers, historians, philosophers, sociologists, English teachers, social workers, anthropologists and political scientists, and for those who have not chosen their field of specialization but who wish to satisfy the general education requirements of the university to which they will transfer.

Though the general education requirements of universities vary in some details, in general the student can be sure he will meet them if he takes at Harper two semesters of transfer-level English composition, two semesters of laboratory science, four semesters of foreign language, two semesters of mathematics, and a number of courses in the social sciences and humanities. The student can often count each year of successful high school foreign language as one semester of college foreign language, and he may meet the mathematics requirement of some universities by passing their mathematics proficiency test.

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**First Year**


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FIRST SEMESTER	SECOND SEMESTER
ENG 101 Composition . . . . . 3	ENG 102 Composition . . . . . 3
Social Science elective . . . . . 3	Social Science elective . . . . . 3
Laboratory science <sup>1</sup> . . . . . 4	Laboratory science <sup>1</sup> . . . . . 4
Mathematics or elective . . . . . 3	Mathematics or elective . . . . . 3
Foreign Language elective . . . . . 4	Foreign Language elective . . . . . 4
<u>17</u>	<u>17</u>

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**Second Year**


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FIRST SEMESTER	SECOND SEMESTER
English <sup>2</sup> . . . . . 3	English <sup>2</sup> . . . . . 3
Social Science elective . . . . . 3	Social Science elective . . . . . 3
Humanities elective <sup>3</sup> . . . . . 3	Humanities elective <sup>3</sup> . . . . . 3
Foreign Language <sup>4</sup> . . . . . 3-4	Foreign Language <sup>4</sup> . . . . . 3-4
Additional electives <sup>5</sup> . . . . . 3-4	Additional electives <sup>5</sup> . . . . . 3-4
<u>15-17</u>	<u>15-17</u>

<sup>1</sup>Physical or biological science or physics, chemistry, botany, or other lab science.

<sup>2</sup>Advanced English, literature or speech.

<sup>3</sup>HUM 101 and HUM 102 are recommended. Other humanities areas include art, music, literature, philosophy, fine arts, SPE 107, SPE 111, or SPE 212.

<sup>4</sup>Consult a student development faculty member for specific language requirements of the university to which you plan to transfer.

<sup>5</sup>Another lab science may be added. Electives may be drawn also from anthropology, art, economics, geology, geography, history, music, political science, philosophy, psychology, sociology, and speech.

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**MARKETING MID-MANAGEMENT  
(GENERAL MARKETING OPTION)**

A two-year career program for persons interested in preparing for positions in the dynamic field of marketing. Career objectives of persons completing this program would be in the areas of sales, advertising and sales promotion, marketing management, wholesaling, retailing, or other specialized areas of marketing.

**First Year**


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FIRST SEMESTER	SECOND SEMESTER
English elective . . . . . 3	PSY 145 Psychology in Business and Industry . . . . . 3
PSY 101 Introduction to Psychology . . . . . 3	ENG 130 Business Writing I . . . . . 3
MGT 111 Introduction to Business Organization . . . . . 3	MKT 245 Principles of Marketing or Marketing elective <sup>1</sup> . . . . . 3
MGT 150 Business Math . . . . . 3	MGT 270 Principles of Management . . . . . 3
MKT 140 Salesmanship or Marketing elective <sup>1</sup> . . . . . 3	DPR 101 Introduction to Data Processing . . . . . 3
15	15

**Second Year**


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FIRST SEMESTER	SECOND SEMESTER
SPE 101 Fundamentals of Speech Communication . . . . . 3	Humanities elective . . . . . 3
ECO 200 Introduction to Economics . . . . . 3	ACC 102 Accounting II or Marketing elective <sup>1</sup> . . . . . 3
ACC 099 Business Recordkeeping or	ACC 211 Business Law I . . . . . 3
ACC 101 Accounting I . . . . . 3	Business elective . . . . . 3
MKT 281 Marketing Internship I <sup>2</sup> . . 3	MKT 282 Marketing Internship II <sup>2</sup> . . . . . 3
Marketing elective <sup>1</sup> . . . . . 3	15
15	

<sup>1</sup>Electives: MKT 106, MKT 109, MKT 140, MKT 141, MKT 215, MKT 216, MKT 217, MKT 240, MKT 245, MKT 246, MKT 247, MKT 250, MAT 125.

<sup>2</sup>Part-time students who are unable to participate in the internship phase of the program due to their present employment position should substitute approved marketing electives. The consent of the coordinator is required, and the coordinator should be contacted to assist in determining when to make this substitution.

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**MARKETING MID-MANAGEMENT  
(SUPERMARKET MANAGEMENT OPTION)**

Supermarket Management is a two-year career occupational curriculum consisting of 64 credit hours and leads to the award of an associate in applied science degree. The curriculum is designed to provide training and experience that can lead to managerial positions in the industry. The cooperative method of education is employed whereby the student alternates between terms of full-time attendance at school and full-time work experience during the course of the program.

This method is illustrated by the school term/work term patterns below.

**Curriculum Patterns**

<b>School Semester</b>	<b>Pattern No. 1 (Summer Start)</b>	<b>Pattern No. 2 (Fall Start)</b>
<b>First Year</b>		
Summer .....	School Term	Work Term
Fall .....	School Term	School Term
Spring .....	Work Term	School Term
Summer .....	School Term	Work Term
<b>Second Year</b>		
Fall .....	Work Term	School Term
Spring .....	School Term	Work Term
Summer .....	Work Term	School Term

**Course Work<sup>1</sup>**

Course work taken under the Supermarket Management option is comparable to that taken under the General Marketing option described on the preceding page, insofar as the general education and the general business courses are concerned. To support the Supermarket Management option, the following specialized courses have been developed in cooperation with representatives of the supermarket industry:

MKT 109 — The Retail Food Distribution Industry

MKT 215 — Supermarket Operations

MKT 216 — Supermarket Merchandising

<sup>1</sup>Specific details as to the timing and sequence of particular courses will be determined through consultation with the coordinator and a student development faculty member.

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## MATERIAL MANAGEMENT

Material Management is a two-year career program leading to an associate in applied science degree. The program is designed to provide in-service education for those persons working directly in or in fields allied to material management and physical distribution. Additionally, the program may provide pre-service training for those who may seek or be transferred into jobs within these fields.

### First Year

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#### FIRST SEMESTER

ACC 101 Accounting I .....	3
MGT 111 Introduction to Business Organization .....	3
ENG 101 Composition .....	3
DPR 101 Introduction to Data Processing .....	3
MAT 101 Fundamentals of Material Management .....	<u>3</u>
	15

#### SECOND SEMESTER

ACC 102 Accounting II .....	3
English elective .....	3
Material Management elective <sup>1</sup> ....	3
MGT 270 Principles of Management .....	3
PSY 145 Psychology in Business and Industry .....	<u>3</u>
	15

### Second Year

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#### FIRST SEMESTER

MKT 245 Principles of Marketing ..	3
ECO 200 Introduction to Economics .....	3
ACC 211 Business Law I .....	3
Material Management electives <sup>1</sup> ...	<u>6</u>
	15

#### SECOND SEMESTER

MAT 228 Finance for Material Managers .....	3
Material Management electives <sup>1</sup> ...	9
Humanities elective .....	<u>3</u>
	15

<sup>1</sup>Electives are to be selected from the following list of courses, with approval of the coordinator or a student development faculty member:

Electives: Group I (select four courses)	
MAT 120 Production Control Concepts .....	3
MAT 121 Principles of Physical Distribution .....	3
MAT 122 Inventory Control for Material Managers .....	3
MAT 123 Traffic and Transportation .....	3
MAT 124 Material Handling and Packaging .....	3
MAT 125 Purchasing .....	3
Electives: Group II (select two courses)	
MAT 220 Advanced Production Control .....	3
MAT 221 Distribution Center Operations .....	3

MAT 223 Transportation Law .....	3
MAT 224 Advanced Material Handling and Warehousing .....	3
MAT 225 Practice of Regulatory Agencies .....	3
MAT 226 Material Requirements Planning (MRP) .....	3
MAT 259 Advanced Purchasing .....	3
MAT 280 Material Management Policy .....	3
MGT 160 Principles of Supervision .....	3
MGT 225 Applied General Statistics .....	3
MGT 274 Industrial Management .....	3
DPR 203 Systems Analysis and Design I .....	3
MET 108 Manufacturing Processes and Materials .....	3

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**MECHANICAL ENGINEERING TECHNOLOGY**

Mechanical Engineering Technology is a two-year technical program leading to an associate in applied science degree. The program is designed to train students in the fields of mechanical design and production technology.

The mechanical engineering option includes courses in design, drafting, mathematics, mechanics, materials, and general education. The production engineering option consists of courses in quality control, production control, process planning, automation, numerical control, general education, and other related areas of study.

Graduates of these programs could accept positions such as mechanical designers, mechanical draftsmen, machine designers, mechanical engineering technicians, quality control technicians, production and/or inventory controllers, expeditors, tool design technicians, junior process or methods engineers, technical salesmen, etc.

Graduates of these programs may continue their education either by taking additional courses or, if they so desire; by pursuing a bachelor of science in technology degree with a major in fields such as industrial or manufacturing technology.

**First Year**

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**FIRST SEMESTER (Both options)**

EGR 100 Introduction to Engineering and Technology .....	1
ENG 099 Composition or	
ENG 101 Composition .....	3
MET 102 Technical Drafting .....	3
MET 105 Basic Machine Shop .....	3
MTH 106 Mathematics I .....	5
NMC 101 Introduction to Numerical Control .....	<u>2</u>
	17

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**SECOND SEMESTER (Mechanical Engineering option)**

ENG 103 Report Writing .....	3
MET 103 Descriptive Geometry ...	3
MET 104 Statics .....	3
MET 108 Manufacturing Processes and Materials .....	3
MTH 107 Mathematics II .....	<u>5</u>
	17

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**SECOND SEMESTER (Production Engineering option)**

ENG 103 Report Writing .....	3
MET 103 Descriptive Geometry ...	3
MET 108 Manufacturing Processes and Materials .....	3
MTH 107 Mathematics II .....	5
NMC 105 Part Programming I .....	<u>3</u>
	17

## Second Year

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### FIRST SEMESTER

(Mechanical Engineering option)

MET 201 Mechanisms .....	4
MET 202 Advanced Technical Drafting .....	3
MET 204 Strength of Materials ....	3
MET 206 Metallurgy and Heat Treatment .....	2
Social Science elective .....	<u>3</u>
	15

### FIRST SEMESTER

(Production Engineering option)

MET 111 Quality Control .....	3
MET 206 Metallurgy and Heat Treatment .....	2
MET 211 Process Planning and Tool Design .....	4
NMC 215 Part Programming II ....	3
Social Science elective .....	<u>3</u>
	15

### SECOND SEMESTER

(Mechanical Engineering option)

MET 207 Machine Design .....	4
MET 209 Applied Digital Control ..	3
Technical elective <sup>1</sup> .....	3
Humanities elective .....	3
Social Science elective .....	<u>3</u>
	16

### SECOND SEMESTER

(Production Engineering option)

MET 209 Applied Digital Control ..	3
MAT 120 Production Control Concepts .....	3
Social Science elective .....	3
Humanities elective .....	<u>3</u>
	12

<sup>1</sup>Technical elective should be chosen from ELT 215, MET 110, MET 111, MET 205, PHY 101.

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## MEDICAL LABORATORY TECHNICIAN

Medical Laboratory Technician is a two-year career program, including one summer session, leading to an associate in applied science degree and completion of eligibility requirements to take the written examination given by the Board of Registry of the American Society of Clinical Pathologists. The program is open to men and women interested in a career as a medical laboratory technician.

Specific minimum requirements for admission: (1) either one year of high school or one college course in each of the following subjects: biology, chemistry, and algebra, with a minimum grade of "C" for each course, (2) ACT test, (3) evidence of satisfactory health, (4) personal interview. Applicants may also be required to take Harper College's Chemistry Department placement test.

Students are advised to consult the program coordinator early in their planning for a personal interview and evaluation of qualifications.

### First Year

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#### FIRST SEMESTER

BIO 130 Microbiology .....	4
CHM 121 General Chemistry I .....	4
MTH 110 Laboratory Mathematics .....	3
MLT 101 Medical Technology I .....	3
ENG 101 Composition .....	<u>3</u>
	17

#### SECOND SEMESTER

BIO 161 Human Physiology .....	4
CHM 122 General Chemistry II ...	4
MLT 102 Medical Technology II ...	3
MLT 104 Principles of Clinical Microbiology .....	3
ENG 102 Composition .....	<u>3</u>
	17

### Summer Session

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CHM 210 Quantitative Analysis .....	5
MLT 200 Medical Technology III ..	<u>2</u>
	7

### Second Year

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#### FIRST SEMESTER

MLT 201 Medical Technology IV ..	8
Social Science electives .....	<u>6</u>
	14

#### SECOND SEMESTER

MLT 202 Medical Technology V ...	9
Humanities elective .....	<u>3</u>
	12

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**MEDICAL OFFICE ASSISTANT**

Medical Office Assistant is a two-year career program leading to an associate in applied science degree for persons interested in becoming medical assistants or medical secretaries in a doctor's office, clinic, or hospital. The curriculum is designed to give the student training in order to perform a variety of administrative and clinical tasks to facilitate the work of the doctor.

**First Year**


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FIRST SEMESTER	SECOND SEMESTER
ENG 101 Composition . . . . . 3	SEC 221 Advanced Typing . . . . . 2
SEC 101 MOA/MT Orientation Seminar . . . . . 1	SEC 240 Medical Transcription <sup>2</sup> & Typing I or
SEC 122 Intermediate Typing <sup>1</sup> . . . . . 2	SEC 242 Medical Transcription & Typing II . . . . . 3
SEC 240 Medical Transcription <sup>2</sup> & Typing I or	ENG 130 Business Writing I . . . . . 3
SEC 126 Intermediate Shorthand <sup>1</sup> . . . . . 3	PSY 101 Introduction to Psychology . . . . . 3
BIO 135 Introduction to Human Anatomy and Physiology or	BIO 136 Introduction to Human Disease (3) or
BIO 160 Human Anatomy <sup>3</sup> . . . . . 4	BIO 161 Human Physiology <sup>3</sup> (4) . 3-4
HSC 112 Medical Terminology . . . . . 2	PED 201 First Aid . . . . . 2
15	16-17

**Second Year**


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FIRST SEMESTER	SECOND SEMESTER
SEC 241 Medical Office Procedures . . . . . 4	SEC 239 MOA Seminar and Externship . . . . . 3
HSC 211 Clinical Procedures I . . . . . 3	HSC 212 Clinical Procedures II . . . . . 3
Humanities elective . . . . . 3	HSC 213 Medical Law and Ethics . . . . . 2
ACC 099 Business Recordkeeping . 3	MGT 267 Office and Administrative Management . . . . 3
DPR 101 Introduction to Data Processing . . . . . 3	Social Science elective <sup>4</sup> . . . . . 3
16	14

<sup>1</sup>Students may be placed into more advanced courses depending upon previous training and consent of instructor.

<sup>2</sup>Students may take either SEC 240 and SEC 242, or may take SEC 126 and SEC 240.

<sup>3</sup>Students may take BIO 135 and BIO 136 or BIO 160 and BIO 161.

<sup>4</sup>Recommended electives are ECO 115 or ECO 200.



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**MUSIC<sup>1</sup>**

The curriculum at most schools of music is a classical-traditional program requiring a minimum of four full years of academic work leading to the bachelor of music, bachelor of arts, or bachelor of science degree in music. A music student should be able to perform proficiently on at least one instrument (voice is categorized as an instrument), and should have a basic working knowledge and proficiency at the keyboard. All music programs require credit hours in both applied and ensemble music.

The music curriculum at Harper College is designed to provide the student with a program equivalent to the first two years of most four-year college programs, with emphasis in music education, musicology, composition, applied music, and theory and literature. A student who successfully completes the courses suggested in this curriculum guide will have met all requirements for an associate in arts degree.

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**First Year**


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**FIRST SEMESTER**

ENG 101 Composition .....	3
MUS 111 Theory of Music I .....	3
MUS 115 Ear Training, Sight Singing and Keyboard Harmony I .....	1
MUS 120 Introduction to Music Literature .....	3
MUS 165 Class Piano .....	2
Group Performance <sup>2</sup> .....	1
Applied Music elective <sup>3</sup> .....	<u>2-4</u> 15-17

**SECOND SEMESTER**

ENG 102 Composition .....	3
Science or Mathematics elective .....	3-5
MUS 112 Theory of Music II .....	3
MUS 116 Ear Training, Sight Singing and Keyboard Harmony II .....	1
Group Performance <sup>2</sup> .....	1
Instrumental or Vocal Techniques .....	2
Applied Music elective <sup>3</sup> .....	<u>2-4</u> 15-19

(see footnotes on next page.)

## Second Year

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### FIRST SEMESTER

Science or Mathematics elective .....	3-5
Social Science .....	3
MUS 211 Theory of Music III .....	3
MUS 215 Ear Training, Sight Singing and Keyboard Harmony III .....	1
Group Performance <sup>2</sup> .....	1
Applied Music elective <sup>3</sup> .....	2-4
Elective .....	<u>2</u>
	15-19

### SECOND SEMESTER

Social Science elective .....	3
MUS 212 Theory of Music IV .....	3
MUS 216 Ear Training, Sight Singing and Keyboard Harmony IV .....	1
Instrumental or Vocal Techniques .....	2
MUS 223 Instrumental Literature or MUS 224 Keyboard and Vocal Literature .....	3
Group Performance <sup>2</sup> .....	1
Applied Music elective <sup>3</sup> .....	2-4
Elective .....	<u>2</u>
	17-19

<sup>1</sup>All majors in music must demonstrate minimum proficiency on the piano and are advised to take MUS 100 as part of their elective credit.

<sup>2</sup>To be elected from MUS 130, MUS 136, MUS 140, MUS 145, and MUS 150.

<sup>3</sup>To be elected from courses numbered MUS 180 and MUS 280.

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## NURSING (PRACTICAL AND ASSOCIATE DEGREE)

The Nursing Program is designed to include sufficient and appropriate content to enable students to receive a certificate in practical nursing at the completion of the first year level and sufficient and appropriate content to enable students to receive an associate degree in nursing at the completion of the two-year sequence.

The program is open to qualified men and women who are interested in nursing as a career. Specific requirements for admission include: high school grade average of "C" or higher or GED equivalency and/or college grade point average of 2.0 ("C") or higher; one unit of high school biology or its equivalent; ACT test; Psychological Corporation Admissions Test for Schools of Nursing or Practical Nursing; satisfactory health and personal interview with the nursing faculty.

Licensed Practical Nurses are eligible for admission directly into the second level after successful completion with a minimum "C" grade of first level support courses (BIO 160 and BIO 161; PSY 101 and PSY 216). A grade of "C" or better in BIO 160 and BIO 161 is required for all students entering second level.

Graduates, after passing the LPN or RN licensure examinations, are qualified for positions in a variety of hospital and specialized care settings.

One unit of high school chemistry is required for candidates for the associate degree. If the course has been completed more than five years prior to intended entrance, candidates must repeat chemistry. Applicants who have had a college chemistry course will be evaluated individually.

### First Year

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#### FIRST SEMESTER

BIO 135 Introduction to Human Anatomy and Physiology or	
BIO 160 Human Anatomy <sup>1</sup> .....	4
PSY 101 Introduction to Psychology .....	3
NUR 101 Nursing Fundamentals .....	<u>9</u>
	16

#### SECOND SEMESTER

BIO 136 Introduction to Human Disease (3) or	
BIO 161 Human Physiology <sup>1</sup> (4) ..	3-4
PSY 216 Child Psychology .....	3
NUR 102 Nursing Care of Hospitalized Patients .....	9
NUR 103 Nursing Survey I .....	<u>1</u>
	16-17

(see footnotes on next page.)

## Summer Session

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NUR 104 Nursing Field Experience <sup>2</sup> .....	4
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## Second Year

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### FIRST SEMESTER

ENG 101 Composition .....	3
NUR 201 Advanced Nursing I .....	8
BIO 130 Microbiology .....	4
SOC 101 Introduction to Sociology .....	<u>3</u>
	18

### SECOND SEMESTER

ENG 102 Composition .....	3
NUR 202 Advanced Nursing II .....	8
NUR 203 Nursing Survey II .....	1
Humanities elective .....	<u>3</u>
	15

<sup>1</sup>Practical Nursing students may take BIO 135 or BIO 160 and BIO 136 or BIO 161. All Associate Degree Nursing students must take BIO 160 and BIO 161.

<sup>2</sup>Required for students electing to earn a certificate in Practical Nursing. It is not required for the student who proceeds to the second level of study.

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## PARK AND GROUNDS OPERATION MANAGEMENT

Park and Grounds Operation Management is a two-year program leading to an associate in applied science degree. This program prepares the student to function as a park operations supervisor or grounds maintenance supervisor in public parks, high density housing complexes, cemetery-memorial parks, golf courses, industrial-office parks, and educational parks.

### First Year

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#### FIRST SEMESTER

PKM 100 Introduction to Park Management .....	1
PKM 110 Soil Science .....	4
PKM 140 Grounds Equipment and Shop Operation .....	4
BIO 120 General Botany .....	4
PED 201 First Aid .....	<u>2</u>
	15

#### SECOND SEMESTER

PKM 101 Ornamental Plants .....	4
PKM 102 Plant Diseases and Pests .....	4
PKM 111 Basic Horticultural Skills .....	4
PKM 121 Facilities Management ...	<u>3</u>
	15

### Summer Session<sup>1</sup>

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PKM 150 Park Management Internship .....	5
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### Second Year

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#### FIRST SEMESTER

PKM 210 Drainage and Irrigation .....	3
PKM 212 Turfgrass Science .....	4
PKM 214 Principles of Park Design and Construction .....	4
English <sup>2</sup> .....	3
Social Science elective .....	<u>3</u>
	17

#### SECOND SEMESTER

PKM 220 Arboriculture .....	4
PKM 230 Contracts, Specifications, Estimating .....	3
PKM 250 Park Management Seminar .....	1
English <sup>2</sup> .....	3
Humanities elective .....	3
Social Science elective .....	<u>3</u>
	17

<sup>1</sup>Recommended elective but not required.

<sup>2</sup>Students will take ENG 099, ENG 101 or ENG 102, depending upon their English assessment and the advice of the coordinator.

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**PHYSICAL EDUCATION<sup>1</sup>**

The successful completion of the physical education transfer program will enable the student to obtain an associate degree and to transfer with junior status to most four-year colleges and universities. To insure satisfactory transfer, the student is advised to investigate the institution to which he or she plans to transfer for specific general education requirements.

**First Year**


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**FIRST SEMESTER**

ENG 101 Composition .....	3
SPE 101 Fundamentals of Speech Communication .....	3
BIO 110 Principles of Biology .....	4
PED 200 Introduction to Physical Education .....	2
PED 204 Methods of Teaching Physical Education Activities .....	2
Physical Education activity .....	<u>1</u>
	15

**SECOND SEMESTER**

ENG 102 Composition .....	3
BIO 140 General Zoology .....	4
Mathematics elective .....	3
PED 203 Health .....	2
PED 226 Baseball Techniques .....	2
Physical Education activity .....	<u>1</u>
	15

**Second Year**


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**FIRST SEMESTER**

BIO 160 Human Anatomy .....	4
Social Science elective .....	3
Humanities elective .....	3
PED 201 First Aid .....	2
PED 210 Sports Officiating .....	2
PED 222 Football Techniques .....	<u>2</u>
	16

**SECOND SEMESTER**

BIO 161 Human Physiology .....	4
HST 112 The American Experience Since 1877 .....	3
Humanities elective .....	3
PED 220 Track and Field Techniques .....	2
PED 224 Basketball Techniques ...	2
PED 228 Aquatics .....	<u>2</u>
	16

<sup>1</sup>The following physical education courses can, in addition to the "100" level courses, serve to satisfy the 3 credit hour physical education teacher certification requirements for the State of Illinois: PED 201, PED 203, PED 204.

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**PUBLIC ADMINISTRATION**

Public Administration is a two-year program leading to an associate in applied science degree. The program is designed to provide mid-level government employees, in state, local, or federal agencies, with knowledge, skills and values useful in the management of people and programs.

The program seeks to serve mid-career people whose duties and responsibilities have been changed by promotion to managerial or staff positions. Pre-service students planning to continue their education at a four-year college or university toward a professional degree in public affairs or administration will be uniquely prepared to enter government service by taking this program.

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**First Year**

FIRST SEMESTER	SECOND SEMESTER
ENG 101 Composition ..... 3	ENG 103 Report Writing ..... 3
DPR 101 Introduction to Data Processing ..... 3	ACC 101 Accounting I ..... 3
PAD 101 Introduction to Municipal and Governmental Management ..... 3	PAD 201 Governmental Management ..... 3
PSY 101 Introduction to Psychology ..... 3	PSC 202 Suburban, Urban and State Politics ..... 3
SOC 101 Introduction to Sociology ..... <u>3</u>	Humanities elective ..... <u>3</u>
	15

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**Second Year**

FIRST SEMESTER	SECOND SEMESTER
PAD 202 Organization Behavior ..... 3	PAD 203 Management Process .... 3
PAD 210 Public Finance and Budget Process ..... 3	PAD 212 Public Personnel Management ..... 3
SOC 215 Introductory Social Psychology ..... 3	PAD 214 Planning in the Public Agency ..... 3
SPE 101 Fundamentals of Speech Communication ..... 3	Electives <sup>1</sup> ..... <u>6</u>
Elective <sup>1</sup> ..... <u>3</u>	15

<sup>1</sup>Electives: PAD 215, PAD 220, PAD 222.

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**REAL ESTATE**

A two-year program in professional development for those men and women who desire to excel as real estate salespersons or wish to expand their career opportunities to include managing or owning a real estate business. Career objectives might also include appraising, banking, savings and loan, title company, mortgage brokerage, estate counseling and others.

**First Year**


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**FIRST SEMESTER**

ATE 209 Building Construction Principles for Realtors .....	3
MGT 111 Introduction to Business Organization .....	3
ENG 101 Composition .....	3
PSY 101 Introduction to Psychology .....	3
RES 120 Principles of Real Estate ..	2
SPE 115 Interviewing .....	<u>1</u>
	15

**SECOND SEMESTER**

ACC 101 Accounting I .....	3
PSY 145 Psychology in Business and Industry .....	3
RES 121 Advanced Principles, Marketing and Brokerage .....	3
RES 123 Real Estate Law .....	3
ENG 130 Business Writing I .....	<u>3</u>
	15

**Second Year**


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**FIRST SEMESTER**

MKT 245 Principles of Marketing ..	3
DPR 101 Introduction to Data Processing .....	3
RES 122 Real Estate Appraisal I ....	3
RES 124 Real Estate Finance .....	3
ECO 200 Introduction to Economics .....	<u>3</u>
	15

**SECOND SEMESTER**

MKT 140 Salesmanship or RES or Business elective .....	3
ECO 210 Money and Banking .....	3
RES 233 Real Estate Problems Seminar .....	3
Humanities elective <sup>1</sup> .....	3
Elective .....	<u>3</u>
	15

<sup>1</sup>PHI 110 or PHI 115 recommended.



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**REFRIGERATION AND AIR CONDITIONING TECHNOLOGY**

Refrigeration and Air Conditioning Technology is a two-year technical program leading to an associate in applied science degree. The courses in the curriculum are theory and service oriented. Theory courses deal with energy conversions. Service courses are strongly related to a "hands on" philosophy. Emphasis is placed upon operating and servicing equipment.

Graduates from this program can be employed as engineering laboratory assistants, equipment salesmen, heating and refrigeration servicemen, estimators and system designers, and stationary engineers.

**First Year<sup>1</sup>**


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FIRST SEMESTER	SECOND SEMESTER
RAC 101 Refrigeration Fundamentals ..... 3	RAC 102 Refrigeration Systems ..... 4
RAC 103 Heating Principles ..... 3	RAC 104 Residential Comfort Systems ..... 4
RAC 105 Heating and Cooling Controls ..... 4	English elective <sup>2</sup> ..... 3
English elective <sup>2</sup> ..... 3	MET 101 Elements of Drafting <sup>3</sup> ..... 3
PSY 101 Introduction to Psychology ..... 3	
	14
16	

**Second Year<sup>1</sup>**


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FIRST SEMESTER	SECOND SEMESTER
RAC 201 Refrigeration System Design I ..... 4	RAC 202 Refrigeration System Design II ..... 4
RAC 203 Air Conditioning Principles ..... 4	RAC 204 Air Distribution ..... 3
Social Science elective ..... 3	RAC 208 Pneumatic Controls ..... 3
Humanities elective <sup>4</sup> ..... 3	Electives <sup>5</sup> ..... 6
	16
14	

<sup>1</sup>RAC 290 may be substituted for some of the listed RAC courses, with approval of coordinator.

<sup>2</sup>Students may take ENG 099 or ENG 101 the first semester depending upon their test scores and the advice of a student development faculty member; ENG 102, ENG 103, or ENG 130 are suggested second semester electives.

<sup>3</sup>Students will enroll in sections of MET 101 designed for RAC students.

<sup>4</sup>Suggested humanities elective: ART 122 or PHI 110.

<sup>5</sup>CHM 110, ENG 103, MGT 111, MGT 154, MGT 160, MKT 140, MTH 095, MTH 102, or MTH 106.

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## SCIENCE AND MATHEMATICS

The following program is typical of the first two years of a bachelor's degree program in physical science, mathematics, or computer science.

Special care should be taken in selecting the laboratory science courses appropriate to the student's career plans. The student's program should be designed so that course sequences are completed at Harper before transfer.

Chemistry and Chemical Engineering majors should elect CHM 131-132 and CHM 204-205, while Physics majors should aim at MTH 201-202 and PHY 201-202 and 203. Mathematics majors should complete the sequence of MTH 105-201, 202 and 203 or 212, as should Computer Science majors who should also elect MTH 215. Mathematics courses numbered MTH 104 or below usually may not be used for credit other than as electives in these programs.

Some transfer institutions do not require foreign languages in mathematics and science programs. Thus, students may wish to defer their language program until the second year, when transfer plans are known.

### First Year

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#### FIRST SEMESTER

ENG 101 Composition .....	3
Foreign Language elective .....	4
Mathematics elective .....	3-5
Laboratory Science elective .....	<u>4-5</u>
	14-17

#### SECOND SEMESTER

ENG 102 Composition .....	3
Foreign Language elective .....	4
Mathematics elective .....	3-5
Laboratory Science elective .....	<u>4-5</u>
	14-17

### Second Year

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#### FIRST SEMESTER

Social Science elective .....	3
Mathematics elective .....	3-5
Laboratory Science elective .....	4-5
Elective .....	<u>3-4</u>
	13-17

#### SECOND SEMESTER

Social Science elective .....	3
Mathematics elective .....	4-5
Laboratory Science elective .....	4-5
Elective .....	<u>3-4</u>
	14-17

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## SECRETARIAL CAREER

See: Executive Secretarial Development  
 Legal Secretary  
 Medical Office Assistant

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**SUPERVISORY AND ADMINISTRATIVE MANAGEMENT**

Supervisory and Administrative Management is a two-year career program designed to assist students in a wide variety of business occupations. The associate degree curriculum is structured to meet the needs of individuals interested in gaining or improving management skills. The program not only develops abilities to organize, coordinate, and evaluate the functions of a unit, department, or branch of an organization either in an industrial or administrative management capacity, but it also provides the fundamental management skills needed by the successful owner-manager of a business.

**First Year**

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FIRST SEMESTER	3	SECOND SEMESTER	3
ACC 101 Accounting I .....	3	ACC 102 Accounting II .....	3
MGT 111 Introduction to Business Organization .....	3	MGT 270 Principles of Management .....	3
MGT 160 Principles of Supervision .....	3	DPR 101 Introduction to Data Processing .....	3
ENG 101 Composition .....	3	English elective <sup>1</sup> .....	3
PSY 101 Introduction to Psychology .....	3	PSY 145 Psychology in Business and Industry .....	3
	<u>15</u>		<u>15</u>

**Second Year**

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FIRST SEMESTER	3	SECOND SEMESTER	3
ACC 211 Business Law I .....	3	MGT 218 Introduction to Finance .....	3
MKT 245 Principles of Marketing .....	3	MGT 291 Problems in Management and Supervision .....	3
ECO 200 Introduction to Economics .....	3	Business electives <sup>2</sup> .....	6
Business electives <sup>2</sup> .....	6	Humanities elective .....	3
	<u>15</u>		<u>15</u>

<sup>1</sup>To be selected from a "100" level course or above.  
<sup>2</sup>These electives require approval of the coordinator or a student development faculty member.

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## CERTIFICATE PROGRAMS

A certificate program is a sequence of courses in a specialized academic and/or technical area requiring approximately two to three years of part-time or one year of full-time course work. There are currently programs of this type at the college. Completion of the course work required for a specific program with a grade point average of 2.0 (C) or higher entitles the student to a certificate of achievement in that field of specialization.

Courses in certificate programs are offered in the evening as well as during the day to permit part-time evening students to meet their particular training needs and to reach an obtainable goal within a reasonable period of time. All courses creditable toward a certificate are also applicable toward an associate degree.

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## ACCOUNTING AIDE

Accounting Aide is a certificate program for persons interested in pursuing careers as junior accountants in business, industry and government. Despite the increasing use of data processing in accounting work, there is an acute shortage of persons with the training and basic intellect needed to be successful in accounting.

---

ACC 101 Accounting I .....	3
ACC 102 Accounting II .....	3
ACC 155 Tax and Payroll Accounting .....	4
ACC 201 Intermediate Accounting I .....	3
ACC 202 Intermediate Accounting II .....	3
ACC 203 Introductory Cost Accounting .....	<u>3</u>
	19

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## ACCOUNTING CLERK

The Accounting Clerk certificate curriculum provides the student with the courses needed for an entry level position in such areas as accounts payable, accounts receivable, and inventory accounting.

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ACC 099 Business	
Recordkeeping .....	3
MGT 150 Business Math .....	3
Typing elective' .....	<u>2</u>
	8

'The student may select courses from SEC 121, SEC 122, or SEC 221 depending upon previous training and consent of the instructor.

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## ACCOUNTING-PAYROLL

The certificate curriculum in payroll accounting will provide the student with the courses needed for an entry level position in this particular area. The certificate could be earned in one, or no more than two, semesters.

---

ACC 155 Tax and Payroll	
Accounting .....	4
MGT 150 Business Math .....	3
Typing elective' .....	<u>2</u>
	9

'The student may select courses from SEC 121, SEC 122, or SEC 221 depending upon previous training and consent of the instructor.

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## AIR CONDITIONING

**See: Refrigeration and Air Conditioning**

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## ARCHITECTURAL TECHNOLOGY

Architectural Technology is a technical program leading to a certificate upon completion of any of the following course offerings totaling 15 credit hours. The curriculum emphasis is on architecture in the related areas of construction, drafting, computer programming, estimating, and specifications.

Any combination of 15 credit hours may be selected from the courses listed below, providing the combination has approval of a student development faculty member.

---

ATE 101 Introduction to Architectural Tech. I .....	4	ATE 202 Comprehensive Building Project II ..	4
ATE 102 Introduction to Architectural Tech. II .....	4	ATE 203 Construction Problems I .....	4
ATE 103 Building Materials Technology I .....	4	ATE 204 Construction Problems II .....	4
ATE 104 Building Materials Technology II .....	4	ATE 205 Computer Graphic and Optimization .....	3
ATE 105 Computer Math for Architectural Tech. I .....	3	ATE 206 Computer Applications in Architecture .....	3
ATE 106 Computer Math for Architectural Tech. II .....	3	ATE 207 Behavior of Architectural Materials I .....	3
ATE 201 Comprehensive Building Project I .....	4	ATE 208 Behavior of Architectural Materials II .....	3

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## BAKING

The Baking certificate program is a one-year trade oriented course planned to prepare students for entrance into the food service and baking industry

Graduates are trained to secure positions as qualified bakers and baker's helpers in institutional, retail, and commercial bakeries.

---

### FIRST SEMESTER

FSM 090 Basic Quantity Baking .....	10
FSM 111 Introduction to Food Service .....	2
FSM 114 Food Standards and Sanitation .....	<u>3</u>
	15

### SECOND SEMESTER

FSM 091 Advanced Quantity Baking .....	10
FSM 115 Menu Planning .....	2
Elective .....	<u>3</u>
	15

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**BANKING, FINANCE AND CREDIT**

A one-year program leading to a certificate in Banking, Finance and Credit emphasizing either the banking or the savings and loan industry. The program is designed for those currently employed in, or seeking employment in banks or savings and loan associations. The curriculum emphasizes developing competencies necessary for supervisory and public contact positions in the finance field. Students may apply this entire program toward the two-year associate degree in Banking, Finance and Credit.

---

**FIRST SEMESTER**  
 (Banking option)

BFC 101 Principles of Financial Institution Operations .....	3
BFC 115 Savings Account Administration .....	3
ENG 101 Composition .....	3
MGT 111 Introduction to Business Organization .....	3
MGT 150 Business Math .....	<u>3</u>
	15

**FIRST SEMESTER**  
 (Savings and Loan option)

BFC 101 Principles of Financial Institution Operations .....	3
BFC 115 Savings Account Administration .....	3
ENG 101 Composition .....	3
MGT 111 Introduction to Business Organization .....	3
MGT 150 Business Math .....	<u>3</u>
	15

**SECOND SEMESTER**  
 (Banking option)

ACC 101 Accounting I .....	3
ACC 211 Business Law I .....	3
ECO 115 Consumer Economics ...	3
SPE 101 Fundamentals of Speech Communication .....	3
SPE 115 Interviewing .....	1
Banking elective <sup>1</sup> .....	<u>3</u>
	16

**SECOND SEMESTER**  
 (Savings and Loan option)

ACC 101 Accounting I .....	3
ECO 115 Consumer Economics ...	3
RES 120 Principles of Real Estate .....	2
SPE 101 Fundamentals of Speech Communications .....	3
SPE 115 Interviewing .....	1
Savings and Loan elective <sup>2</sup> .....	<u>3</u>
	15

<sup>1</sup>See the associate degree program in Banking, Finance and Credit for approved banking electives.

<sup>2</sup>See the associate degree program in Banking, Finance and Credit for approved savings and loan electives.

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## BANKING, FINANCE AND CREDIT

A one-semester program leading to a certificate in Banking, Finance and Credit emphasizing either the banking or the savings and loan industry. The program is designed for those currently employed in or seeking employment in banks or savings and loan associations. The curriculum emphasizes developing competencies required for entry level positions in the field of finance. Students may later apply this entire program toward the one-year certificate and the two-year associate degree in Banking, Finance and Credit.

---

BFC 101 Principles of Financial Institution Operations .....	3
BFC 115 Savings Account Administration .....	3
MGT 111 Introduction to Business Organization .....	3
MGT 150 Business Math .....	3
ENG 101 Composition .....	<u>3</u>
	15



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## BROKERS LICENSE CERTIFICATION

This mini program will provide the minimum number of hours and the mandatory courses to complete the education requirements for application to take the State of Illinois Real Estate Brokers test.

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RES 108 Brokers Licensure	
Preparation I .....	2
RES 109 Brokers Licensure	
Preparation II .....	2
RES 120 Principles of Real Estate	<u>2</u>
	6

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## BUILDING CODES AND ENFORCEMENT

The Building Codes and Enforcement certificate program, which totals 24 credit hours, is designed to provide specialized education for those interested in entry level positions in this field as well as for those currently employed in building code enforcement.

The Building Codes and Enforcement certificate will satisfy college credit requirements for entry level positions in the building code enforcement field.

---

BCE 101 Basic Construction for	
Building Codes .....	3
BCE 102 Basic Code Enforcement	
Techniques .....	3
BCE 103 Plumbing and Electrical	
Codes .....	3
BCE 104 Basic Mechanical and	
Energy Conservation Codes .....	3
BCE 201 BOCA Basic Building	
Codes .....	3
ENG 103 Report Writing .....	3
FIS 115 Construction Design and	
Fire Safety .....	3
SPE 101 Fundamentals of Speech	
Communication .....	3

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## CERTIFIED PROFESSIONAL SECRETARY

The Certified Professional Secretary program is a certificate program specifically designed for individuals with a high degree of secretarial skill and business experience who are currently employed as secretaries and wish to raise their level of professionalism and/or qualify for promotion into executive secretarial, administrative assistant, or managerial types of positions within a company.

This program emphasizes advanced secretarial and business training in order to provide the secretary with a deeper and broader understanding of the dynamics of the business world and the vital role performed by the secretary in the ever increasing demands of business.

---

SEC 260 Environmental Relationships in Business .....	1
SEC 261 Business Law and Public Policy .....	1
SEC 262 Economics and Management .....	1
SEC 263 Financial Analysis and the Mathematics of Business .....	1
SEC 264 Communications, Work Flow, and Decision Making .....	1
SEC 265 Advanced Office Procedures .....	<u>1</u>
	6

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## CHILD DEVELOPMENT

The Child Development certificate program, totaling 15 credit hours, emphasizes theoretical and practical aspects of early childhood education. The Child Development certificate will satisfy preliminary college credit requirements for employment in child development and early childhood education centers for normal and handicapped children.

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### Required:

CCA 102 Child Development I .....	3
CCA 103 Child Development II .....	3

**Electives:** Select any 9 credit hours from the following courses:

CCA 101 Introduction to Child Development Careers .....	3	CCA 220 Child Development Practicum Internship .....	6
CCA 209 Language Arts for the Young Child .....	3	CCA 221 Workshop in Early Childhood Education .....	3
CCA 210 Creative Activities for Young Children .....	3	CCA 225 Mental Health in Child Development .....	3
CCA 214 Principles of Preschool Education .....	4	CCA 230 Movement and Rhythms for the Young Child .....	3
CCA 215 Children's Laboratory .....	2	CCA 252 Child-Family- Community .....	3
CCA 218 Assisting the Severely Handicapped .....	4	CCA 253 Administration of Early Childhood Programs .....	3
CCA 219 Psychology of Exceptional Children .....	3	HSC 220 Health, Nutrition and Safety .....	3

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## COOKING

The Cooking certificate program is a one-year trade oriented course planned to prepare students for entrance into the food service industry. Graduates may be able to secure positions as head cooks, assistant cooks, specialty cooks or chefs' assistants.

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### FIRST SEMESTER

FSM 095 Basic Quantity Cooking .....	10
FSM 111 Introduction to Food Service .....	2
FSM 114 Food Standards and Sanitation .....	<u>3</u>

### SECOND SEMESTER

FSM 096 Advanced Quantity Cooking .....	10
FSM 115 Menu Planning .....	2
Elective .....	<u>3</u>

15

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## CRIMINAL JUSTICE

This certificate program is designed to provide specialized education for those currently employed, or other interested persons, who wish to obtain a certificate indicating completion of the courses as a group. Any combination of 15 credit hours may be selected from the courses listed below, providing the combination has coordinator approval. These courses must be taken at Harper College.

---

CRJ 101 Introduction to Criminal Justice . . . . .	3	CRJ 207 Vice and Drug Control . . . . .	3
CRJ 102 Police Administration and Organization . . . . .	3	CRJ 208 Police Supervision . . . . .	3
CRJ 105 Criminal Courts of the U.S. . . . .	3	CRJ 209 Police Public-Community Relations . . . . .	3
CRJ 110 Police Operations . . . . .	3	CRJ 210 Introduction to Criminology . . . . .	3
CRJ 201 Criminal Law I . . . . .	3	CRJ 212 Traffic Administration . . . . .	3
CRJ 202 Criminal Law II . . . . .	3	CRJ 215 Alternatives to Confinement . . . . .	3
CRJ 203 Law and Society . . . . .	3	CRJ 216 Investigative Process . . . . .	3
CRJ 205 Juvenile Delinquency . . . . .	3	CRJ 226 Case Management . . . . .	3

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## DATA PROCESSING-CLERICAL

This is a two-semester certificate program which includes the study of introduction to data processing, keypunching and verifying, business machines operations, and general clerical subjects. Graduates may find employment as keypunch operators, verifier operators, or other clerical positions in data processing installations in business, industry, and government.

---

### FIRST SEMESTER

ENG 101 Composition <sup>1</sup> . . . . .	3
ACC 101 Accounting I . . . . .	3
DPR 101 Introduction to Data Processing . . . . .	3
DPR 103 Keypunching and Verifying <sup>2</sup> . . . . .	3
MGT 150 Business Math . . . . .	<u>3</u>

15

### SECOND SEMESTER

SOC 101 Introduction to Sociology . . . . .	3
SEC 131 Business Machines Business or Data Processing elective . . . . .	2
ENG 130 Business Writing I . . . . .	3-5
Elective . . . . .	<u>2-3</u>

13-16

<sup>1</sup>Students not qualifying for ENG 101 may take ENG 099.

<sup>2</sup>Entry into DPR 103 requires successful completion of a typing course.

---

**DATA PROCESSING-COMPUTER OPERATOR**

This is a two-semester certificate program which includes the study of introduction to data processing, computer logic and programming technology, programming systems, an internship at an industrial training station, and general clerical subjects. Graduates may find employment as computer operators, tape librarians, peripheral equipment handlers, or other clerical positions in data processing installations in business, industry, and government.

---

**FIRST SEMESTER**

ENG 101 Composition .....	3
MGT 111 Introduction to Business Organization .....	3
DPR 101 Introduction to Data Processing .....	3
DPR 106 Computer Logic and Programming Technology .....	3
DPR 135 Computer Operator (DOS) .....	<u>3</u>
	15

**SECOND SEMESTER**

MGT 150 Business Math .....	3
ENG 103 Report Writing .....	3
DPR 137 Internship/Computer Operator Field Project .....	3
DPR 202 Programming Systems .....	<u>3</u>
	12

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## DATA PROCESSING--TECHNICAL

Data Processing--Technical is a certificate program designed to either familiarize the student with, or to upgrade his knowledge of, the field of data processing. Contingent upon the particular sequence of courses taken, the student may be able to upgrade his current position or enter the data processing field in a variety of positions.

Any combination of 15 credit hours may be selected from the courses listed below, providing the appropriate prerequisites have been satisfied.

---

DPR 101 Introduction to Data Processing .....	3	DPR 150 Business FORTRAN .....	3
DPR 106 Computer Logic and Programming Technology .....	3	DPR 202 Programming Systems .....	3
DPR 108 Computer Programming--COBOL .....	5	DPR 203 Systems Analysis and Design I .....	3
DPR 110 Computer Programming--Basic Assembler Language .....	5	DPR 204 Advanced Systems Analysis and Design .....	3
DPR 135 Computer Operator (DOS) .....	3	DPR 208 Computer Programming-- Advanced COBOL .....	4
DPR 140 Report Program Generator (RPG Programming) .....	3	DPR 210 Computer Programming-- Advanced Assembler Language .....	4
DPR 142 PL/I Programming Language .....	3	DPR 212 Programming for the Minicomputer .....	3
		DPR 240 Advanced RPG II .....	3
		DPR 250 Data Processing Math and Computer Statistics .....	4

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**ELECTRONICS**

Any combination of 16 credit hours may be selected from the courses listed below, providing the combination has approval of a student development faculty member.

---

ELT 101 Circuits I .....	4	ELT 205 Electronic Instrumentation .....	4
ELT 102 Circuits II .....	4	ELT 206 Electronic Computers ....	4
ELT 103 Circuits III .....	4	ELT 207 UHF Communications and Reception .....	4
ELT 105 Electro-Mechanical Drafting .....	3	ELT 210 Computer Programming ..	3
ELT 110 Introductory Electronics .....	2	ELT 215 Electrical Controls and Motors .....	4
ELT 111 Electronics I, Resistive ....	3	MTH 106 Mathematics I .....	5
ELT 203 Electronics II, Pulse ....	4	MTH 107 Mathematics II .....	5
ELT 204 Electronics III, Advanced Electronics .....	4	MTH 206 Mathematics III .....	3

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**FASHION DESIGN**

Any combination of 15 credit hours may be selected from the courses listed below, providing the combination has coordinator approval.

---

FAS 101 Flat Pattern Design and Draping I .....	3	FAS 201 Advanced Flat Pattern Design and Draping I .....	4
FAS 102 Flat Pattern Design and Draping II .....	4	FAS 202 Advanced Flat Pattern Design and Draping II .....	4
FAS 103 Apparel Design and Construction I .....	3	FAS 203 Advanced Diversified Apparel Design I .....	4
FAS 104 Apparel Design and Construction II .....	4	FAS 204 Advanced Diversified Apparel Design II .....	4
FAS 105 Fashion Design Illustration I .....	1	FAS 205 Tailoring Techniques I .....	2
FAS 106 Fashion Design Illustration II .....	1	FAS 206 Tailoring Techniques II .....	2
FAS 107 Textiles I .....	1	FAS 209 Advanced Fashion Illustration I .....	1
FAS 108 Textiles II .....	1	FAS 210 Advanced Fashion Illustration II .....	1
FAS 109 Micro Environmental Design I .....	2	FAS 212 Design Communication .....	2
FAS 110 Micro Environmental Design II .....	2		

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## FIRE SCIENCE TECHNOLOGY

The Fire Science certificate program is designed to upgrade people currently employed in the fire science field and to enable them to seek more responsible positions within that field by furthering their knowledge in special areas of fire science.

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**Electives:** Select at least 6 credit hours from the following courses:

ENG 099 Composition .....	3	ENG 103 Report Writing .....	3
ENG 101 Composition .....	3	SOC 101 Introduction to Sociology .....	3

**Electives:** Select at least 9 credit hours from the following courses, providing the combination has approval of a student development faculty member:

FIS 101 Municipal Fire Administration I .....	3	FIS 201 Municipal Fire Administration II .....	3
FIS 112 Fire Alarm and Extinguishing Systems .....	3	FIS 222 Fire Inspection Applications .....	3
FIS 115 Construction Design and Fire Safety .....	3	FIS 242 Fire Hydraulics .....	3
FIS 122 Fire Inspection Principles .....	3	FIS 245 Fire Causes and Investigation .....	3
FIS 132 Hazardous Materials I .....	3	FIS 252 Automatic Sprinkler Systems .....	3
FIS 133 Hazardous Materials II .....	3	FIS 262 Water Supply Analysis ....	3
		HSC 110 Emergency Medical Technician Training .....	5

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## FOOD SERVICE MANAGEMENT

The Food Service Management certificate program is designed for people presently employed in the food service industry to enable them to upgrade their management skills or to assume more responsible positions.

A minimum of 15 credit hours may be selected from the courses listed below.

---

FSM 111 Introduction to Food Service .....	2	FSM 211 Purchasing and Storage .....	3
FSM 114 Food Standards and Sanitation .....	3	FSM 212 Food Service Supervision .....	4
FSM 115 Menu Planning .....	2	FSM 214 Cost Control .....	3
FSM 130 Hospitality Law and Risk Management .....	4	FSM 215 Restaurant Layout and Equipment .....	3
FSM 210 Hospitality Facility Maintenance .....	3		



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## GERIATRIC/HOME HEALTH CARE AIDE

The Geriatric/Home Health Aide certificate program is designed to prepare students to assist the professional nurse in providing services related to the comfort and welfare of patients in the home setting of long term care facility. The program can be completed through eight weeks of full-time classroom and clinical experience.

Candidates for admission to the program must have a personal interview with a program faculty member.

---

GHH 101 Psychosocial Aspects of Caring for the Elderly .....	1
GHH 102 Basic Human Anatomy- Physiology and Medical Terminology .....	2
GHH 103 Geriatric/Home Health Aide Skills .....	<u>7</u>
	10

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## HORTICULTURE

A 16 credit hour program designed for students wishing to acquire basic knowledge and techniques in the ornamental horticulture field for personal or vocational use is the primary purpose of this program. The technical training will benefit those students who are currently employed or contemplating employment in any of several ornamental horticulture occupations.

---

### Required:

PKM 110 Soil Science .....	4
PKM 111 Basic Horticultural Skills .....	4
BIO 120 General Botany .....	4

### Elective: Select one course

PKM 101 Ornamental Plants .....	4
PKM 102 Plant Diseases and Pests .....	4

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## INDUSTRIAL AND RETAIL SECURITY

This certificate program is designed to provide a specialized group of courses for those presently employed and for those who may wish to have a better knowledge of this employment area when seeking employment in the security field.

To qualify for the certificate, students must take a total of 15 credit hours at Harper College.

---

### Required:

CRJ 250 Industrial Security Administration .....	3
CRJ 252 Industrial Fire Protection, Disaster Control .....	3
CRJ 253 Safety Management .....	3

### Electives:<sup>1</sup>

CRJ 110 Police Operations .....	3
CRJ 201 Criminal Law I .....	3
CRJ 202 Criminal Law II .....	3
CRJ 213 Crime Prevention .....	3
CRJ 216 Investigative Process .....	3
CRJ 226 Case Management .....	3

<sup>1</sup>Students having special needs should see the coordinator.

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## INDUSTRIAL SALES MANAGEMENT AND DEVELOPMENT

The program is designed to provide in-service and pre-service training and development for industrial sales and sales management personnel representing manufacturers, service marketers, wholesalers or other marketing middlemen. Through the selection of courses this program can satisfy both the career needs of individuals seeking to develop and expand their selling and account servicing skills and individuals preparing for sales management responsibilities. This certificate program would be especially appropriate for individuals who are entering the professional sales field without a formal sales or marketing education.

Program requirements are satisfied by completing 6 hours from Group I and 9 hours from Group II for a total minimum of 15 credit hours. To achieve an individual program designed to compliment the student's industrial and education background, the selection of courses should be made in consultation with the coordinator.

---

### Electives: Group I (select at least two courses<sup>1</sup>)

MKT 140 Salesmanship . . . . .	3	MKT 240 Advanced Sales Skills . . . .	3
MKT 141 Sales Management . . . . .	3	MKT 247 Consumer Buying Behavior . . . . .	3

### Electives: Group II (select at least three courses<sup>1</sup>)

ACC 211 Business Law I . . . . .	3	MKT 141 Sales Management . . . . .	3
MAT 125 Purchasing . . . . .	3	MKT 240 Advanced Sales Skills . . . .	3
MGT 111 Introduction to Business Organization . . . . .	3	MKT 245 Principles of Marketing . .	3
MGT 160 Principles of Supervision . . . . .	3	MKT 246 Industrial Marketing . . . .	3
		MKT 247 Consumer Buying Behavior . . . . .	3

<sup>1</sup>Students must satisfy prerequisites for each course selected.

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## LEGAL SECRETARY

The Legal Secretary certificate is designed for persons who possess a high degree of office secretarial skill and are interested in pursuing secretarial careers in law firms, government, or law departments of business firms.

This is a 25 or 26 credit hour program in which 14 credit hours are required and 11 to 12 credit hours are electives.

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### Required:

SEC 221 Advanced Typing <sup>1</sup> .....	2
SEC 225 Dictation and Transcription <sup>1</sup> .....	3
SEC 234 Legal Office Procedures .....	3
SEC 235 Legal Dictation and Transcription <sup>1</sup> .....	3
SEC 236 Secretarial Procedures .....	3

**Electives:** Select any four of the following courses with the advice of the coordinator.

ACC 101 Accounting I .....	3
ACC 211 Business Law I .....	3
ACC 212 Business Law II .....	3
MGT 111 Introduction to Business Organization .....	3
MGT 267 Office and Administrative Management .....	3
ECO 200 Introduction to Economics .....	3
RES 120 Principles of Real Estate .....	2

<sup>1</sup>Placement into courses contingent upon previous training.

---

**LEGAL TECHNOLOGY**

The certificate program is designed for those who are currently employed or employable in the legal field or those who, due to experiential backgrounds, could benefit most from these specialty options. The various choices available allow the student to develop special interests and skills. All students are required to take LTE 101, Introduction to Legal Technology, and then a minimum of five other courses from those listed below, provided the combination has approval of the coordinator or a student development faculty member.

---

LTE 102 Fundamentals of Legal Research .....	3	LTE 210 Corporate and Securities Law .....	3
LTE 103 Litigation .....	3	LTE 212 Law Office Systems .....	3
LTE 105 Family Law .....	3	LTE 220 Community Law .....	3
LTE 123 Real Property Law .....	3	RES 124 Real Estate Finance .....	3
LTE 200 Probate .....	3	CRJ 105 Criminal Courts of the U.S. ....	3
LTE 201 Tort and Insurance Law .....	3	CRJ 201 Criminal Law I .....	3
LTE 202 Estate Planning .....	3	CRJ 202 Criminal Law II .....	3
LTE 203 Income Taxation I .....	3	ACC 211 Business Law I .....	3
LTE 204 Income Taxation II .....	3	ACC 212 Business Law II .....	3
LTE 206 Conference Course in Legal Technology .....	3	IDS 290 Independent Study .....	3

**Certificate Specialties Available**

<b>Corporate Law</b>	<b>Criminal Law</b>	<b>Family Law</b>	<b>General Practice</b>
LTE 101	LTE 101	LTE 101	LTE 101
LTE 204	LTE 206	LTE 103	LTE 103
LTE 206	CRJ 105	LTE 105	LTE 200
LTE 210	CRJ 201	LTE 200	LTE 202
ACC 212	CRJ 202	LTE 202	LTE 123
Elective	Elective	Elective	Elective <sup>1</sup>
<b>Litigation</b>	<b>Real Estate</b>	<b>Tax Law</b>	
LTE 101	LTE 101	LTE 101	
LTE 103	LTE 206	LTE 200	
LTE 105	LTE 123	LTE 202	
LTE 201	RES 124	LTE 203	
LTE 206	ACC 211	LTE 204	
Elective	Elective	Elective	

<sup>1</sup>Elective: CRJ 201, LTE 201, LTE 212, LTE 220.

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## MACHINIST

The Machinist certificate program allows for those interested or presently engaged in metalworking to develop knowledge and skills to assume responsible positions in the field.

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MET 102 Technical Drafting .....	3
MET 105 Basic Machine Shop .....	3
MET 110 Basic Welding .....	3
MET 205 Advanced Machine Shop .....	3
Technical electives <sup>1</sup> .....	<u>3-5</u> 15-17

<sup>1</sup>Technical electives may be chosen from any of the following: MET 108, MET 202, MET 210, MTH 106.

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**MATERIAL MANAGEMENT**

The Material Management certificate program is designed to provide in-service education for those persons working directly in, or in fields related to, material management and physical distribution. This particular curriculum format is especially suitable for those who may be in the field and are seeking to fill in knowledge or skill "gaps" in their total preparation. Additionally, the program may provide pre-service training for those who may seek or be transferred into jobs within these fields.

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**Required:**

MAT 101 Fundamentals of Material Management .....	3
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**Electives: Group I (select at least four courses)**

MAT 120 Production Control Concepts .....	3
MAT 121 Principles of Physical Distribution .....	3
MAT 122 Inventory Control for Material Managers .....	3
MAT 123 Traffic and Transportation .....	3
MAT 124 Material Handling and Packaging .....	3
MAT 125 Purchasing .....	3

**Electives: Group II (select one course)**

MAT 220 Advanced Production Control .....	3
MAT 221 Distribution Center Operations .....	3
MAT 223 Transportation Law .....	3
MAT 224 Advanced Material Handling and Warehousing .....	3
MAT 225 Practice of Regulatory Agencies .....	3
MAT 226 Material Requirements Planning (MRP) .....	3
MAT 228 Finance for Material Managers .....	3
MAT 259 Advanced Purchasing .....	3
MAT 280 Material Management Policy .....	3
MGT 225 Applied General Statistics .....	3
MGT 270 Principles of Management .....	3
DPR 203 Systems Analysis and Design I .....	3

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## MECHANICAL DRAFTING

The Mechanical Drafting certificate program has been developed in conjunction with the area industries to prepare students for challenging careers in drafting. The program may be completed in one semester of day school or two semesters of evening school.

---

MET 102 Technical Drafting .....	3
MET 202 Advanced Technical Drafting .....	3
MTH 106 Mathematics I .....	5
Technical electives' .....	<u>4-6</u>
	15-17

<sup>1</sup>Electives to be chosen from MET 103, MET 104, MET 105, and MET 201.

---

## MECHANICAL TECHNICIAN

The Mechanical Technician certificate program, developed in conjunction with area industries, prepares students for employment as industrial technicians, lab technicians, shop technicians, or engineering assistants. The program may be completed in one semester of day school or two semesters of evening school.

---

MET 102 Technical Drafting .....	3
MET 105 Basic Machine Shop .....	3
MTH 106 Mathematics I .....	5
Technical electives' .....	<u>4-6</u>
	15-17

<sup>1</sup>Electives to be chosen from MET 110, MET 205, MET 209, NMC 101, with approval of coordinator.



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## MEDICAL TRANSCRIPTIONIST

Medical Transcriptionist is a certificate program designed for persons interested in pursuing skills necessary to become medical transcriptionists.

---

### FIRST SEMESTER

SEC 101 MOA/MT Orientation Seminar .....	1
SEC 122 Intermediate Typing <sup>1</sup> .....	2
SEC 240 Medical Transcription & Typing I .....	3
ENG 101 Composition .....	3
HSC 112 Medical Terminology ....	2
BIO 135 Introduction to Human Anatomy and Physiology or	
BIO 160 Human Anatomy <sup>2</sup> .....	<u>4</u>
	15

### SECOND SEMESTER

SEC 130 Automatic Word Processing Equipment I .....	1
SEC 221 Advanced Typing .....	2
SEC 242 Medical Transcription & Typing II .....	3
PSY 101 Introduction to Psychology .....	3
BIO 136 Introduction to Human Disease (3) or	
BIO 161 Human Physiology <sup>2</sup> (4) .....	<u>3-4</u>
	12-13

<sup>1</sup>The student will be placed into more advanced courses depending upon previous training and consent of the instructor.

<sup>2</sup>Students may take BIO 135 and BIO 136 or BIO 160 and BIO 161.

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## NUMERICAL CONTROL TECHNICIAN

The Numerical Control Technician's certificate program allows for in-depth course work in numerical control. Such courses should provide an individual with the necessary background to assume a responsible position in this area.

---

NMC 101 Introduction to Numerical Control .....	2
NMC 105 Part Programming I .....	3
MET 105 Basic Machine Shop .....	3
MET 209 Applied Digital Control ..	3
Technical electives <sup>1</sup> .....	<u>4-6</u>
	15-17

<sup>1</sup>Technical electives may be chosen from: ELT 110, MET 205, MTH 106, NMC 215, NMC 220.

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## OPERATING ROOM TECHNICIAN

The Operating Room Technician certificate program is one full year in length, two semesters and an eight-week summer session. It prepares students to function as members of the surgical team under the supervision of qualified professional nurses in hospital areas concerned with the principles and practice of surgical asepsis as applied to the surgical patient before, during, and following surgery.

Students who wish to enter this program must make application for full-time status. Applications for admission will be processed beginning October 1 of the year preceding the fall term the student intends to begin. Requirements for admission include: fulfillment of the general admissions requirements of Harper College, high school graduate or equivalent, successful completion with a minimum "C" grade in biology at the high school or college level, satisfactory results on the ACT test, satisfactory health and personal interview with the coordinator.

Upon successful completion of the program the students will be eligible to take the National Certification Examination of the Association of Operating Room Technicians.

---

### FIRST SEMESTER

BIO 135 Introduction to Human Anatomy and Physiology or	
BIO 160 Human Anatomy	4
ORT 101 Operating Room Techniques I	6
ORT 111 Clinical Hospital Practicum I	5
HSC 112 Medical Terminology	2
	<u>17</u>

### SECOND SEMESTER

BIO 136 Introduction to Human Disease (3) or	
BIO 161 Human Physiology (4)	3-4
PSY 101 Introduction to Psychology	3
ORT 102 Operating Room Techniques II	6
ORT 112 Clinical Hospital Practicum II	6
	<u>18-19</u>

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### SUMMER SESSION

ORT 103 Operating Room Techniques III	2
ORT 113 Clinical Hospital Practicum III	7
	<u>9</u>

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## PARK AND GROUNDS OPERATION MANAGEMENT

This certificate program is designed to provide technical training for students who are currently employed or contemplating employment in the many facets of park and ground maintenance operations.

These courses can also be taken by students wishing to acquire techniques and knowledge in this area for personal or vocational use.

Any combination of 16 credit hours may be selected from courses listed below, providing the combination has coordinator approval.

---

PKM 100 Introduction to Park Management .....	1	PKM 214 Principles of Park Design and Construction .....	4
PKM 101 Ornamental Plants .....	4	PKM 220 Arboriculture .....	4
PKM 102 Plant Diseases and Pests .....	4	PKM 230 Contracts, Specifications, Estimating .....	3
PKM 110 Soil Science .....	4	PKM 240 Grounds Equipment Power Units .....	4
PKM 111 Basic Horticultural Skills .....	4	PKM 241 Management of Ice Rink Facilities .....	3
PKM 121 Facilities Management ...	3	PKM 242 Golf Course Management .....	4
PKM 140 Grounds Equipment and Shop Operation .....	4	PKM 245 Management of Aquatic Facilities .....	4
PKM 210 Drainage and Irrigation .....	3	BIO 120 General Botany .....	4
PKM 212 Turfgrass Science .....	4		

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## PRODUCTION ENGINEERING TECHNICIAN

The Production Engineering Technician certificate program allows for in-depth course work in the technical aspects of manufacturing, quality control, and production planning. Such a program should provide an individual with the necessary background to assume a responsible position in these areas.

Any combination of at least 15 credit hours may be selected from the courses listed below, provided that the combination has the prior approval of the coordinator.

---

MTH 106 Mathematics I	5	NMC 101 Introduction to Numerical Control	2
MET 102 Technical Drafting	3	NMC 105 Part Programming I	3
MET 105 Basic Machine Shop	3	NMC 201 Numerical Controlled Machining	3
MET 108 Manufacturing Processes and Materials	3	NMC 215 Part Programming II	3
MET 111 Quality Control	3	NMC 220 Special Problems	3
MET 211 Process Planning and Tool Design	4	MAT 120 Production Control	3

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## PRODUCTION WELDING

The Production Welding certificate program allows for those interested or presently working in a welding occupation to prepare for work and/or a more responsible position in the field. This certificate is not to be confused with the American Welding Society or local industrial welding certifications.

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MET 102 Technical Drafting	3
MET 105 Basic Machine Shop	3
MET 110 Basic Welding	3
MET 210 Advanced Welding	3
Technical electives <sup>1</sup>	<u>3-5</u> 15-17

<sup>1</sup>Technical electives may be chosen from MET 108, MET 205, MET 206.

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## PUBLIC ADMINISTRATION

The Public Administration certificate program is designed for people employed in government service who wish to upgrade their management skills or to assume more responsible positions.

To qualify for the certificate, the student must take a total of 15 credit hours at Harper College.

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### Required:

PAD 201 Governmental Management .....	3
PAD 202 Organization Behavior .....	3

**Electives:** Select any 9 credit hours from the following courses:

PAD 101 Introduction to Municipal and Governmental Management ....	3
PAD 203 Management Process .....	3
PAD 210 Public Finance and Budget Process .....	3
PAD 212 Public Personnel Management .....	3
PAD 214 Planning in the Public Agency .....	3

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## REAL ESTATE

A certificate program of professional development for those presently engaged in the real estate business and an opportunity to explore the field for those who are not. A total of 17 credit hours is required for this program. Any of the required courses in the sequence can be applied toward meeting the educational requirements of the Illinois Real Estate Licensure Laws.

---

### Required:

RES 120 Principles of Real Estate .....	2
RES 121 Advanced Principles, Marketing and Brokerage .....	3
RES 122 Real Estate Appraisal I .....	3
RES 123 Real Estate Law .....	3
RES 124 Real Estate Finance .....	3

**Elective:** Select one course

ATE 209 Building Construction Principles for Realtors .....	3
RES 230 Property Management Methods .....	3
RES 232 Real Estate Appraisal II .....	3
RES 233 Real Estate Problems Seminar .....	3

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## REFRIGERATION AND AIR CONDITIONING CERTIFICATES

The following Refrigeration and Air Conditioning certificate programs are designed to prepare the students for servicing refrigeration and heating equipment or selling environmental equipment to contractors and/or servicemen.

To obtain the various certificates, the students must successfully complete the following courses.

---

### HEATING SERVICE

RAC 103 Heating Principles .....	3
RAC 105 Heating and Cooling Controls .....	<u>4</u>
	7

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### REFRIGERATION SERVICE

RAC 101 Refrigeration Fundamentals .....	3
RAC 102 Refrigeration Systems .....	4
RAC 105 Heating and Cooling Controls .....	<u>4</u>
	11

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**REFRIGERATION AND AIR CONDITIONING**
**Required:**

MET 101 Elements of Drafting .....	3
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**Electives:** Select any 14 credit hours from the following courses, provided the combination has coordinator approval:

RAC 101 Refrigeration Fundamentals .....	3
RAC 102 Refrigeration Systems .....	4
RAC 103 Heating Principles .....	3
RAC 104 Residential Comfort Systems .....	4
RAC 105 Heating and Cooling Controls .....	4
RAC 201 Refrigeration System Design I .....	4
RAC 202 Refrigeration System Design II .....	4
RAC 203 Air Conditioning Principles .....	4
RAC 204 Air Distribution .....	3
RAC 208 Pneumatic Controls .....	3
RAC 290 Independent Study .....	3

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**RESIDENTIAL COMFORT SYSTEMS**

RAC 101 Refrigeration Fundamentals .....	3
RAC 103 Heating Principles .....	3
RAC 104 Residential Comfort Systems .....	4
RAC 105 Heating and Cooling Controls .....	4
	<u>14</u>

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## RETAIL MERCHANDISING

The Retail Merchandising certificate program is designed for individuals with career interests in the retail management field. It is especially appropriate for those individuals employed in retailing who are seeking skills and knowledge which may prepare them for career advancement. To complete the certificate program, an individual would need to take 14 credit hours as outlined below.

---

### Required:

MKT 106 Merchandising of Furnishings and Softline Goods or	
MKT 250 Retailing .....	3
MKT 251 Retail Merchandise Management .....	3
FAS 212 Design Communication .....	2

**Electives:** Select at least 6 credit hours from the following courses:

ACC 099 Business Recordkeeping or	
ACC 101 Accounting I .....	3
MGT 111 Introduction to Business Organization .....	3
MGT 154 Small Business Management .....	3
MGT 160 Principles of Supervision .....	3
MKT 106 Merchandising of Furnishings and Softline Goods .....	3
MKT 245 Principles of Marketing .....	3
MKT 250 Retailing .....	3



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## SECRETARIAL AND GENERAL OFFICE CERTIFICATES

The following certificate programs will allow an individual to receive training for specific jobs in an office.

These programs are designed specifically for individuals without any formal office training or for persons currently in the work force who want to acquire additional knowledge and skills for specific office positions. Credit hours received for one certificate may be applied toward any other certificate or degree program in Secretarial Science.

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### CERTIFIED PROFESSIONAL SECRETARY

See: **Certified Professional Secretary**

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### CLERICAL<sup>1</sup>

SEC 099	Typewriting Review (1) or	
SEC 121	Elementary Typing (2) or	
SEC 122	Intermediate Typing (2)	1-2
SEC 131	Business Machines	2
SEC 132	Executive Machine	
	Transcription	<u>2</u>
		5-6

<sup>1</sup>Placement into courses contingent upon previous training.

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### CLERK-TYPIST<sup>1</sup>

SEC 099	Typewriting Review (1) or	
SEC 121	Elementary Typing (2)	1-2
SEC 122	Intermediate Typing	2
SEC 221	Advanced Typing	<u>2</u>
		5-6

<sup>1</sup>Placement into courses contingent upon previous training.

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**LEGAL SECRETARY**

See: Legal Secretary

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**GENERAL OFFICE ASSISTANT<sup>1</sup>**

A combination of 28 credit hours may be selected from the following courses, with approval of the coordinator or a student development faculty member:

SEC 099 Typewriting Review . . . . .	1	ACC 099 Business Recordkeeping . . . . .	3
SEC 121 Elementary Typing . . . . .	2	MGT 150 Business Math . . . . .	3
SEC 122 Intermediate Typing . . . . .	2	ECO 115 Consumer Economics . . .	3
SEC 130 Automatic Word Processing Equipment I . . . . .	1	ECO 200 Introduction to Economics . . . . .	3
SEC 131 Business Machines . . . . .	2	DPR 101 Introduction to Data Processing . . . . .	3
SEC 132 Executive Machine Transcription . . . . .	2	ENG 099 Composition or	
SEC 135 Automatic Word Processing Equipment II . . . . .	1	ENG 101 Composition . . . . .	3
SEC 221 Advanced Typing . . . . .	2	ENG 130 Business Writing I . . . . .	3
SEC 236 Secretarial Procedures . . . . .	3	SPE 101 Fundamentals of Speech Communication . . . . .	3

<sup>1</sup>Placement into courses contingent upon previous training.

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**SECRETARIAL<sup>1</sup>**

A combination of 15 credit hours are required for the Secretarial certificate with approval of the coordinator or student development faculty member.

**Required:**

SEC 221 Advanced Typing .....	2
SEC 225 Dictation and Transcription .....	3
SEC 236 Secretarial Procedures .....	3

**Electives:** Select at least 7 credit hours from the following courses:

SEC 122 Intermediate Typing .....	2
SEC 126 Intermediate Shorthand .....	3
SEC 131 Business Machines .....	2
SEC 132 Executive Machine Transcription .....	2
ENG 101 Composition .....	3
ENG 130 Business Writing I .....	3

<sup>1</sup>Placement into courses contingent upon previous training.

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**STENOGRAPHER<sup>1</sup>**

SEC 098 Review Shorthand (2) or SEC 125 Elementary Shorthand (4) or SEC 140 Elementary Machine Shorthand (4) .....	2-4
SEC 126 Intermediate Shorthand .....	3
SEC 225 Dictation and Transcription .....	<u>3</u>
	8-10

<sup>1</sup>Placement into courses contingent upon previous training.

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**WORD PROCESSING**

The Word Processing certificate program prepares students to enter business, legal, and medical fields in word processing with specific training in procedures, equipment and personnel. The program is designed to provide a broad general knowledge in word processing in order to give the student the widest range of employment options.

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FIRST SEMESTER	SECOND SEMESTER
SEC 122 Intermediate Typing . . . . . 2	SEC 130 Automatic Word Processing Equipment I or
SEC 130 Automatic Word Processing Equipment I or	SEC 135 Automatic Word Processing Equipment II . . . . . 1
SEC 135 Automatic Word Processing Equipment II . . . . . 1	SEC 132 Executive Machine Transcription . . . . . 2
SEC 170 Introduction to Word Processing . . . . . 2	SEC 221 Advanced Typing . . . . . 2
SEC 171 Word Processing Dictation & Transcription Techniques . . . . . 2	SEC 272 Principles of Word Processing Management . . . . . 3
SEC 236 Secretarial Procedures . . . 3	ENG 130 Business Writing I . . . . . 3
DPR 101 Introduction to Data Processing . . . . . 3	Elective <sup>1</sup> . . . . . <u>3</u>
Elective <sup>1</sup> . . . . . <u>3</u>	14
16	

<sup>1</sup>Electives: ENG 103, MGT 111, MGT 167, MGT 267, PSY 145, SEC 234, SEC 237, SEC 240, SPE 101.

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## SUPERMARKET MANAGEMENT

The Supermarket Management certificate program has been designed by the college and representatives of the supermarket industry for those students with an interest in careers in the fast growing and important supermarket industry. Specifically, the program has been designed to provide training and experience that could lead to managerial positions in the industry.

---

### Required:

MKT 109 The Retail Food Distribution Industry .....	2
MKT 215 Supermarket Operations .....	3
MKT 216 Supermarket Merchandising .....	3

**Electives:** Select at least 9 credit hours from the following courses:

ACC 101 Accounting I .....	3	DPR 101 Introduction to Data Processing .....	3
ACC 102 Accounting II .....	3	ECO 115 Consumer Economics ...	3
ACC 211 Business Law I .....	3	ECO 200 Introduction to Economics .....	3
MGT 111 Introduction to Business Organization .....	3	ENG 130 Business Writing I .....	3
MGT 150 Business Math .....	3	PSY 145 Psychology in Business and Industry .....	3
MGT 270 Principles of Management .....	3		

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## SUPERVISORY AND ADMINISTRATIVE MANAGEMENT

A certificate program requiring completion of 18 credit hours as follows:

### Required:

MGT 160 Principles of Supervision .....	3
MGT 270 Principles of Management .....	3
MGT 291 Problems in Management and Supervision <sup>1</sup> .....	3

**Electives:** Select at least 9 credit hours from the following courses:

ACC 099 Business Recordkeeping .....	3
ACC 101 Accounting I .....	3
MGT 154 Small Business Management .....	3
MGT 167 Records Management ...	3
MGT 168 OSHA Standards and Compliance Procedures .....	3
MGT 265 Personnel Management .	3
MGT 267 Office and Administrative Management .....	3
MGT 275 Labor-Management Relations .....	3
PSY 145 Psychology in Business and Industry .....	3

<sup>1</sup>MGT 291 should be the last course taken in completing this sequence.

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## TEACHER AIDE

This sequence of courses prepares the student for employment as a teacher aide in public schools. These courses provide all academic credit required for employment as a teacher aide in the State of Illinois. During the second semester the student will be placed in school buildings to work with children and teachers.

---

### FIRST SEMESTER

CCA 102 Child Development I or	
CCA 103 Child Development II	... 3
EDU 210 Introduction to	
Education	..... 3
ENG 101 Composition	..... 3
PSY 101 Introduction to	
Psychology	..... 3
PSY 110 Human Potential	
Seminar	..... 1
RDG 104 Reading Acceleration	... <u>2</u>
	15

### SECOND SEMESTER

CCA 219 Psychology of	
Exceptional Children	..... 3
CCA 260 Teacher Aide	..... 6
EDU 211 Educational	
Psychology	..... 3
MTH 101 Fundamentals	
of Mathematics	..... <u>3</u>
	15

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## VENDING MACHINE REPAIR

A certificate program of three courses designed to develop job entry level skills in the repair of vending machines. Major emphasis is on actual experience working on vending machine equipment.

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ELT 121 Automatic Vending	
Machine Repair I	..... 2
ELT 122 Automatic Vending	
Machine Repair II	..... 2
ELT 123 Automatic Vending	
Machine Repair III	..... <u>2</u>
	6

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## COURSE NUMBERING SYSTEM

In general, courses numbered below 100 are not intended for transfer credit. These courses may be counted toward the A.A.S. and A.L.S. degrees, but not the A.A. or A.S. degrees.

Courses numbered 100 or above may be expected to fulfill transfer requirements. In some cases the courses designed primarily for vocational programs may not be acceptable in transfer to all four-year institutions. Students should see a student development faculty member for clarification on the transferability of these courses.

Courses numbered 200 and above are intended for the sophomore level.

### Sample Course Listing

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<b>ANT</b>	<b>201</b>	<b>General Anthropology</b>	<b>(3-0)</b>		<b>3 hrs.</b>
course prefix	course number	course title	hours of lecture per week	hours of lab per week	semester hours of credit

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**ACCOUNTING****ACC 099 Business Recordkeeping (3-0) 3 hrs.**

Standard bookkeeping procedures for small firms, both business and professional. Journalizing, posting, and preparing trial balances and financial statements. Procedures for handling petty cash and bank deposits and withdrawals. (Formerly BUS 099)

**ACC 101 Accounting I (3-0) 3 hrs.**

Basic accounting and business concepts, principles of recording transactions, special ledgers and statements, end-of-period adjustments, and financial statement preparation. (Formerly BUS 101)

**ACC 102 Accounting II (3-0) 3 hrs.**

Continues ACC 101. Emphasis on partnerships, corporations, branches, and departments. Interpretation of financial statements, basic valuation and cost concepts, and reporting of manufacturing costs.

Prerequisite: ACC 101.

(Formerly BUS 102)

**ACC 155 Tax and Payroll Accounting (4-0) 4 hrs.**

An explanation of the federal tax structure and instruction in the application of tax principles to specific problems. Also, the preparation of payroll records including tax returns for old age benefits and employment insurance.

(Formerly BUS 155)

**ACC 201 Intermediate Accounting I (3-0) 3 hrs.**

Problem-solving course in accounting principles begun in ACC 101 and ACC 102. Accounting and reporting process, accounting theory, inventories, tangible and intangible fixed assets.

Prerequisite: ACC 102.

(Formerly BUS 201)

**ACC 202 Intermediate Accounting II (3-0) 3 hrs.**

Accounting for corporations including capital stock, retained earnings, bonds payable, income statement and balance sheet analysis, pensions and leases, fund flow analysis, consignments, and installment sales.

Prerequisite: ACC 201.

(Formerly BUS 202)

**ACC 203 Introductory Cost Accounting (3-0) 3 hrs.**

Use of costs for control and decision making, with emphasis on determining and reporting overhead variance, product costs (process, job order, and standard cost), by-product costs, joint-product costs, and direct and variable costing.

Prerequisite: ACC 102.

(Formerly BUS 203)

**ACC 211 Business Law I (3-0)****3 hrs.**

A general history of the sources of the law, an outline of the judicial system, followed by the basic principles of business law including contracts, agency and employment, and property.

(Formerly BUS 211)

**ACC 212 Business Law II (3-0)****3 hrs.**

Continues ACC 211. Basic principles of business law including the uniform commercial code, business organizations and creditor's rights.

Prerequisite: ACC 211.

(Formerly BUS 212)

**AIR CONDITIONING**

**See: Refrigeration and Air Conditioning**

**ANTHROPOLOGY****ANT 201 General Anthropology (3-0)****3 hrs.**

An introduction to the comparative study of mankind from the viewpoints offered in: human evolutionary biology, social organization, linguistics, kinship, magic and religion, ecology, archeology, and non-human primate behavior.

**ANT 202 Comparative Study of Cultures (3-0)****3 hrs.**

Methods used by anthropologists to gather and interpret cultural materials. Comparison of various cultures, understanding the culture concept, and examination of the relationship between culture and personality.

**ANT 203 Native Americans (3-0)****3 hrs.**

This course is designed to acquaint the student with his pre-Columbian heritage. It deals with the wealth and variety of life-ways that were practiced by pre-historic and historic American Indians and the ways that they defined and dealt with the problems of life, including the problems encountered by European colonization.

**ANT 204 Introduction to Human Pre-History (3-0)****3 hrs.**

This course is designed to acquaint the student with ninety-five percent of man's existence, through the framework of the fossil record, archeology, primate behavior, and laboratory analysis, in addition to the study of present-day populations.

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**ARCHITECTURE**

- ARC 101 Basic Design I (0-6)** **3 hrs.**  
Basic factors in two-dimensional and three-dimensional design.
- ARC 102 Basic Design II (0-6)** **3 hrs.**  
More complex systems of two-dimensional and three-dimensional design.  
Introduction to color theory.  
Prerequisite: ARC 101.
- ARC 201 Design I (0-8)** **4 hrs.**  
Architectural design problems; emphasis on development and organization of space.  
Prerequisite: ARC 102.
- ARC 202 Design II (0-8)** **4 hrs.**  
Architectural design problems; emphasis on structure.  
Prerequisite: ARC 201.
- ARC 205 Architectural History I (3-0)** **3 hrs.**  
Introduction to the history of architecture and to architectural criticism. A cultural-historical oriented examination of architectural developments, stylistically, structurally, and symbolically, from prehistoric through medieval times.
- ARC 206 Architectural History II (3-0)** **3 hrs.**  
Continues cultural-historical examination of architectural developments, stylistically, structurally, and symbolically, from Renaissance to present.

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**ARCHITECTURAL TECHNOLOGY**

- ATE 101 Introduction to Architectural Technology I (1-6)** **4 hrs.**  
Pragmatic fundamentals of architecture consisting of general technical procedures, drafting and sketching, working drawing outline, mechanical and electrical services, estimating format, specification format, and computer relationships.
- ATE 102 Introduction to Architectural Technology II (1-6)** **4 hrs.**  
Orthographic, oblique, perspective projections, cross-referencing, indexing, specifications, cost control budgeting; development of working drawings and specifications.  
Prerequisite: ATE 101 or consent of instructor.
- ATE 103 Building Materials Technology I (2-4)** **4 hrs.**  
Typical brick bearing walls and their methods of bonding; wood floor, wall, and ceiling construction based on balloon and platform framing.

- ATE 104 Building Materials Technology II (2-4) 4 hrs.**  
Typical column, beam, girder, and cladding assemblies based on bolted and welded construction techniques.  
Prerequisite: ATE 103 or consent of instructor.
- ATE 105 Computer Mathematics for Architectural Technologies I (3-0) 3 hrs.**  
Basic algebra and an introduction to trigonometry; introduction to FORTRAN IV, application to architectural area and volume computations for gross floor and exterior wall designs.
- ATE 106 Computer Mathematics for Architectural Technologies II (3-0) 3 hrs.**  
Algebra, trigonometry, and analytic geometry related to computer techniques applicable to architectural building materials, SYMAT planning, critical path, and building geometry.  
Prerequisite: ATE 105 or consent of instructor.
- ATE 201 Comprehensive Building Project I (0-8) 4 hrs.**  
Architecture as a profession emphasizing computer technology for building project, finish materials, zoning and building ordinance formats, auto specifications, mechanical and electrical equipment coordination, site utilities, working drawings, shop drawing format, and building optimization in estimating.  
Prerequisite: ATE 102.
- ATE 202 Comprehensive Building Project II (0-8) 4 hrs.**  
Analysis of zoning and building code requirements applicable to developing and completing building project, architectural practice, construction scheduling, itemized cost estimates, contingency provisions, general condition, and architect-engineer-contractor fee schedule.  
Prerequisite: ATE 201.
- ATE 203 Construction Problems I (2-4) 4 hrs.**  
Detailing; investigation and analysis of fire resistivity of materials, construction type, Underwriters Laboratories hourly ratings, fireproofing, sprinkling, and insurance requirements.  
Prerequisite: ATE 104.
- ATE 204 Construction Problems II (2-4) 4 hrs.**  
Detailing of stairs; glazing; sealants; millwork; suspended ceiling systems; doors, windows; ceramic tile; roofing; investigation of bronze, aluminum, stainless steel, interior terrazzo, granite, and marble.  
Prerequisite: ATE 203.
- ATE 205 Computer Graphics and Optimization (3-0) 3 hrs.**  
Basic principles of differential and integral calculus for computer applications related to graphics, zoning ordinances, and building codes.  
Prerequisite: ATE 106.

- ATE 206 Computer Applications in Architecture (3-0)** **3 hrs.**  
Special problems emphasizing actual job conditions using total computer techniques for building specifications, perspectives, working drawings, and optimization programs in estimating.  
Prerequisite: ATE 205.
- ATE 207 Behavior of Architectural Materials I (3-0)** **3 hrs.**  
Strength of materials with physics integrated. Major concepts in scientific thought, interpretation of physical measurement, and structural development of matter in its various forms applicable to building construction.  
Prerequisite: ATE 104.
- ATE 208 Behavior of Architectural Materials II (3-0)** **3 hrs.**  
Continues ATE 207. Interactions of matter interpreted through concepts of force, motion and energy, visible and invisible electromagnetic spectrum, and nature of electric fields and forces; Hooke's Law; elasticity, shear and moment diagrams.  
Prerequisite: ATE 207.
- ATE 209 Building Construction Principles for Realtors (3-0)** **3 hrs.**  
Fundamental aspects of building such as legal descriptions, surveys, foundations, masonry and frame walls, roofing, insulation, interior finishes, painting, heating, ventilating, air conditioning, plumbing, and electrical. A building plan and specifications will be part of the test material from which the class will receive instruction in plan reading. The fundamentals of cost estimating will be covered.
- ATE 210 Cost Estimating (3-0)** **3 hrs.**  
Introduces methods of preparing estimates for various types of building contracts. Covers order of magnitude, scope, fast track, guaranteed maximum, guaranteed maximum with cost saving contingency, and lump sum contract.  
Prerequisite: ATE 203 or consent of instructor.
- ATE 221 Building Codes and Ordinances (3-0)** **3 hrs.**  
Studies national, state, and local ordinances on public safety, land use controls, and building codes. Includes a summary of philosophy of the development, use, and possible change of these codes as well as the organization and personnel of a code administration program.
- ATE 222 Basic Code Enforcement Techniques (3-0)** **3 hrs.**  
Introduces building inspection principles. Focuses on codes based on performance, plan review, permit issuance process, municipal zoning enforcement, inspection of single family dwellings, and inspection report writing.  
Prerequisite: ATE 221 or consent of instructor.

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**ART**

- ART 100 Art Seminar (1-0)** **1 hr.**  
Problems relating to the artist and art student. Required of all art majors. May be repeated up to two hours credit in sequent semesters.
- ART 105 Introduction to Arts (3-0)** **3 hrs.**  
An introduction to the study of visual arts with an emphasis on the following aspects: building the student's awareness of aesthetic concepts, theory and criticism. Developing sensitivity to works of art and acquainting the student with vocabulary applicable to describe visual situations. Required of all art majors.
- ART 110 Drawing I (0-6)** **3 hrs.**  
Studio course emphasizing the design elements and principles as applied to visual imagery.
- ART 111 Drawing II (0-6)** **3 hrs.**  
Studio course emphasizing the interaction between design abilities, image, and content.  
Prerequisite: ART 110 or consent of instructor.
- ART 121 Design I (0-6)** **3 hrs.**  
Studio course emphasizing the use of design elements and principles as applied to concepts of second dimension.
- ART 122 Design II (0-6)** **3 hrs.**  
Studio course emphasizing the use of design elements and principles as applied to concepts of the third dimension.  
Prerequisite: ART 121 or consent of instructor.
- ART 201 Drawing Studio (0-6)** **3 hrs.**  
Studio course emphasizing drawing as visual idea. May be repeated up to six hours credit.  
Prerequisite: ART 111 or consent of instructor.
- ART 206 Printmaking Studio (0-4)** **2 hrs.**  
Emphasis on traditional and contemporary methods of graphic reproduction of visual ideas pertaining to the fine arts. May be repeated up to six hours credit.  
Prerequisite: ART 111, ART 121, or consent of instructor.
- ART 225 Figure Drawing Studio (0-6)** **3 hrs.**  
Studio course with primary emphasis on drawing the human figure in action and from still poses. Rapid sketching, long poses, memory work. Studio and lecture. May be repeated up to six hours credit.  
Prerequisite: ART 111 or consent of instructor.

- ART 236 Composition (0-4)** **2 hrs.**  
 Pictorial composition in line, value, pattern, and color. Studio and lecture. May be repeated up to six hours credit.  
 Prerequisite: ART 111 and ART 121.
- ART 261 Painting Studio (0-4)** **2 hrs.**  
 Studio course with primary emphasis on the relationship between painting and visual ideas. May be repeated up to six hours credit.  
 Prerequisite: ART 111, ART 121, or consent of instructor.
- ART 291 Ceramics Studio (0-4)** **2 hrs.**  
 Studio course with the primary emphasis on the exploration of ceramic media as related to the expression of visual ideas. May be repeated up to six hours credit.  
 Prerequisite: ART 122 or consent of instructor.
- ART 296 Sculpture Studio (0-4)** **2 hrs.**  
 Studio course with primary emphasis on the exploration of sculptural media as related to visual ideas. May be repeated up to six hours credit.  
 Prerequisite: ART 122 or consent of instructor.

## ASTRONOMY

- AST 101 Introductory Astronomy (3-0)** **3 hrs.**  
 Gives a descriptive account of the universe, galaxies, stars, comets, meteors, the solar system, and their compositions, origins, evolutions and motions.  
 Recommended corequisite: Concurrent enrollment in AST 111.
- AST 111 Introductory Astronomy Lab (0-2)** **1 hr.**  
 Complements and illustrates concepts developed in AST 101, including telescope work and star charting.  
 Prerequisite: Successful completion of or concurrent enrollment in AST 101.

## BANKING, FINANCE AND CREDIT

- BFC 101 Principles of Financial Institution Operations (3-0)** **3 hrs.**  
 Surveys the internal operations of a bank and of a savings and loan association. Emphasizes the general principles of operations applicable to institutions of all sizes. Provides a sound foundation for newcomers to the industry regardless of age or prior academic experience.

- BFC 102 Commercial Law (3-0)** **3 hrs.**  
Provides a general knowledge of, and prepares the banker to act in accordance with, legal principles pertaining to business and to banking. Topics include contracts, commercial paper, bank deposits and collections, sales, titles agency, the Statute of Frauds, and the Uniform Commercial Code.
- BFC 110 Principles of Insurance (3-0)** **3 hrs.**  
Surveys the concepts of risk management for individuals and companies. Analyzes the various types of life, health, real property and liability insurance and the rights and obligations of the policy owner and the life insurance company.
- BFC 115 Savings Account Administration (3-0)** **3 hrs.**  
Provides information about one of the primary functions of a bank or a savings and loan association — soliciting and maintaining savings accounts. Includes the contractual nature of savings accounts, ownership of accounts, insurance coverage, creditor actions and loans secured by savings accounts.
- BFC 117 Marketing for Financial Institutions (3-0)** **3 hrs.**  
Provides an overview of the essentials of public relations and marketing for financial institutions. Includes the goals, development, implementation and evaluation of internal and external public relations and marketing plans.
- BFC 200 Investments of Financial Institutions (3-0)** **3 hrs.**  
Describes the concepts of investment and liquidity management for banks and savings associations. Analyzes topics such as cash flow, reserve requirement calculations, the risk factor and portfolio management.  
Prerequisite: BFC 101.
- BFC 211 Bank Accounting Systems (3-0)** **3 hrs.**  
Basic accounting procedures, techniques, and systems used in small and medium sized banks for the preparation and analysis of the statement of condition.  
Prerequisite: ACC 102. (BFC 216 and BFC 217 or ACC 212 are recommended.)
- BFC 212 Home Mortgage Lending (3-0)** **3 hrs.**  
Emphasizes the role of the mortgage loan officer seeking to develop a sound mortgage portfolio. The mortgage market is described, followed by the acquisition of a mortgage portfolio, mortgage plans and procedures, mortgage loan processing and servicing, and finally the obligations of the mortgage loan officer in overall portfolio management.  
Recommended prerequisite: ACC 211.
- BFC 213 Trust Functions and Services (3-0)** **3 hrs.**  
An introduction to trust operations. Presents the duties of, and services rendered by, institutions engaging in trust business, differentiating between the business and legal aspects of trust functions. Intended for all bankers and not limited to only those specializing in trust functions and services.



**BFC 215 Analyzing Financial Statements (3-0) 3 hrs.**

Characteristics of financial statements and financial statement analysis. Emphasis is on the income statement, balance sheet, and sources and uses of funds statement. Effects of reserves, inventory valuations, depreciation, depletion, amortization, subsidiaries, and affiliates. Cash flow, reported earnings, and taxable earnings. Interpretation of the financial data by means of per-share figures and ratio analysis.

Prerequisite: ACC 102. (ACC 211 is recommended.)

**BFC 216 Bank Auditing and Internal Control (3-0) 3 hrs.**

Principles, standards, techniques, and professionalism in bank auditing. External audits and the role of the external auditor. Internal control, audit procedures, and the role of the internal auditor. Audits by directors, trust department audits, EDP audits, other audits. Customer confirmations.

Prerequisite: ACC 101. (MGT 111 is recommended.)

**BFC 217 Uniform Commercial Code (3-0) 3 hrs.**

The Uniform Commercial Code and related uniform acts and their impact on common documents. Instruments considered include negotiable instruments, non-negotiable instruments, and quasi-negotiable instruments. Topics include formal requirements form and content, interpretation, delivery, negotiation, endorsement, presentment, notice of dishonor and protest, acceptance and certification, and discharge.

Prerequisite: ACC 211.

**BFC 218 Credit Administration (3-0) 3 hrs.**

Emphasis is on the identification and examination of factors influencing and determining institutional loan policy. Topics include methods of credit investigation and analysis, credit operation techniques, case problems in credit administration, and standard and unconventional types of loans.

**BFC 219 Consumer Credit (3-0) 3 hrs.**

Techniques of installment lending. Emphasis is on establishing credit, obtaining and checking information, servicing the loan, and collecting the amounts due. Other topics are inventory financing, special loan programs, business development and advertising, and public relations in installment lending.

**BFC 220 Bank Management (3-0) 3 hrs.**

Presents new trends in the philosophy and practice of bank management. The study and application of the principles presented provide new, as well as experienced, bankers with a working knowledge of bank management techniques. Since the case study is well established as an effective management learning technique, this course incorporates the use of case problems.

Prerequisite: BFC 215, and ECO 200 or ECO 201. (MGT 160 and MGT 270 are recommended.)

**BFC 229 Commercial Lending (3-0)****3 hrs.**

Exposes the student to practical lending situations. Emphasis is on the application of the case method to credit analysis and practical loan situations. Techniques of lending to specific industries are examined, including loans to minority enterprises. Curriculum includes secured and unsecured loans, sources and documentation of credit information, installment and term lending, slow loans and workouts.

Prerequisite: BFC 215. (ACC 211 is recommended.)

**BIOLOGY****BIO 101 Biology Survey (3-0)****3 hrs.**

Survey of science of biology, emphasizing chemical and physical properties of living things; overview of plant and animal kingdoms; systems of control; growth; differentiation; reproduction; genetics; ecology and evolution.

**BIO 103 Man and Environment (3-0)****3 hrs.**

Survey and analysis of man's role as an environmental modifier. Ecological, social-cultural, economic and political influences on environment are considered. The historical and current pollution problems and other environmental disruptions are analyzed and evaluated. Possible remedial courses of action are discussed and evaluated.

**BIO 110 Principles of Biology (3-3)****4 hrs.**

Emphasis is placed upon cell structure and function by exploring the various patterns that have evolved within cells for carrying out important life functions. This includes cell ultrastructure, cell surface-volume relationships, cellular metabolism and energetics, mitosis and meiosis, genetics, DNA, RNA and protein synthesis, gene action, population genetics, development and environment.

Prerequisite: High school biology with "C" or better, BIO 101, or consent of instructor.

**BIO 120 General Botany (3-3)****4 hrs.**

Survey of plant kingdom emphasizing ecological relationships, plants and their growth, structure, physiology, and reproduction.

Prerequisite: High school biology with "C" or better, BIO 101, or consent of instructor.

**BIO 122 Heredity, Evolution, and Culture (3-0)****3 hrs.**

Introductory analysis of life and the evolutionary record with emphasis on man and the gene pool. Factors such as social and environmental entities and the problems of the 20th century are considered.

- BIO 130 Microbiology (2-4) 4 hrs.**  
 Characteristics and importance of micro-organisms, emphasis on identification, anatomy and physiology, control, relationship to health and disease, and economic importance.  
 Prerequisite: High school biology with "C" or better, BIO 101 or BIO 110, or consent of instructor. College chemistry or equivalent is desirable.
- BIO 135 Introduction to Human Anatomy and Physiology (4-0) 4 hrs.**  
 A survey of the human body, with emphasis on basic physical and chemical concepts, anatomy, physiology, and embryology. Designed to meet the needs of students in certain allied health career programs.
- BIO 136 Introduction to Human Disease (3-0) 3 hrs.**  
 An introduction to the nature of human diseases, with emphasis on the functional disturbances within the body systems. Designed to meet the needs of students in certain allied health career programs.  
 Prerequisite: BIO 135, BIO 160 or consent of instructor.
- BIO 140 General Zoology (3-3) 4 hrs.**  
 Survey of animal kingdom based on theory of organic evolution, including morphology, histology, physiology, taxonomy, parasitology, embryology, and ecology.  
 Prerequisite: High school biology with "C" or better, BIO 101, or consent of instructor.
- BIO 150 Field Biology (2-4) 4 hrs.**  
 Emphasizes field and laboratory work with local soils, flora, fauna, their collection, identification and ecological relationships. Assists students in acquiring basic working knowledge in field work. Field work or field trips every class day, weather permitting. (NOTE: Offered in summer only.)  
 Prerequisite: BIO 120, BIO 140, or consent of instructor.
- BIO 160 Human Anatomy (3-2) 4 hrs.**  
 Introduces the anatomy of the human body, the following systems studies either regionally or systemically: integumentary, skeletal, articular, muscular, circulatory, lymphatic, nervous, respiratory, digestive, excretory, endocrine and reproductive. Includes some introductory histology. Specially designed for students in health careers, biology, and physical education.  
 Prerequisite: Academic average of "C" or better or consent of instructor.
- BIO 161 Human Physiology (3-2) 4 hrs.**  
 Physiological principles at the molecular, cellular, tissue, organ, and system level, as they pertain to the human organism. The following systems are studied in detail: skeletal, muscular, circulatory, nervous, digestive, respiratory, urinary, reproductive, and endocrine. In this course, special applications will be made to meet the needs of students in health careers, biology, and physical education.  
 Prerequisite: BIO 160.

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**BUILDING CODES AND ENFORCEMENT****BCE 101 Basic Construction for Building Codes (3-0) 3 hrs.**

Introduces materials used in building construction, their growth or manufacture, preparation and application. Emphasizes frame and masonry construction types, working drawings and structural details for code compliance.

**BCE 102 Basic Code Enforcement Techniques (3-0) 3 hrs.**

Introduces building inspection principles. Focuses on codes based on performance, plan review, permit issuance process, municipal zoning enforcement, inspection of single family dwellings, and inspection report writing.

Prerequisite: ENG 103 or consent of coordinator.

**BCE 103 Plumbing and Electrical Codes (3-0) 3 hrs.**

Introduces basic theory and code requirements for plumbing and electrical systems and their installation. Concentrates on procedures, practices, and layouts and code inspection problems for residential installations up to and including six unit dwellings.

**BCE 104 Basic Mechanical and Energy Conservation Codes (3-0) 3 hrs.**

Introduces the theory and code requirements for mechanical and energy conservation systems. Also covers procedures, layouts and safety principles for heating, cooling and ventilation systems. Will use actual code inspection problems for residential installations.

**BCE 201 BOCA Basic Building Codes (3-0) 3 hrs.**

Introduces principles and analysis of the BOCA basic building code, organization and arrangement of the BOCA basic building code with its regulations to construction of buildings and structures and the installation of fixtures and equipment.

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**CHEMISTRY****CHM 100 Chemistry for the Health Sciences (3-3) 4 hrs.**

Introduces basic concepts of inorganic, organic, and biochemistry. Emphasizes chemical principles applied to biological systems. Laboratory exercises apply theory to biological and consumer products. Especially designed for students in allied health sciences. Meets the prerequisite of the Nursing program.

**CHM 110 Fundamentals of Chemistry (3-3) 4 hrs.**

Introduces concepts of chemistry. Emphasizes the composition of matter, the periodic table, the chemistry of solutions, and chemical calculations. For students whose preparation does not permit enrollment in CHM 121 and CHM 131.

Prerequisite: Credit or concurrent enrollment in a "100" series mathematics course or equivalent.

- CHM 121 General Chemistry I (3-3)** **4 hrs.**  
Studies principles of atomic structure, bonding, stoichiometry, states of matter, and kinetic theory. Provides laboratory experience in volumetric, gravimetric, gas analytical methods, and in molecular weight determinations. Prerequisite: Two semesters of high school chemistry or CHM 110. Credit or registration in MTH 102 or equivalent.
- CHM 122 General Chemistry II (3-3)** **4 hrs.**  
Continues CHM 121. Principles of chemical kinetics, equilibria, thermochemistry, redox, descriptive chemistry of metals and non-metals, and an introduction to organic chemistry. Laboratory includes the theory and practice of qualitative analysis. Prerequisite: CHM 121.
- CHM 131 College Chemistry I (3-6)** **5 hrs.**  
Studies principles of chemistry including molecular, atomic, nuclear, and electronic theories of matter and their relations to the periodic table. Quantitatively treats oxidation-reduction, chemical thermodynamics, bonding, behavior of gases, kinetics, equilibrium and solutions. Emphasizes interpretation of laboratory data. Primarily for students in chemistry, chemical engineering, or physical sciences. Prerequisite: Two semesters of high school chemistry with at least a "B" average or at least a "B" in CHM 110. Credit or registration in MTH 103 or equivalent.
- CHM 132 College Chemistry II (3-6)** **5 hrs.**  
Continues CHM 131. Primarily for students in chemistry, chemical engineering or physical science curricula. Laboratory includes qualitative analysis. Prerequisite: CHM 131.
- CHM 201 Basic Organic Chemistry (3-3)** **4 hrs.**  
Survey of organic chemistry covering nomenclature, structure, reactions and synthesis of the major classes of organic compounds including hydrocarbons, alcohols, aldehydes, ketones, carboxylic acids, and amines. The laboratory includes experiments in distillation, crystallization, chromatography, extraction, synthesis, and analysis. Prerequisite: CHM 122 or consent of instructor.
- CHM 204 Organic Chemistry I (3-6)** **5 hrs.**  
Application of modern theories of electronic structures to the study of chemical and physical properties of organic compounds. Laboratory includes syntheses, qualitative organic analyses, IR and visible spectrophotometry, gas chromatography, thin-layer chromatography, polarimetry, and refractometry. Prerequisite: CHM 122 or CHM 132.
- CHM 205 Organic Chemistry II (3-6)** **5 hrs.**  
Continues CHM 204. Prerequisite: CHM 204.

**CHM 210 Quantitative Analysis (3-6)****5 hrs.**

Chemical methods applied in quantitative analysis, formation and properties of precipitates, theory of neutralization, basic procedures in gravimetric analysis, titrimetry.

Prerequisite: CHM 122 or CHM 132.

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**CHILD DEVELOPMENT****CCA 101 Introduction to Child Development Careers (3-0)****3 hrs.**

Introduction to history and application of child development principles in child care professions. Organization, structure, and cooperation of child development centers. Review of career opportunities.

**CCA 102 Child Development I (3-0)****3 hrs.**

Research and theory related to child development from conception through pre-school years. Professional application of principles and theory to programming for individual children and for children in groups. Field observations and discussion of professional practice.

**CCA 103 Child Development II (3-0)****3 hrs.**

In-depth study of human growth and development age nine through maturity. Major developmental processes of each stage: physical, social, emotional and intellectual. Relevance of theoretical knowledge to career in human development.

**CCA 209 Language Arts for the Young Child (3-0)****3 hrs.**

Techniques and methods for development of language skills in the young child. Included are techniques for stimulating discussion and improving vocabulary and speech in the child. A survey and critical analysis of prose and verse for children and techniques of story telling are included. The use of records for children will be taught.

**CCA 210 Creative Activities for Young Children (3-0)****3 hrs.**

This course acquaints the student with the variety of creative art materials and methods appropriate for use in programs for young children. The course includes firsthand experience with materials as well as opportunity for participation in use of these materials with children in the group situation. The place of art experience in the curriculum and the meaning of these experiences in the individual development of the child are stressed.

**CCA 214 Principles of Preschool Education (4-0)****4 hrs.**

Theory and practice of early childhood education in nursery school, day care centers, and primary grades. The course deals with curriculum, program planning, use of materials and equipment, role of teacher, techniques of classroom management, and meeting the needs of individual children in the group situation.

Corequisite: CCA 215.

**CCA 215 Children's Laboratory (1-5) 2 hrs.**

Intensive observation taken in conjunction with CCA 214 or CCA 218. Student will observe children three hours a week in a professional child service center. The student will fulfill class assignments while observing.

Prerequisite: Third semester standing.

Corequisite: CCA 214 or CCA 218.

**CCA 218 Assisting the Severely Handicapped (3-2) 4 hrs.**

This course is designed to acquaint the child development career worker with the growth and development of the severely handicapped child. Varieties of handicaps will be observed and defined. Lecture and actual participation in training methods. The child's needs in the community will be taught.

Prerequisite: PSY 101 or concurrent enrollment.

Corequisite: CCA 215.

**CCA 219 Psychology of Exceptional Children (3-0) 3 hrs.**

This course is designed for parents and for teachers responsible for programming for exceptional children individually and in groups. Classification of exceptional children. The course reviews special needs and specialized educational approaches for exceptional children.

Prerequisite: PSY 101.

**CCA 220 Child Development Practicum Internship (3-15) 6 hrs.**

This course places the student as a participant in a child care center. The student will utilize, under supervision, the skills and techniques which have been learned in specialized methods courses. In addition to field work, the student will meet each week for conferences, reports, reports of supplementary reading, and discussion of problems.

Prerequisite: Fourth semester standing or consent of coordinator.

**CCA 221 Workshop in Early Childhood Education (3-0) 3 hrs.**

Suggestions for experiences suitable for the preschool and early primary child. The course will be directed to new media, construction of teacher-made materials, and trends and issues in preschool education.

**CCA 225 Mental Health in Child Development (3-0) 3 hrs.**

Self-analysis. Personal characteristics and their effects on adult-child interaction. Problems of discipline; aggression, passivity, over-activity of young children and adult coping strategies. Available referral resources in the community for children and families who need help.

Prerequisite: PSY 101.

**CCA 230 Movement and Rhythms for the Young Child (3-0) 3 hrs.**

Essential movement for preschool children taught with manufactured and homemade equipment, rhythms on playground and in classroom; and introduction to methods and materials appropriate for use in music programs for young children.

**CCA 252 Child-Family-Community (3-0) 3 hrs.**

Interrelationship of social groups and institutions within the community and their effect on the child. Effect of ethnic and cultural composition upon family life and individuals. Other topics include alternate family styles, families in crisis, community resources and legal responsibility of teachers with respect to social problems.

**CCA 253 Administration of Early Childhood Programs (3-0) 3 hrs.**

Establishment and operation of a preschool center; bookkeeping, licensing procedures, building and safety codes, insurance, transportation, interaction with staff, evaluating procedures, utilizing community resources.

**CCA 260 Teacher Aide (3-15) 6 hrs.**

The student teacher aide will gain experience by being placed in a public school under the direction of a certified teacher, school principal, and supervising instructor. A weekly seminar will present additional knowledge to the student in academic content areas.

Prerequisite: Consent of instructor.

Recommended corequisite: CCA 220.

**CRIMINAL JUSTICE****CRJ 101 Introduction to Criminal Justice (3-0) 3 hrs.**

History, role, development, and constitutional aspects of law enforcement and public safety. Review of agencies and functions involved in processes of administration of criminal justice.

**CRJ 102 Police Administration and Organization (3-0) 3 hrs.**

Principles of police administration and organization, functions and activities, records, communications, public relations, personnel and training, policy formation, planning, research, inspection, and control.

**CRJ 104 Introduction to Corrections (3-0) 3 hrs.**

This course provides the student with an integrated knowledge about the system through which the criminal offender is processed. Emphasis will be placed upon the philosophical bases of punishment and treatment techniques in institutional and community-based programs plus parole programs.

**CRJ 105 Criminal Courts of the U.S. (3-0) 3 hrs.**

This course provides the student with a broad body of knowledge concerning the court structures of the United States. The course will examine the historical development of the judicial branch of government, the role of the courts in the criminal justice system, levels of courts, and roles of persons employed in this unit of the Criminal Justice program.



- CRJ 110 Police Operations (3-0)** **3 hrs.**  
Administration of police line operations, including patrol, as basic operation of the police function, including investigation, traffic, juvenile, intelligence, and other special operational units. Manpower distribution, analysis of operations, enforcement policy, and operations during civil disorders and disasters.
- CRJ 116 Introduction to Forensics (3-0)** **3 hrs.**  
Introduces student to the use of scientific disciplines in crime investigation. Identifies the variety of sources of evidence and the means by which comparative analysis can be made. Introduces student to probability theory. Develops skills in crime scene technology, fingerprinting, photography, and recording.
- CRJ 201 Criminal Law I (3-0)** **3 hrs.**  
Principles of administration and criminal law, theory, history, and purpose. Substantive crimes and their punishment, rules of evidence, and general criminal procedures.
- CRJ 202 Criminal Law II (3-0)** **3 hrs.**  
Continues CRJ 201. Principles of arrest, search, and seizure; evaluation of evidence and proof including kinds, degrees, admissibility, and competence. Rules of evidence of particular importance at operational level in law enforcement. Courtroom and criminal trial procedures.  
Prerequisite: CRJ 201 or consent of coordinator.
- CRJ 203 Law and Society (3-0)** **3 hrs.**  
Focuses on the concept of law and its relationship to crime and the administration of criminal justice in a democratic society. Attention is directed toward the historical background of American law, social norms, criminal law, law and force, morals, justice, freedom, and custom. An examination of the functions of the executive, legislative, and judicial branches of government is made in relationship to law and the administration of criminal justice in present and future societal problems.
- CRJ 205 Juvenile Delinquency (3-0)** **3 hrs.**  
Organization, jurisdiction, and functions of juvenile agencies. Juvenile court movement, juvenile detention, processing, and treatment. Statutes and court procedures for juveniles. Problems of juvenile delinquency, theories of causation and prevention programs. Police responsibilities and contacts, current community, state, and federal prevention programs.
- CRJ 207 Vice and Drug Control (3-0)** **3 hrs.**  
Historical and sociological development of problems in drug addiction and vice control; fundamental understanding of narcotic addiction and effects of hypnotic drugs; the operation of lotteries, bookmaking and other types of gambling and prostitution as these factors are involved in the daily routine of police work.

**CRJ 208 Police Supervision (3-0) 3 hrs.**

Focuses on supervisory problems within a police organization, equating sound principles of human relations and supervisory techniques to effective police performance. Course includes the topics of morale and discipline motivation, authority and control, the supervisory process and its responsibilities, principles of communications, professional ethics, and the decision-making process.

Prerequisite: CRJ 101 and CRJ 102, or consent of coordinator.

**CRJ 209 Police Public-Community Relations (3-0) 3 hrs.**

Examines current issues in relationships between the police and the community, with emphasis on distinguishing between the concepts of public and community relations, problem areas of racial minority groups, juveniles, the adult criminal offender, the press, and the prevention of crime.

**CRJ 210 Introduction to Criminology (3-0) 3 hrs.**

The nature and extent of crime in American society, theories of crime causation, methods of crime control, and treatment of offenders.

Prerequisite: SOC 205.

**CRJ 212 Traffic Administration (3-0) 3 hrs.**

History and growth of traffic problems; organization for traffic control, accident investigation, and analysis and interpretation of accidents. Survey of traffic laws including the Illinois Vehicle Code.

**CRJ 213 Crime Prevention (3-0) 3 hrs.**

Crime prevention as a specific function of police service requiring inputs from both private and public interests. Explores deterrent reducing programs and introduces contemporary concepts of site-hardening and opportunity reduction. Examines the philosophy and organization structure of crime prevention units, their service targets and potential problem areas.

**CRJ 215 Alternatives to Confinement (3-0) 3 hrs.**

Study of formal and informal alternatives to custodial handling of offenders. Takes systems approach to examine traditional and contemporary offender diversion programs. Theories, objectives and the systematic consequences of change are examined.

**CRJ 216 Investigative Process (3-0) 3 hrs.**

Studies the art of investigation to reconstruct facts and circumstances of any event. Prepares students to plan and execute investigations commonly performed in civil and criminal work with concentration on obtaining direct evidence through interviewing, interrogation, observation and the use of documents and records.

- CRJ 226 Case Management (3-0)** **3 hrs.**  
Studies the investigative process from a supervisory and managerial perspective. Emphasizes means of assessing case priorities, resource allocation, performance evaluation, and the investigator's relationships with others influencing the successful completion and prosecution of criminal investigation.
- CRJ 250 Industrial Security Administration (3-0)** **3 hrs.**  
Organization and management of industrial security units including government security; protection of commercial and industrial manpower, facilities, and installations; security and police operations; administrative, legal, and technical problems; specialized programs for factories, railroads, retail stores, insurance firms, credit bureaus, etc.
- CRJ 252 Industrial Fire Protection, Disaster Control (3-0)** **3 hrs.**  
Administration of fire and accident prevention programs; development of policy, rules, and regulations; operations for fire and accident control; equipment facilities, inspections, investigations, and records. Special problems and hazards.
- CRJ 253 Safety Management (3-0)** **3 hrs.**  
Principles, responsibility, and procedures of management for controlling operations to provide safety in business and industry. Analysis of accident costs, organization and operation of a safety program, psychological aspects, physical conditions, and radiation hazards.
- CRJ 299 Criminal Justice Practicum (2-5)** **3 hrs.**  
Designed to provide students with a broad educational experience through appropriate observation and directed experience in operating segments of the criminal justice system. Students will be assigned to a criminal justice agency in addition to participation in a seminar.  
Prerequisite: Fourth semester standing or consent of instructor.

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## DATA PROCESSING

- DPR 101 Introduction to Data Processing (3-0)** **3 hrs.**  
The history, scope, and significance of data processing including the following areas: mechanical data processing, unit record data processing, and electronic data processing systems and equipment. Included in the section on electronic data processing will be a brief study of a rudimentary programming language where the student will write a series of elementary level case studies using the language.

- DPR 103 Key punching and Verifying (1-4) 3 hrs.**  
Development of high level of skill in programming and operating the IBM 029 keypunch and 059 verifier, including speed and accuracy in keypunching and verifying. Operating the IBM 129 keypunch is also included to introduce the student to newer techniques in keypunching.  
Prerequisite: Successful completion of a typing course.
- DPR 106 Computer Logic and Programming Technology (2-2) 3 hrs.**  
Familiarizes the student with the necessary tools to design efficiently the steps in a computer program. Includes advanced concepts of the BASIC programming language. Requires the students to code and debug their own sample cases. Also teaches documentation, problem analysis, decision tables, system flow-charting, basic logical programming routines, table utilization and file maintenance.  
Prerequisite: DPR 101 or concurrent enrollment.
- DPR 108 Computer Programming-COBOL (4-4) 5 hrs.**  
In-depth study of COBOL. Extensive laboratory experience in writing, testing, debugging, and documenting programs for business applications.  
Prerequisite: DPR 101 and DPR 106 with grade of "C" or better or consent of instructor.
- DPR 110 Computer Programming-Basic Assembler Language (4-4) 5 hrs.**  
Program writing, testing, debugging, and documentation using IBM S/360 assembler language. Extensive laboratory experience in planning, writing, and testing programs for typical business applications.  
Prerequisite: DPR 108 with grade of "C" or better or consent of instructor.
- DPR 135 Computer Operator (DOS) (1-4) 3 hrs.**  
This course will cover actual computer operations, giving the student experience in handling and setting up disk and tape file runs. He will also learn card reader and printer operations.  
Prerequisite: Concurrent enrollment in DPR 101 and DPR 106 and consent of instructor.
- DPR 137 Internship/Computer Operator Field Project (1-15) 3 hrs.**  
Provides students with coordinated computer operations or related experience in a data processing installation. Case studies will be used in the event that training stations are not available.  
Prerequisite: Consent of coordinator.
- DPR 140 Report Program Generator (RPG Programming) (2-2) 3 hrs.**  
Experience in writing, testing, debugging, and documenting programs for business applications using a report writing type language (RPG).  
Prerequisite: DPR 101 and DPR 106 with grade of "C" or better or consent of instructor.

**DPR 142 PL/1 Programming Language (2-2)****3 hrs.**

Programming techniques in the PL/1 language will be developed for a wide variety of problems of both a business and a non-business nature.

Prerequisite: DPR 101 and DPR 106 with grade of "C" or better or consent of instructor.

**DPR 150 Business FORTRAN (2-2)****3 hrs.**

Introduces FORTRAN IV as it is applied to general applications. Includes such programming projects as numerical, non-numerical and business-related uses of FORTRAN. Points out the advantages of FORTRAN over other compiler languages.

Prerequisite: DPR 101 and MTH 102, or consent of instructor.

**DPR 202 Programming Systems (3-1)****3 hrs.**

Indicates purpose and function of various programming systems such as program compilers, micro and macro generators, utility programs, sort/merges, and job control language.

Prerequisite: Grade of "C" or better in any of the following: DPR 108, DPR 110, DPR 135, DPR 142, or consent of instructor.

**DPR 203 Systems Analysis and Design I (3-0)****3 hrs.**

Functions and techniques of systems analysis, design, and development. Analysis of information flow, developing, organizing and using management data, establishing system specifications and equipment needs, and implementation of management information systems. Stresses methods and tools used in systems analysis and design.

Prerequisite: DPR 101 with grade of "C" or better and completion of or concurrent enrollment in ACC 101, or consent of instructor.

**DPR 204 Advanced Systems Analysis and Design (3-0)****3 hrs.**

Continues DPR 203. Advanced concepts in management information systems to extend the student's knowledge of the systems approach to problems in business and industry. Specific data processing systems as they relate to inventory control, production planning, finance, purchasing, and accounting will be presented. Source data automation, data capture equipment, time-sharing systems, and total integrated information systems concepts.

Prerequisite: DPR 203 with grade of "C" or better or consent of instructor.

**DPR 208 Computer Programming-Advanced COBOL (3-2)****4 hrs.**

Continues DPR 108. Course is intended to familiarize the student with COBOL programming for magnetic tape and magnetic disk using sequential, direct access and magnetic tape and magnetic disk using sequential, direct access and indexed sequential access methods under DOS. Overlay techniques and report writer will also be covered.

Prerequisite: DPR 108 with grade of "C" or better or consent of instructor.

**DPR 210 Computer Programming—Advanced Assembler Language (3-4) 4 hrs.**  
Continues DPR 110. Programming magnetic tape, random storage devices, and remote terminal systems. Includes use of IOCS for input-output devices.  
Prerequisite: DPR 110 with grade of "C" or better or consent of instructor.

**DPR 212 Programming for the Minicomputer (3-0) 3 hrs.**  
The objective of this course is to familiarize programmers with programming techniques for a minicomputer at the symbolic assembler language level. Emphasis will be placed on implementation of real time communication and control system applications. Lectures will include conceptual methods of implementation with student exercises in writing, testing, and debugging of program modules.  
Prerequisite: DPR 101, DPR 106, and DPR 110 or consent of instructor.

**DPR 230 Internship and/or Case Study (1-15) 3 hrs.**  
Application of data processing skills in practical situation. Field project or case study in local data processing installation. Open only to data processing degree candidates.  
Prerequisite: Fourth semester standing with a 2.0 or higher G.P.A. and consent of instructor.

**DPR 240 Advanced RPG II (2-2) 3 hrs.**  
Provides instruction in advanced concepts of the RPG language. Emphasis is on disk and tape applications involving multiple input and output files, tables, arrays and subroutines.  
Prerequisite: DPR 140 with grade of "C" or better or consent of instructor.

**DPR 250 Data Processing Math and Computer Statistics (4-0) 4 hrs.**  
Concepts of the use and interpretation of quantitative methods for data processing will be stressed. Topics will include classical and inferential statistics, probability concepts, theoretical distributions, correlation and regression analysis. The student will also be introduced to the use of gaming and simulation techniques as well as other elementary linear programming models.  
Prerequisite: MTH 102 and ECO 200, or consent of instructor.

## DENTAL HYGIENE

**DHY 100 Pre-Clinic and Orientation (2-6) 4 hrs.**  
Introduces the dental and dental hygiene professions and stresses development of a professional attitude. Provides basic exposure to a variety of dental subject matter, including all facets of oral prophylaxis. Applies theory practically in the dental hygiene clinic.  
Prerequisite: Freshman standing in Dental Hygiene.

**DHY 101 Clinical Dental Hygiene I (1-8) 5 hrs.**

Applies theoretical concepts in a clinical setting. Refines clinical skills and emphasizes the preventive aspects of dentistry. The student performs traditional dental hygiene clinical functions.

Prerequisite: DHY 100 and freshman standing in Dental Hygiene.

**DHY 111 Dental Radiology (2-2) 3 hrs.**

Theory of X-ray radiation, exposure and protection are pursued in the course. Film placement, intra-oral technique, extra-oral technique, darkroom procedures, film mounting and interpretation are covered in detail both didactically and in a practical application setting.

Prerequisite: Freshman standing in Dental Hygiene.

**DHY 130 Nutrition (1-0) 1 hr.**

The principles of nutrition in relation to good health with special emphasis on dental implications. The food needs of normal individuals of different ages and the selection of food for the maintenance of maximum health are stressed as well as the study of the basic nutrients and their oral relevance. Emphasis is placed on applied nutrition in dental practice—dietary counseling and analysis in relationship to dental caries and periodontal diseases.

Prerequisite: CHM 100 and freshman standing in Dental Hygiene.

**DHY 161 Dental Anatomy (2-3) 3 hrs.**

Studies the development, growth and function of human dentition and supporting structures. Emphasizes oral anatomy and its relationship to the structure of the head and neck. The student learns to recognize, describe and reproduce by drawings and carvings the structure of all natural tooth forms.

Prerequisite: Freshman standing in Dental Hygiene.

**DHY 190 Oral Pathology (2-2) 3 hrs.**

Studies fundamentals of microscopic and gross pathology and general pathological processes. Specially emphasizes diseases of dental and periodontal tissues and of the supporting oral structures. Correlates clinical manifestations of disease with dental hygiene practice.

Prerequisite: Freshman standing in Dental Hygiene.

**DHY 199 Introductory Periodontology (1-0) 1 hr.**

Introduces periodontics: the recognition, treatment and prevention of diseases affecting the periodontium. Covers definition, clinical characteristics, radiographic signs, histopathology, etiology, nutritional implications, prognosis, treatment, and patient education. Emphasizes the inflammatory periodontal conditions.

Prerequisite: Freshman standing in Dental Hygiene.

- DHY 200 Advanced Periodontology (1-0)** **1 hr.**  
Continues studying periodontal diseases. Emphasizes advanced treatment procedures and patient care.  
Prerequisite: DHY 199 and sophomore standing in Dental Hygiene.
- DHY 201 Seminar (2-0)** **2 hrs.**  
Practice administration, dental ethics and jurisprudence. Orientation in cost accounting and bookkeeping in dental office. Dental office policies and procedures, application of ethics in everyday practice, legal responsibilities of dentist and dental hygienist, jurisprudence, state dental laws governing the practice of dental hygiene.  
Prerequisite: Sophomore standing in Dental Hygiene.
- DHY 220 Community Dentistry I (2-2)** **3 hrs.**  
Introduces public health principles. Emphasizes community patterns of dental caries and periodontal diseases; dental delivery systems; third party payments; fluoridation and other preventive measures; and interpretation of dental research. Provides field experiences with geriatrics, handicapped, mentally retarded, and other community groups.  
Prerequisite: Sophomore standing in Dental Hygiene.
- DHY 221 Community Dentistry II (2-2)** **3 hrs.**  
Introduces principles of dental health education. Emphasizes communication skills and the development of learning strategies, classroom activities and visual aids for classroom and private office use. Provides field experience in classroom teaching.  
Prerequisite: Sophomore standing in Dental Hygiene.
- DHY 240 Dental Pharmacology and Anaesthesia (1-0)** **1 hr.**  
Basic dental pharmacopeia, uses of anaesthetics, antibiotics, analgesics, hypnotics, and handling of dental office emergencies.  
Prerequisite: Sophomore standing in Dental Hygiene.
- DHY 250 Clinical Dental Hygiene II (0-12)** **4 hrs.**  
Continues DHY 150.  
Prerequisite: Sophomore standing in Dental Hygiene.
- DHY 251 Clinical Dental Hygiene III (0-12)** **4 hrs.**  
Continues DHY 250.  
Prerequisite: Sophomore standing in Dental Hygiene.
- DHY 280 Dental Materials and Dental Assisting (2-2)** **3 hrs.**  
Introduction to operations performed, treatments given in dental office, chairside assisting, reception, and records. Materials used in restorative dentistry, prosthetic dentistry, and orthodontics, and their manipulation and application in dentistry. Product introduction and orientation.  
Prerequisite: Sophomore standing in Dental Hygiene.



**DHY 291 Dental Assisting (1-6)****2 hrs.**

Incorporates guest lecture series covering theory and demonstrations in operative dentistry, orthodontics, prosthodontics, oral surgery, endodontics, military dentistry, public health, and allied health services. Field experience through observation and participation in local dental offices, clinics, and military installations.

Prerequisite: Sophomore standing in Dental Hygiene.

**DIETETIC TECHNICIAN****DIT 100 Introduction to the Dietetic Technician Program (2-3)****3 hrs.**

Orientation to the program including the history of nutrition care services and role of the dietetic technician. Includes dietetic clinical laboratory practice in a local hospital.

Prerequisite: Freshman standing in program and concurrent enrollment in DIT 101, BIO 135 or BIO 160, FSM 114 and consent of coordinator.

**DIT 101 Basic Nutrition (3-0)****3 hrs.**

Introduces the principles of human nutrition and their application to the needs of normal individuals of all age groups.

**DIT 102 Advanced Nutrition (3-0)****3 hrs.**

Studies the nutritional care of a patient through the prescription of modified diets. Emphasis on techniques of diet counseling.

**DIT 110 Principles of Food Preparation (1-4)****3 hrs.**

Introduction to the scientific principles of food preparation; menu planning; marketing; meal preparation for individuals and families of varying economic and cultural backgrounds; use of available equipment in the home; age and health of meal planner. Attractive meal service included.

Prerequisite: FSM 114.

**DIT 150 Dietetic Clinical Laboratory I (1-6)****3 hrs.**

Offers integrated clinical approach to the nutritional care of patients in a community hospital. Provides practice processing diet orders, assisting patients with menu selection, checking meal trays, taking diet histories, making nutrient analyses, and giving diet instructions.

Prerequisite: DIT 100 and concurrent enrollment in DIT 102, BIO 102 or BIO 161, DIT 110 or consent of coordinator.

**DIT 200 Dietetic Clinical Laboratory II (1-9)****4 hrs.**

Supervised clinical experience in community agencies that include nutrition as one of their services. Assigned progression can include school lunch, day care centers, retirement centers, home-delivered meals, commercial processors, and hospitals.

Prerequisite: DIT 150 and consent of instructor.

- DIT 201 Nutritional Services in Institutions (3-0)** **3 hrs.**  
 Surveys institutions, agencies, and organizations that assist the community in meeting nutritional needs of its people. Studies nutritional needs of various age groups under different socio-economic conditions.  
 Prerequisite: Sophomore standing in program.
- DIT 202 Nutrition Care Seminar (2-0)** **2 hrs.**  
 Planning, implementing, and evaluating nutrition care given to individuals and groups of people having specific disease conditions, both acute and chronic.  
 Prerequisite: DIT 201.
- DIT 203 Dietetic Seminar (1-0)** **1 hr.**  
 Identification and discussion of the employment opportunities in the nutritional care field, roles of the dietetic technician, responsibilities of allied health professionals, and professional organizations.  
 Prerequisite: DIT 201.
- DIT 250 Dietetic Clinical Laboratory III (0-12)** **4 hrs.**  
 Offers student selected or assigned clinical laboratory experience in approved community agencies. Provides opportunity to reach entry-level position competence by practicing skills under the supervision of a registered dietitian.  
 Prerequisite: Sophomore standing in program, consent of coordinator, and concurrent enrollment in DIT 202 and DIT 203.

## ECONOMICS

- ECO 115 Consumer Economics (3-0)** **3 hrs.**  
 Consumer practices with emphasis on buying of investments, shelter, insurance, and basic commodities.
- ECO 200 Introduction to Economics (3-0)** **3 hrs.**  
 A descriptive rather than a quantitative approach to the study of economics. Major topics cover economic history, the elements of macro-economics, micro-economics, and a comparative look at other economic systems. Specifically designed for students in career-vocational curricula.
- ECO 201 Principles of Economics I (3-0)** **3 hrs.**  
 Economic problems faced by our society. Examination of resource allocation, national income, and economic development, from a macro-economic approach.
- ECO 202 Principles of Economics II (3-0)** **3 hrs.**  
 Continues ECO 201. Economic problems faced by the individual and the firm. Examination of market structures, price, and output determination. The micro-economic approach.  
 Prerequisite: ECO 201.

**ECO 210 Money and Banking (3-0)****3 hrs.**

Stresses the practical aspects of money and banking, and emphasizes the basic monetary theory needed by the banking student to apply his knowledge to his particular job. Historical treatment has been kept to a minimum. Emphasis is placed on such problems as economic stabilization, types of spending, the role of gold, limitations of central bank control, government fiscal policy, balance of payments, and foreign exchange, showing their repercussions on the banking industry in affecting yield curves and the structuring of portfolios.

Prerequisite: ECO 200 or ECO 201.

**EDUCATION****EDU 201 Introduction to Education (3-0)****3 hrs.**

Organization, structure, and operation of schools in the United States, including elementary, secondary, college, and adult education. Evaluation of each student's potential for this occupation.

**EDU 211 Educational Psychology (3-0)****3 hrs.**

Psychology principles as applied to education. Assessment of attitudes, capacities, interests, and achievements. Educational implications of physical, emotional, and social development. Student, teacher, school, and home as factors in educative process.

Prerequisite: PSY 101 or consent of instructor.

**ELECTRONICS****ELT 101 Circuits I, Resistive Circuit Analysis (3-4)****4 hrs.**

Resistive circuits with time-varying source voltage. Physics of electricity, plus units, definitions, symbols, and notations for electrical quantities. Circuit properties and their applications to significant circuit configurations.

Prerequisite: High school algebra or consent of instructor.

**ELT 102 Circuits II, Single Time Constant Circuits (3-3)****4 hrs.**

R-C and R-L single time constant circuits. Basic switching, circuitry, circuits with square-wave and step voltages as sources, and sinusoidal voltages as sources.

Prerequisite: ELT 101 or consent of instructor.

**ELT 103 Circuits III, Networks (3-4)****4 hrs.**

Networks that will not reduce to simple single time constant circuits. Only steady-state solutions considered, enabling use of S-plane in circuit analysis.

Prerequisite: ELT 102 or consent of instructor.

- ELT 105 Electro-Mechanical Drafting (1-6)** **3 hrs.**  
Drafting fundamentals and techniques with introduction to electronic and mathematical symbols, basic circuitry, electronic devices, and fabrication processes. This background culminates in the design and construction of an individual and a course project.
- ELT 110 Introductory Electronics (0-6)** **2 hrs.**  
Laboratory instruments, circuit components, basic measuring techniques, and basic circuits used as building blocks in any electronics system.
- ELT 111 Electronics I, Resistive (2-3)** **3 hrs.**  
Resistive circuits involving electronic devices. Volt-ampere characteristics and physics of diodes, transistors, and other semiconductor devices. The emphasis is upon biasing and the setting of DC levels to make the device function. Prerequisite: ELT 110 or consent of instructor.
- ELT 121 Automatic Vending Machine Repair I (1-3)** **2 hrs.**  
Introduces skills and knowledge needed to service automatic vending equipment. Emphasizes attitudes for successful job entry and advancement in the industry.
- ELT 122 Automatic Vending Machine Repair II (1-3)** **2 hrs.**  
Continues ELT 121 with emphasis upon current vending equipment and components. Emphasizes theory, demonstrations, and hands-on work on component parts. Prerequisite: ELT 121 or consent of instructor.
- ELT 123 Automatic Vending Machine Repair III (1-3)** **2 hrs.**  
Continues ELT 122 with trouble shooting of actual machines and real problems. Emphasizes rapid machine repair and timely service techniques. Covers late model machines and practice. Prerequisite: ELT 122 or consent of instructor.
- ELT 203 Electronics II, Pulse (3-4)** **4 hrs.**  
Electronic circuits in which electronic devices are operated in a switching mode. Practical circuits such as clippers, clampers, pulse formers, multivibrators, blocking oscillators, logic circuits, and sweep circuits are involved. Prerequisite: ELT 103, ELT 111, or consent of instructor.
- ELT 204 Electronics III, Advanced Electronics (3-4)** **4 hrs.**  
Electronic circuits in which vacuum tubes and transistors are operated in the linear region of their volt-ampere characteristic such that linear equivalent circuits can be applied in the analysis. Power supplies, amplifiers, feedback circuits, oscillators, modulation systems, and detectors. Prerequisite: ELT 103 or consent of instructor

**ELT 205 Electronic Instrumentation (3-4) 4 hrs.**

Methods of sensing and controlling physical industrial processes. Components involved are transducers, indicators, recorders, and controllers.

Prerequisite: ELT 203 or consent of instructor.

**ELT 206 Electronic Computers (3-4) 4 hrs.**

Principles of digital and analog computers. Operating techniques of digital and analog computers.

Prerequisite: ELT 203 or consent of instructor.

**ELT 207 UHF Communications and Reception (3-4) 4 hrs.**

Design techniques in UHF circuits, field theory wave equations, and antennas.

Prerequisite: ELT 203 or consent of instructor.

**ELT 210 Computer Programming (3-0) 3 hrs.**

Electronic technology involves the use of the computer as a special tool. This course introduces the basic necessary special tool. This course introduces the basics necessary to utilize three computer languages: BASIC, WATFIV and ECAP.

Prerequisite: MTH 106 or consent of instructor.

**ELT 215 Electrical Controls and Motors (3-4) 4 hrs.**

This course is designed to cover topics in the following areas: motor controls, switches (relays, thermostatic, limit, and solenoid), relay logic, AC and universal motors, residential and commercial service entrance, National Electrical Code, safety devices, and shop safety practices.

Prerequisite: ELT 110 or consent of instructor.

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**ENGINEERING****EGR 100 Introduction to Engineering and Technology (0-3) 1 hr.**

A laboratory experience course in which the student is introduced to engineering and technological techniques, methods, and design.

**EGR 120 Engineering Graphics I (0-6) 3 hrs.**

Graphical methods in mathematical calculations, including vectors, limit dimensioning, forces, tolerances, and nomography. Basic conceptual design through working drawings, assembly views, intersections, and developments.

Corequisite: Concurrent enrollment in EGR 100 or consent of instructor.

**EGR 121 Engineering Graphics II (0-6) 3 hrs.**

Graphical methods in orthogonal projections, developments, topographics, sketching, plotting, charts, and curves. Practical and theoretical analysis of common geometrical magnitudes of points, lines, planes, other surfaces, and pictorials.

Prerequisite: EGR 120.

**EGR 122 Graphical Display Systems (0-4) 2 hrs.**

Application of graphical principles applied to modern digital computers. Graphical output on current display devices. Application made to graphical display system.

Prerequisite: EGR 120 or consent of instructor.

**EGR 150 Analytical Mechanics (Statics) (3-0) 3 hrs.**

Resultants of force systems; algebraic and graphical conditions of equilibrium of force systems; analysis of forces acting on members of trusses, frames, etc.; forces due to friction, centroids.

Prerequisite: MTH 105.

**EGR 211 Analytical Mechanics (Dynamics) (3-0) 3 hrs.**

Displacement, velocity, and acceleration of a particle, relation between forces acting on rigid bodies and changes in motion produced, translation, rotation, plane motion, solutions using principles of force, mass and acceleration, work and energy, and impulse and momentum.

Prerequisite: EGR 150.

**EGR 212 Mechanics of Deformable Bodies (3-0) 3 hrs.**

Elastic and inelastic relationships between external forces (loads) acting on deformable bodies and stresses and deformations produced, tension and compression members, members subjected to torsion and to bending, buckling (columns), combined stresses, repeated loads (fatigue), energy loads, impact, and influence of properties of materials.

Prerequisite: EGR 150.

**EGR 215 Surveying I (2-3) 3 hrs.**

Use of transit and level, reading verniers and angles, linear measurement, extending straight lines, differential and profile leveling, simple transverse survey, computation, and keeping notes.

Prerequisite: MTH 104 or MTH 106.

**ENGLISH****CMN 097 Spelling Improvement (1-0) 1 hr.**

An individualized spelling improvement program for the student who needs assistance in developing adequate spelling skills. Carries no transfer credit.

**CMN 098 Vocabulary Development (1-0) 1 hr.**

An individualized vocabulary development program for the student who needs assistance in developing an appropriate vocabulary for college or career. Carries no transfer credit.

**CMN 099 Language Skills (3-0) 3 hrs.**

An individualized program for the student who needs assistance in developing language skills. Carries no transfer credit.

- CMN 100 Basic Sign Language (2-2)** **3 hrs.**  
Beginning course in the manual communication skills of finger spelling and sign language used by American deaf. Designed for students with no previous experience in sign language.
- CMN 101 Intermediate Sign Language (3-0)** **3 hrs.**  
Reviews basic sign language vocabulary and finger spelling with emphasis on developing skills in the simultaneous method; new vocabulary, intensive practice on finger spelling, numbers. Introduces receptive skills, and the translation of English idioms into sign.  
Prerequisite: CMN 100 or consent of instructor.
- CMN 200 Advanced Sign Language (3-0)** **3 hrs.**  
Reviews English idioms translated into sign. General overview of sign language idioms and their English counterparts; conversation building with emphasis on clarity, fluidity, accuracy and speed. Introduces the basic principles of interpreting in various settings with intensive practice in reverse interpreting.  
Prerequisite: CMN 101 or consent of instructor.
- ENG 099 Composition (3-0)** **3 hrs.**  
A course designed to meet the English requirement of some career programs and to prepare students for ENG 101. Emphasis is on development of basic composition skills. Carries no transfer credit.
- ENG 101 Composition (3-0)** **3 hrs.**  
A course in college composition emphasizing the organization and development of expository prose. Introduction to the critical reading of selected essays.  
Prerequisite: Satisfactory score on a placement test or ENG 099.
- ENG 102 Composition (3-0)** **3 hrs.**  
Continues ENG 101. Reading and writing of various types of prose. Introduces methods used in writing investigative papers.  
Prerequisite: ENG 101 or consent of associate dean.
- ENG 103 Report Writing (3-0)** **3 hrs.**  
Fundamentals of semantics, syntax, and rhetoric as applied to business, industrial, and governmental report writing.  
Prerequisite: ENG 101 or consent of associate dean or instructor.
- ENG 130 Business Writing I (3-0)** **3 hrs.**  
Formal and psychological aspects of business correspondence. Introduction to various kinds of business letters, memoranda, and reports. Improvement of grammar, spelling, and word usage.
- ENG 201 Advanced Composition (3-0)** **3 hrs.**  
Advanced skills in expository and argumentative writing.  
Prerequisite: ENG 102.

**ENG 220 Creative Writing (3-0)****3 hrs.**

Provides guided practice in various types of creative writing. Emphasizes skills common to creative expression including description, plotting, narration, dialogue, and verse.

**ENGLISH AS A SECOND LANGUAGE****ESL 098 English as a Second Language (2-0)****2 hrs.**

An individualized course in English as a Second Language for people with foreign language backgrounds who want to improve their ability to understand and speak the English language in preparation for regular college courses. Carries no transfer credit.

**ESL 099 English as a Second Language (2-0)****2 hrs.**

An individualized course in English as a Second Language for people with foreign language backgrounds who want to improve their ability to read and write the English language in preparation for regular college courses. Carries no transfer credit.

**FASHION DESIGN****FAS 101 Flat Pattern Design and Draping I (1-4)****3 hrs.**

Basic industrial techniques of pattern making combined with best features of draping. Variety of slopers (bodices, skirts, sleeves, etc.) developed. Accuracy and professional standards stressed. Patterns tested in muslin for fit. Prerequisite: Consent of coordinator.

**FAS 102 Flat Pattern Design and Draping II (2-4)****4 hrs.**

Further development of basic sloper set. Patterns tested in muslin for fit. Prerequisite: FAS 101 or consent of coordinator.

**FAS 103 Apparel Design and Construction I (1-4)****3 hrs.**

Basic principles of using master sloper set to develop patterns for original designs. Professional design room techniques. Prerequisite: Consent of coordinator.

**FAS 104 Apparel Design and Construction II (2-4)****4 hrs.**

Development of basic sloper set in patterns. Actual construction of finished garments. Emphasis on styling, fit, and professional finishing. Prerequisite: FAS 103.

**FAS 105 Fashion Design Illustration I (0-2)****1 hr.**

Basic fashion sketching—front, back, and side views. Relationship of figure and garment. Sketching of original design. Prerequisite: Consent of coordinator.



- FAS 106 Fashion Design Illustration II (0-2)** **1 hr.**  
Advanced fashion sketching, fabric rendering. Emphasis on development of individual style. Basic layout and presentation.  
Prerequisite: FAS 105 or consent of coordinator.
- FAS 107 Textiles I (0-2)** **1 hr.**  
Basic design and color principles in development of creative fabrics. General analysis and identification of fabrics. Study of various methods such as weaving, printing, and dyeing.  
Prerequisite: Consent of coordinator.
- FAS 108 Textiles II (0-2)** **1 hr.**  
Continues FAS 107. Contemporary fabrics analyzed and studied.  
Prerequisite: FAS 107.
- FAS 109 Micro Environmental Design (2-0)** **2 hrs.**  
Theory and principles of design for fashion and interior. The elements of design and color are covered. Developing the perception and awareness to judge good design and to analyze potential trends. The influence of present day cultural trends on the field of design.  
Prerequisite: Consent of coordinator.
- FAS 110 Micro Environmental Design II (2-0)** **2 hrs.**  
The elements of design and color in historical perspective. A survey of historical periods of design focusing on costume, interiors, and home furnishings. The influences on these periods of social, political, and economic forces. Patterns of change in design.  
Prerequisite: FAS 109 or consent of coordinator.
- FAS 201 Advanced Flat Pattern Design and Draping I (2-4)** **4 hrs.**  
Continued advanced development of basic sloper set, including coat and suit slopers, basics of grading (sizing). Patterns tested in muslin for fit and accuracy.  
Prerequisite: FAS 101 and FAS 102.
- FAS 202 Advanced Flat Pattern Design and Draping II (2-4)** **4 hrs.**  
Continues FAS 201.  
Prerequisite: FAS 201.
- FAS 203 Advanced Diversified Apparel Design I (2-4)** **4 hrs.**  
Development of patterns for the translation of original designs into completed garments. Visits to manufacturers, and speakers from industry.  
Prerequisite: FAS 104.
- FAS 204 Advanced Diversified Apparel Design II (2-4)** **4 hrs.**  
Continues FAS 203.  
Prerequisite: FAS 203.

- FAS 205 Tailoring Techniques I (0-4)** **2 hrs.**  
 Professional assembling procedures, details, and finishes. Particular emphasis on coats and suits.  
 Prerequisite: Consent of coordinator.
- FAS 206 Tailoring Techniques II (0-4)** **2 hrs.**  
 Continues FAS 205. Tailoring of original garments.  
 Prerequisite: FAS 205.
- FAS 209 Advanced Fashion Illustration I (0-2)** **1 hr.**  
 Work on a professional studio level—stressing individual approaches—work sketches as well as finished art. Fashion illustration as advertising, publicity, promotion, and display.  
 Prerequisite: FAS 106.
- FAS 210 Advanced Fashion Illustration II (0-2)** **1 hr.**  
 Continues FAS 209. Preparation of professional portfolio.  
 Prerequisite: FAS 209.
- FAS 212 Design Communication (2-0)** **2 hrs.**  
 Communication of design. Determining and interpreting consumer needs and motivations. Exploring the methods and techniques of educating the consumer and promoting good design through advertising, publicity, display, fashion shows, special events, employee development, etc.  
 Prerequisite: FAS 110 or consent of coordinator.
- FAS 229 Promotion of Fashion (3-0)** **3 hrs.**  
 The various techniques and media for methods to sell fashion. Emphasis on advertising: newspapers, magazines, direct mail, catalogs, radio and television. Playing important roles in sales promotion also will include: visual presentation in windows, interior displays and shops; special events, fashion shows and publicity. Analysis of practical creative assignments developed by the students.  
 Prerequisite: FAS 102 or consent of coordinator.
- FAS 230 Contemporary Living (3-0)** **3 hrs.**  
 Understanding of the social, economic, political and psychological forces that influence fashion. The shifting patterns and population profiles will be examined. The student will be involved in the world of fashion through visits to professional, civic, cultural and sports events. The consumer point of view of fashion in contemporary living will be observed by studying characteristics of Chicago and suburban stores. Fashions presented by these stores and those accepted by customers in their life styles of today will also be analyzed.  
 Prerequisite: FAS 102 or consent of coordinator.
- FAS 233 Fashion Seminar and Internship (1-15)** **4 hrs.**  
 Provides on-the-job experience and field study in the merchandising, promotion, and design fields as arranged with cooperating firms. Further study will be substituted for work experience when work sites are unavailable.  
 Prerequisite: FAS 102 or consent of coordinator.

**FAS 240 Communication (3-0)****3 hrs.**

Practice in various forms of business communication, both written and oral, to develop skills needed in presenting material related to fashion. Included will be exercises in learning how to speak effectively on a one-to-one basis, to groups and to salespeople; how to write concise material for advertising copy; how to prepare press releases, business letters, memos and reports; how to prepare fashion show commentary; how to prepare a job resume and to deal with interviewing techniques. This course will also cover grooming, poise and etiquette as further aids to communication. Role playing and other participative projects will be used, including producing of fashion shows illustrative of the talent of the students from the design classes.

Prerequisite: FAS 229.

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**FINE ARTS****FNA 111 History of Art I (3-0)****3 hrs.**

The history of art from 20,000 B.C. to 1400 A.D. A survey of the outstanding works of art produced by Western civilizations presented inseparably with the cultural backgrounds of civilizations from the prehistoric age to Gothic Italy. Recommended for art majors as a sequential course after ART 105.

**FNA 112 History of Art II (3-0)****3 hrs.**

The history of art from 1400 to 1890. A survey of the outstanding works of art produced in the Renaissance tradition presented inseparably with the cultural backgrounds of Western Europe from the Renaissance to Art Nouveau. Recommended prerequisite: FNA 111.

**FNA 113 History of Art III (3-0)****3 hrs.**

The history of art from 1900 to the present. An historical critical analysis of the "isms" of modern art both stylistically and ideologically as it relates to our own century.

Recommended prerequisite: FNA 112.

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**FIRE SCIENCE****FIS 101 Municipal Fire Administration I (3-0)****3 hrs.**

Organization and function for fire protection, personnel management, distribution of equipment, records, and fire safety problems.

**FIS 112 Fire Alarm and Extinguishing Systems (3-0)****3 hrs.**

The function, classification, and operating principles of fixed extinguishing systems, detection systems, alarm systems, signaling systems and portable extinguishing equipment installed for fire protection and fire prevention purposes.

- FIS 115 Construction Design and Fire Safety (3-0) 3 hrs.**  
Development of skills and competencies needed to recognize various types of building construction and materials. Emphasis on how materials react and their effects in fires; materials and techniques that provide a fire-safe environment.
- FIS 122 Fire Inspection Principles (3-0) 3 hrs.**  
Fundamentals of fire inspection organization including building construction, standard symbols, inspection maps, and inspection reports.
- FIS 132 Hazardous Materials I (3-0) 3 hrs.**  
A review of basic chemistry, storage, handling, laws, standards, and fire fighting practices pertaining to hazardous materials.
- FIS 133 Hazardous Materials II (3-0) 3 hrs.**  
A second semester course in hazardous materials covering storage, handling, laws, standards, and fire practices, with emphasis on fire fighting and control at the company officer level.
- FIS 201 Municipal Fire Administration II (3-0) 3 hrs.**  
Advanced course including records and fire safety problems, communications and fire alarm systems, legal aspects of fire protection.
- FIS 222 Fire Inspection Applications (3-0) 3 hrs.**  
Actual inspection of buildings to locate hazards and present recommendations for correction. Code application to various occupancies. Complete records, including maps, are submitted for each occupancy inspected.
- FIS 242 Fire Hydraulics (3-0) 3 hrs.**  
Review of basic mathematics, hydraulic laws and formulas as applied to the fire service, application of formulas and mental calculation to hydraulic problems, water supply problems, underwriters' requirements for pumps.
- FIS 245 Fire Causes and Investigation (3-0) 3 hrs.**  
Introduction to arson and incendiarism, arson laws, and types of incendiary fires. Methods of determining fire cause, recognizing and preserving evidence, interviewing and detaining witnesses. Procedures in handling juveniles, court procedure, and giving court testimony are covered.
- FIS 252 Automatic Sprinkler Systems (3-0) 3 hrs.**  
A practical analysis of the various types of automatic sprinkler systems, codes governing installation, system devices, and system design.
- FIS 262 Water Supply Analysis (3-0) 3 hrs.**  
A study of municipal water supply requirements, system design, and flow measurements for fire protection.

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**FOOD SERVICE MANAGEMENT****FSM 090 Basic Quantity Baking (0-20) 10 hrs.**

Basic training in the elements of quantity baking under the guidance of a master baker. Students will be exposed to the theory and "hands on" experience of baking through participation in the production of the college bake shop and discussion sessions.

**FSM 091 Advanced Quantity Baking (0-20) 10 hrs.**

Continues FSM 090. Emphasis on more advanced techniques of baking including cake decorating, hotel pastry, and display pieces.

Prerequisite: FSM 090.

**FSM 095 Basic Quantity Cooking (3-15) 10 hrs.**

Basic training in the elements of quantity food preparation under the guidance of a master chef. Students will be exposed to the theory and "hands on" experience of food preparation through participating in the production of the food service department and discussion sessions.

**FSM 096 Advanced Quantity Cooking (0-20) 10 hrs.**

Continues FSM 095. Emphasis on more advanced techniques of food preparation including culinary art and buffet work.

Prerequisite: FSM 095.

**FSM 111 Introduction to Food Service (2-0) 2 hrs.**

History and organization of food service hospitality industry including career opportunities in various food fields, organizational structures of food service establishments, and operational considerations and problems.

**FSM 112 Quantity Food Production (3-3) 4 hrs.**

Basic training in the theory and practice of quantity food preparation with emphasis placed on actual food preparation in the college kitchens under the guidance of master chefs and bakers.

**FSM 113 Quantity Food Service (0-10) 4 hrs.**

Theory and practice of food service including practical experience in college cafeterias, dining rooms, and catering service.

**FSM 114 Food Standards and Sanitation (3-0) 3 hrs.**

Function of food ingredients, evaluation of finished products including convenience food products and uses, food service sanitation standards, and procedures.

**FSM 115 Menu Planning (2-0) 2 hrs.**

Practical applications of nutrition as related to food service operations. Menu planning theory and methods for all types of food operations and special events; menu planning as a determination of food cost.

- FSM 130 Hospitality Law and Risk Management (4-0)** **4 hrs.**  
 Surveys our legal system as applied to the hospitality industry. Examines contracts, torts, and various labor laws pertinent to the industry. Analyzes insurance costs, including fire, accident, workmen's compensation, and employee liability, and their effect on various types of facilities.
- FSM 210 Hospitality Facility Maintenance (3-0)** **3 hrs.**  
 Focuses on the organization, duties and administration of a restaurant and lodging facility maintenance department. Discusses purchasing furniture, carpeting, linens, and supplies. Identifies and evaluates care and maintenance techniques of the areas serviced by a facility maintenance department.
- FSM 211 Purchasing and Storage (3-0)** **3 hrs.**  
 Standards and identification of quality meats, dairy products, produce, groceries, frozen foods, and supplies. Methods of purchasing, purveyor relations and proper storage techniques, and purchase standards for convenience foods.
- FSM 212 Food Service Supervision (4-0)** **4 hrs.**  
 A study of the theory and techniques of supervision as related to the food service industry.
- FSM 213 Seminar and Internship (2-15)** **4 hrs.**  
 Part of the credit for this course will be given for participation in a supervised cooperative work experience program in a college approved training station. Enrollment is restricted to sophomores in the Food Service Management program.  
 Prerequisite: FSM 212 or consent of instructor.
- FSM 214 Cost Control (3-0)** **3 hrs.**  
 Practical application and theory of various food and beverage cost control systems.
- FSM 215 Restaurant Layout and Equipment (3-0)** **3 hrs.**  
 Maximizing employee productivity through various types of food equipment and proper equipment arrangement. Effects of use of convenience foods on equipment planning.

## FRENCH

- FRN 101 Elementary French I (4-0)** **4 hrs.**  
 Beginning course in the language skills of listening, understanding, speaking, reading, and writing in their logical sequence. This course is designed for students with no previous experience in French.

**FRN 102 Elementary French II (4-0) 4 hrs.**

Continues FRN 101. Situational conversations in French; reading and writing stressed.

Prerequisite: FRN 101, one year of high school French, or consent of instructor.

**FRN 201 Intermediate French (4-0) 4 hrs.**

Conversation with emphasis on pronunciation, intonation, stress, and rhythm. Introduction to composition, reading of short stories, and grammar review.

Prerequisite: FRN 102, two years of high school French, or consent of instructor.

**FRN 202 Intermediate French (4-0) 4 hrs.**

Continues FRN 201. Accuracy and speed in reading, study of syntax, and extensive composition.

Prerequisite: FRN 201, three years of high school French, or consent of instructor.

**FRN 205 Intensive Oral Practice (3-0) 3 hrs.**

Conversational practice to develop oral facility; specially designed exercises in pronunciation, stress and rhythm. Individual readings of modern French works discussed in class. Written and oral compositions based on readings. This course is designed to help students bridge the gap between the intermediate and advanced levels.

Prerequisite: FRN 202 or equivalent, or consent of instructor.

**FRN 210 Introduction to Modern French Literature (3-0) 3 hrs.**

Reading of selected 20th century masterpieces. Introduction to poetry and "analyse de Texte." Oral readings stressing pronunciation and diction. Speaking based on discussions of works read. Writing based on readings and class discussion. This course is designed to help students bridge the gap between the intermediate and advanced levels.

Prerequisite: FRN 202 or equivalent, or consent of instructor.

**GEOGRAPHY****GEG 101 World Geography (3-0) 3 hrs.**

The economic, political, and cultural geography of the modern world. Raw materials, industrial resources, and trade connections related to war and peace.

**GEOLOGY****GEO 101 Physical Geology (3-2) 4 hrs.**

Materials, structure, and sculpture of the earth's surface. One-day field trip required.

- GEO 102 Historical Geology (3-2)** **4 hrs.**  
 Geological history of the earth including principles employed to reconstruct this history. One-day field trip required.  
 Prerequisite: GEO 101, high school earth science, or consent of instructor.
- GEO 201 Rocks and Minerals (3-2)** **4 hrs.**  
 Physical description of minerals and rocks. Introduction to crystallography, economic minerals, natural resources. Field trip required.  
 Prerequisite: GEO 101, CHM 121, or consent of instructor.
- GEO 202 Paleontology (3-2)** **4 hrs.**  
 Fossil record of life, principles of evolution and ecology. One-day field trip required.  
 Prerequisite: GEO 102, BIO 101, BIO 140 or consent of instructor.

## **GERIATRIC/HOME HEALTH CARE AIDE**

- GHH 101 Psychosocial Aspects of Caring for the Elderly (1-0)** **1 hr.**  
 Surveys psychological and sociological factors which affect aging and the care of the elderly. Examines cultural attitudes, societal roles and feelings of loss in emotional problems of aging, as well as the need for sexual role satisfaction and other services and facilities for the increasing number of aged.  
 Prerequisite: Admission into the Geriatric/Home Health Care Aide program.
- GHH 102 Basic Human Anatomy-Physiology and Medical Terminology (2-0)** **2 hrs.**  
 Surveys the basic structure and function of all human systems. Includes medical prefixes, suffixes and word roots that are essential for forming medical terms. Introduces the general disease process, factors influencing diseases, the aging process and selected common diseases of the aged.  
 Prerequisite: Admission into the Geriatric/Home Health Care Aide program or consent of instructor.
- GHH 103 Geriatric/Home Health Aide Skills (3-12)** **7 hrs.**  
 Provides knowledge and skills essential for the geriatric/home health care aide to assist the professional nurse in caring for patients in the home setting or long term care facility. Includes basic nursing skills related to skin care and hygiene, nutrition, elimination, ambulation, heat and cold applications and vital signs. Content and practice in cardiopulmonary resuscitation and clearing an obstructed airway meet the standards for rescuer recognition by the Chicago Chapter of the American Heart Association. Includes concurrent practice in long term care facilities and home care settings.  
 Prerequisite: Admission into the Geriatric/Home Health Care Aide program.



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**GERMAN****GER 101 Elementary German I (4-0) 4 hrs.**

Beginning course in the language skills of listening, understanding, speaking, reading, and writing in their logical sequence. This course is designed for students with no previous experience in German.

**GER 102 Elementary German II (4-0) 4 hrs.**

Continues GER 101. Situational conversations in German; reading and writing stressed.

Prerequisite: GER 101, one year of high school German, or consent of instructor.

**GER 201 Intermediate German (4-0) 4 hrs.**

Conversation, with emphasis on pronunciation, intonation, stress, and rhythm. Introduction to composition, reading of short stories, and grammar review.

Prerequisite: GER 102, two years of high school German, or consent of instructor.

**GER 202 Intermediate German (4-0) 4 hrs.**

Continues GER 201. Accuracy and speed in reading, study of syntax, and extensive composition.

Prerequisite: GER 201, three years of high school German, or consent of instructor.

**GER 205 Intensive Oral Practice (3-0) 3 hrs.**

Conversational practice to develop oral facility; specially designed exercises for improvement of pronunciation, stress, and rhythm. Individual readings of modern German works discussed in class. Written and oral compositions based on readings. This course is designed to help students bridge the gap between the intermediate and advanced levels.

Prerequisite: GER 202 or equivalent, or consent of instructor.

**GER 210 Introduction to Modern German Literature (3-0) 3 hrs.**

Reading of selected 20th century masterpieces. Introduction to poetry. Oral readings stressing pronunciation and diction. Speaking based on discussions of works read. Writings based on readings and class discussions. This course is designed to help students bridge the gap between the intermediate and advanced levels.

Prerequisite: GER 202 or equivalent, or consent of instructor.

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**HEALTH SCIENCE****HSC 110 Emergency Medical Technician Training (4-2) 5 hrs.**

This course, designed to train emergency medical technicians, covers all emergency care procedures short of those rendered by physicians or by allied medical personnel under direct supervision of a physician. The course emphasizes the development of student skills in recognition of symptoms of illnesses and injuries and proper procedures of emergency care. Reliance is heavily placed on demonstration and practice as a teaching method.

Prerequisite: Consent of instructor.

**HSC 112 Medical Terminology (2-0) 2 hrs.**

This course emphasizes the basic structure of medical words and includes prefixes, suffixes, roots, combining forms, and plurals. Pronunciation, spelling, and definition of medical terms. Emphasis will be on rendering a professional vocabulary required for work in the medical field.

**HSC 211 Clinical Procedures I (2-4) 3 hrs.**

An introduction to examination and treatment room procedures for the medical office assistant. The course will include sterilization techniques, principles of medication, and assisting the physician with examinations and minor surgical procedures. Emphasis will be placed on demonstration of clinical office skills.

Prerequisite: Consent of instructor.

**HSC 212 Clinical Procedures II (1-6) 3 hrs.**

This course is designed primarily for students in the Medical Office Assistant program. This course will include lectures, discussion, and practice with respect to basic medical laboratory procedures requested by physicians. Additional emphasis will be placed on reports, specimen collections, and specimen handling.

Prerequisite: Consent of instructor.

**HSC 213 Medical Law and Ethics (2-0) 2 hrs.**

This course will acquaint the medical office assistant with the legal and ethical responsibilities of the physician, patient, and medical office assistant in medical practice. Emphasis will be given to professional attitudes and behavior in the medical office assistant-patient-physician relationship.

**HSC 220 Health, Nutrition and Safety (3-0) 3 hrs.**

Basic habits to promote good health. Relationship of nutrition and routine to child's physical well-being. Using snacks and meals to establish good eating habits, planning curriculum to provide a proper balance of active and quiet periods. Developing safe, healthy environments.

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**HISTORY****HST 111 The American Experience to 1877 (3-0) 3 hrs.**

A survey of the American experience through the pre-revolutionary period, the expansion westward and the Civil War. Special stress is placed upon the social, economic, cultural, political and constitutional development of the United States.

**HST 112 The American Experience Since 1877 (3-0) 3 hrs.**

The end of Reconstruction to the present, with primary stress on political and economic development. Also includes social, intellectual and cultural phases, expanded role of government in national affairs, and the participation of the United States in international relations.

**HST 141 History of Western Civilization to 1815 (4-0) 4 hrs.**

Political, social, cultural, economic, and technological developments from prehistoric times to advent of 1789 French Revolution.

**HST 142 History of Western Civilization since 1815 (4-0) 4 hrs.**

Continues HST 141. Political, social, cultural, economic, and technological developments with emphasis on such socio-political-economic concepts as nationalism and social-Darwinism.

**HST 210 Women: The American Experience (3-0) 3 hrs.**

History of the status, roles, and contributions of women in America, and a survey of the attitudes and movements that have affected the lives of women in America.

**HST 214 The Afro-American and the American Experience (3-0) 3 hrs.**

In-depth study of American black from African slave trade through slavery, Reconstruction, years of neglect and Civil Rights Revolution in the United States and his contributions to American culture.

**HST 218 Illinois and Local History (3-0) 3 hrs.**

Surveys Illinois history from earliest times to the present day. Emphasizes the social and economic development of the Prairie state. Gives special attention to the local setting. Projects in local history will be encouraged.

**HST 243 The Far East in the Modern World (3-0) 3 hrs.**

The history of East Asia since 1800. The traditional cultures of China and Japan, the Western impact, and the Asian response will be covered.

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## HUMANITIES

**HUM 101 The Creative Nature of Man I (3-0)** **3 hrs.**  
Creative personality in Western tradition and the creative process with emphasis upon form, function, influence of the patron, and prevailing attitudes on music, literature, and art of representative periods. Lecture-demonstration, discussion, panels, and field activity.

**HUM 102 The Creative Nature of Man II (3-0)** **3 hrs.**  
Representative points of view regarding life and death in Eastern and Western worlds; problems in developing a coherent philosophy of one's own. Focus upon 20th century issues as reflected in contemporary art, music, and literature.

**HUM 110 Women and Creativity (3-0)** **3 hrs.**  
An exploration of the nature of female creativeness, focusing on women in the traditionally male arenas of art and literature and on areas in which the female creative impulse manifests itself under other names: the shaping of social attitudes, domestic arts, and religious experiences.

**HUM 115 International & Regional Studies in Humanities** **1-4 hrs.**  
Students travel with faculty to international or regional locations which may vary from year to year to study the humanities. May emphasize the literature, language, philosophy, or humane arts of the locale visited. Presentation by on-site individualized study, lectures, field trips. Classes held on campus prior to and following the off-campus learning experience. Travel expenses are paid for by the student.

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## INDEPENDENT STUDY

**IDS 290 Independent Study** **1-4 hrs.**  
Independent study is designed to permit the student to pursue a course of study not typically available under traditional course structure. The student will contract with the appropriate faculty member for the objectives to be accomplished in the course. May be repeated up to a maximum of 4 credit hours.

Prerequisite: Sophomore standing, "C" average, or consent of instructor.

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## INTERIOR DESIGN

**IND 101 Basic Interior Design I (2-6)** **5 hrs.**  
Surveys today's customer, elements in design of scale, balance and proportion, functional planning, visual sales presentation techniques, color, product sources, and applied principles of planning.  
Prerequisite: Consent of coordinator.

**IND 102 Basic Interior Design II (2-6) 5 hrs.**

Continues study and application of color planning, functional room analysis, pattern and texture. Introduces window treatments and accessories.

Prerequisite: IND 101.

**IND 103 Furniture History (3-0) 3 hrs.**

Surveys furniture, design motifs, and structures from antiquity to the present. Studies authentic designs and their relationship to contemporary applications and the basis for determining the taste level and quality of reproductions and adaptations on the market today, including current sources.

Corequisite: IND 101 or IND 102.

**IND 201 Advanced Interior Design I (3-6) 6 hrs.**

Concentrates on advanced planning and color, mixing styles of furniture, textiles, lighting, client analysis, and sales presentations. Introduces the home furnishings manufacturing field.

Prerequisite: IND 102; IND 103 with grade of "C" or better; and ART 121.

**IND 202 Advanced Interior Design II (3-6) 6 hrs.**

Details estimating wallcoverings, flooring, and draperies; construction, blueprint readings, budgeting; advanced portfolio preparation with professional critiques.

Prerequisite: IND 201.

Corequisite: MKT 106 and MKT 140.

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**JOURNALISM****JNM 130 Fundamentals of Journalism (3-0) 3 hrs.**

History and current role of the newspaper, emphasizing leads, stories, editorials, features and reviews, copyreading, and makeup.

**JNM 131 News Reporting and Writing (3-0) 3 hrs.**

Techniques of gathering and writing news in political, police, social, and civic coverage.

Prerequisite: JNM 130 or consent of coordinator.

**JNM 133 Feature Writing (3-0) 3 hrs.**

Stresses specialized newswriting emphasizing human element in the news. Presents techniques, story approaches for individualistic treatment. Examines newspaper and magazine procedures.

**JNM 134 Media Adjuncts (2-4) 4 hrs.**

Planning and production work in advertising, public relations, and publications –business, industrial, and consumer magazines.

**JNM 234 Mass Communication (3-0)** **3 hrs.**  
Impact of modern media, subtle and overt, on affairs of men. Influence of political, social, and commercial campaigns and trends on human beings in settings international, national, regional, and local.

**JNM 235 Copy Reading and News Editing (2-4)** **4 hrs.**  
Focuses on preparation of copy for newspaper publication. Incorporates headline writing, copy editing, treatment of story placement, and effective display of typographically pleasing makeup. A newspaper is prepared by the class.

Prerequisite: JNM 130 and JNM 131 or consent of coordinator.

**JNM 236 Radio and Television News (3-2)** **4 hrs.**  
Studies reporting and writing of broadcast news. Emphasizes broadcast style in all phases of newswriting and editing. A monthly radio newscast and a television newscast are prepared.

Prerequisite: JNM 130 and JNM 131 or consent of coordinator.

**JNM 237 Externship Study (2-15)** **5 hrs.**  
Practical reporting practice and observation in professional one-day-a-week assignments at newspapers, news bureaus, and television and radio newsrooms.

Prerequisite: Successful completion of three program semesters and consent of coordinator.

## LEGAL TECHNOLOGY

**LTE 101 Introduction to Legal Technology (3-0)** **3 hrs.**  
Survey of the functions of law; courts and lawyers in modern society; analysis of the origin, training, and role of the legal technician; professional responsibilities of the lawyer; outline of the fields and specializations within the practice of law; and instruction in legal research and writing upon a review of the sources and works of law.

Prerequisite: Consent of coordinator.

**LTE 102 Fundamentals of Legal Research (3-0)** **3 hrs.**  
Orients student to law library and a variety of legal publications, treatises, and other legal writings encountered in day to day practice of law. Emphasizes developing student capability to analyze, interpret and communicate facts, ideas and law through comprehension of legal research techniques.

Prerequisite: LTE 101 or consent of coordinator or instructor.

**LTE 103 Litigation (3-0)** **3 hrs.**  
Analysis of civil procedure and instruction in preparation of documents used in law suits, covering pre- and post-trial matters, evidentiary problems, and assistance during trials.

Prerequisite: LTE 101 or consent of coordinator or instructor.

**LTE 105 Family Law (3-0) 3 hrs.**

Examination of domestic relations law with emphasis on marriage, divorce, annulment, separation agreements, adoption, and other legal matters involving the family.

Prerequisite: LTE 101 or consent of coordinator or instructor.

**LTE 123 Real Property Law (3-0) 3 hrs.**

Provides historical study of common law estates and interests, and statutes. Emphasizes the role of and relationship between the attorney and the paralegal in preparing the more common types of real property transactions and conveyances, such as deeds, contracts, leases; drafting problems involving these various instruments; special research projects related to the subject matter; and a study of the system of recording and search of public documents.

Prerequisite: Consent of coordinator or instructor.

**LTE 200 Probate (3-0) 3 hrs.**

Survey of principles, history, and sources of probate law; examination of probate court forms and tax returns; and detailed instruction in gathering information and preparing documents for the paralegal assistant's supervising attorney.

Prerequisite: Consent of coordinator or instructor.

**LTE 201 Tort and Insurance Law (3-0) 3 hrs.**

Study of basic tort and insurance law principles; examination of insurance claim procedures and pleading forms used in litigation of various actions.

Prerequisite: LTE 101 or consent of coordinator or instructor.

**LTE 202 Estate Planning (3-0) 3 hrs.**

Examination of common forms of wills and trusts; survey of legal principles applicable thereto; and instruction in draftmanship of documents by the paralegal assistant for the supervising attorney.

Prerequisite: Consent of coordinator or instructor.

**LTE 203 Income Taxation I (3-0) 3 hrs.**

Detailed examination of federal and state income taxation as applicable to individuals, and instruction in preparation of returns and forms; survey of administrative and judicial procedures relative thereto.

Prerequisite: Consent of coordinator or instructor.

**LTE 204 Income Taxation II (3-0) 3 hrs.**

Detailed examination of federal, state, and local taxes with instruction in preparation of corporate, partnership, fiduciary, and other returns and forms.

Prerequisite: Consent of coordinator or instructor.

**LTE 206 Conference Course in Legal Technology (3-0) 3 hrs.**

Personalized study designed to provide advanced training in the student's specialty area.

Prerequisite: Consent of coordinator.

- LTE 210 Corporate and Securities Law (3-0)** **3 hrs.**  
 Prepares paralegal student to aid in incorporation, corporate record keeping and compliance with administrative regulations. This includes the understanding of statutes, rules, forms and releases pertaining to the principal acts administered by the Securities and Exchange Commission.  
 Prerequisite: Consent of coordinator.
- LTE 212 Law Office Systems (3-0)** **3 hrs.**  
 Study of law office management relying on the systems analysis approach to examine design, method and processes necessary for integrating the paralegal into the hierarchy of the organization of a law office with emphasis on defining functions of the lawyer, paralegal, and legal secretary.  
 Prerequisite: Consent of coordinator.
- LTE 220 Community Law (3-0)** **3 hrs.**  
 Development of skills and competencies needed to recognize legal problems and comply with the procedures relating to various government agencies. Emphasis will be on federal housing and landlord-tenant law; mental and civil commitments; welfare laws; labor law; social security law; and consumer protection law.  
 Prerequisite: Consent of coordinator.

## ASSOCIATE IN LIBERAL STUDIES

- ALS 100 Experiential Learning Portfolio Development (3-0)** **3 hrs.**  
 Examines and documents life experience related to college creditable skills and knowledge. Emphasizes portfolio development. Presentation by seminar or individualized study.  
 Prerequisite: Consent of associate dean.
- ALS 101 Business and Society (3-0)** **3 hrs.**  
 The liberal studies seminar in business is designed to provide maximum learning procedure flexibility to students in the form of an individualized study approach to the functional areas of business or a traditional approach in studying the role and function of business in contemporary society. Presentation of this course may be by lecture, seminar or individualized study.  
 Prerequisite: Consent of instructor.
- ALS 103 Human Communication (3-0)** **3 hrs.**  
 A Liberal Arts Division course to meet the requirements for the institutional associate in liberal studies degree. As part of the ALS contract, the student will contract with one or more division members for 3 hours of credit in the area of communications. Although the choice may be from among the division's current offerings, it is more likely that the student will create a unique educational environment. Presentation of this course may be by lecture, seminar, or individualized study.  
 Prerequisite: Consent of instructor.



**ALS 105 Engineering and Technology (3-0) 3 hrs.**

A seminar in which the student is introduced to the engineering and technological areas of the college, and some of the techniques used in these areas. Presentation of this course may be by lecture, seminar, or individualized study. Prerequisite: Consent of instructor.

**ALS 107 Humanities and Art (3-0) 3 hrs.**

A Fine Arts and Design Division course to meet the requirements for the institutional associate in liberal studies degree. The course may serve (1) as collateral to the HUM 101 or HUM 102 survey, or (2) as a contractual independent study program under the direction of one or more ALS advisors. Presentation of this course may be by lecture, seminar, or individualized study. Prerequisite: Consent of instructor.

**ALS 109 Environment Seminar (3-0) 3 hrs.**

Option 1: An analysis of man's role as an environmental modifier. Scientific, social, cultural, economic, and political influences on environment can be considered. The historical and current pollution problems, and other environmental disruptions can be analyzed and evaluated. Possible remedial courses of action can be discussed and evaluated. Presentation of this course may be by lecture, seminar, or individualized study.  
Option 2: Individualized laboratory research.  
Prerequisite: Consent of instructor.

**ALS 111 Energy and Society (3-0) 3 hrs.**

An interdisciplinary approach to the nature of energy as perceived by man through the sciences. Investigation into the utilization of energy and its effects of life patterns. Presentation of this course may be by lecture, seminar, or individualized study. Prerequisite: Consent of instructor.

**ALS 113 American Character (3-0) 3 hrs.**

The liberal studies seminar is designed to meet the needs of interested students who desire to expand their comprehension of man in American society. The approach will be topically integrated through the disciplines of the social sciences. The material to be presented will be mutually agreed upon by the faculty and students. Specific topics will vary each semester. The method of evaluation will be based upon the presentation of oral and written reports, subject to criticism by the participating faculty and students. Presentation of this course may be by lecture, seminar, or individualized study. Prerequisite: Consent of instructor.

**ALS 115 Critical Reading and Thinking (3-0) 3 hrs.**

Examines patterns of clear thinking and application of such patterns by writers to different kinds of reading material. Presentation will be by lecture, seminar discussion, individual conference and independent reading projects.

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**LITERATURE**

- LIT 105 Poetry (3-0) 3 hrs.**  
Analysis and appreciation of poetry of many periods. Diction, themes, symbols, images, rhythm, and meter.
- LIT 110 Drama and Film (3-0) 3 hrs.**  
Analysis and appreciation of representative plays and films of various eras. Attention to origins and trends. Material read as literature. See SPE 111 for theatrical study of drama and film.
- LIT 115 Fiction (3-0) 3 hrs.**  
Novel and short story. Structural analysis, understanding, and appreciation of various types. Individual sections may concentrate on particular periods of topics, e.g., science fiction, fiction of alienation. Consult registration materials for any given semester.
- LIT 206 World Literature to 1800 (3-0) 3 hrs.**  
Selected works of universal significance contributed by peoples and civilizations from ancient times to 1800.
- LIT 207 World Literature since 1800 (3-0) 3 hrs.**  
Continues LIT 206. Selected works of universal significance contributed by peoples and civilizations from 1800 to the present.
- LIT 216 Science Fiction (3-0) 3 hrs.**  
Surveys science fiction short stories and novels. Considers science fiction as popular literature and assesses its unique contribution to the history of ideas.
- LIT 217 Detective and Mystery Fiction (3-0) 3 hrs.**  
Presents detective and mystery fiction from its beginnings to the present. Includes long and short works representing the various types of mystery fiction. Examines the literature's contributions to and influences upon contemporary popular fiction.
- LIT 221 American Literature from Colonial Days to Civil War (3-0) 3 hrs.**  
American literature as an expression of American life through early social and political documents, novels, short stories, and poems.
- LIT 222 American Literature from the Civil War to 1914 (3-0) 3 hrs.**  
American prose and poetry to the turn of the century, including regional literature, literary journalism, criticism, and social and historical novels. Established criteria for judging American literary output.
- LIT 224 Women in American Literature (3-0) 3 hrs.**  
A study of women authors in American literature and the presentation of women in literature by American authors.

**LIT 231 English Literature to 1800 (3-0)** **3 hrs.**  
 Survey of English writers from beginning of English literature to 1780. Reading and interpretation of writers such as Boswell, Chaucer, Congreve, Donne, Dryden, Johnson, Jonson, Malory, Milton, Pope, and Swift.

**LIT 232 English Literature 1800-1914 (3-0)** **3 hrs.**  
 Survey of English writers from Romantic Period to World War I. Reading and interpretation of such writers as Austen, Browning, Byron, Conrad, Dickens, Hardy, Keats, Shaw, Tennyson, and Wordsworth.

**LIT 241 20th Century British and American Literature (3-0)** **3 hrs.**  
 Survey of important writers and writings in British and American literature since World War I.

## MANAGEMENT

**MGT 111 Introduction to Business Organization (3-0)** **3 hrs.**  
 Nature of business and the environment in which it operates. Forms of business ownership, introduction to operative and facilitating facets of business operation, management, marketing, accounting, statistics, business law, finance, investments, insurance, and labor-management relations.  
 (Formerly BUS 111)

**MGT 150 Business Math (3-0)** **3 hrs.**  
 Arithmetic as a tool of business. Topics include fractions, decimals and percentages, computations of interest, bank discounts, depreciation, commissions, compound interest, payrolls and taxes, and graph and chart design.  
 (Formerly BUS 150)

**MGT 154 Small Business Management (3-0)** **3 hrs.**  
 Organization and operation of the small-scale retail, trading, service or manufacturing business. Location, financing, marketing, labor, accounting, and in the case of manufacturing, production, plus related problems of stock control, taxes, and insurance.  
 Prerequisite: MGT 111 or consent of instructor.  
 (Formerly BUS 154)

**MGT 160 Principles of Supervision (3-0)** **3 hrs.**  
 An introductory course dealing with the responsibilities of the first or second echelon supervisor in either the industrial or administrative environment. Leadership qualities, human relations skills, motivation, communications, training techniques, and problems of the work group are discussed.  
 (Formerly BUS 160)

- MGT 167 Records Management (3-0)** **3 hrs.**  
This course consists of the study and analysis of what records to keep, how to store them, how to find them quickly when needed, and how to apply the criteria for determining their disposition or retention.  
(Formerly BUS 167)
- MGT 168 OSHA Standards and Compliance Procedures (3-0)** **3 hrs.**  
Development of skills and competencies needed in instituting proper occupational safety and health environment in commercial and manufacturing business establishments for compliance with federal OSHA standards.  
(Formerly BUS 168)
- MGT 170 Principles of Individual Financial Planning (3-0)** **3 hrs.**  
Introduces investment principles, methods and opportunities of personal investments. The course deals with the markets, stocks and bonds, investment funds, and insurance with emphasis on starting a personal portfolio.
- MGT 218 Introduction to Finance (3-0)** **3 hrs.**  
Methods of financing business enterprises and their relationships to personal and company investment policies.  
Prerequisite: ACC 101 and MGT 111.  
(Formerly BUS 218)
- MGT 225 Applied General Statistics (3-0)** **3 hrs.**  
An introduction to both descriptive and inductive statistics. Collection of data; frequency distributions and measures of data; frequency distributions and measures of location (mean, median, mode); measures of variation; probability, theoretical distributions including sampling distributions, estimation, tests of hypotheses; correlation, regression analysis and index numbers; and time series.  
Prerequisite: MTH 124.  
(Formerly BUS 225)
- MGT 226 Elementary Quantitative Methods (3-0)** **3 hrs.**  
An introduction to the new field of quantitative methods as applied to business problems. The standard gamble, the payoff matrix, and problems of uncertainty and risk; formulating and defining business problems for quantitative solutions.  
(Formerly BUS 226)
- MGT 265 Personnel Management (3-0)** **3 hrs.**  
Personnel problems and labor relations. Employment techniques, wages and hours, job evaluation, training, rating, collective bargaining, pensions, and fringe benefits.  
Prerequisite: MGT 270 or consent of instructor.  
(Formerly BUS 265)

**MGT 267 Office and Administrative Management (3-0) 3 hrs.**

Application of fundamental management practices to administrative type work both in the "office" and throughout the organization. Planning, organizing, and controlling business services, systems and procedures, office automation, cost reduction, and human relations practices.

Prerequisite: MGT 270 or consent of instructor.

(Formerly BUS 267)

**MGT 270 Principles of Management (3-0) 3 hrs.**

Presents the theory and major functions of management and describes the role of the manager. Major concepts in organization are developed along with an understanding of the decision-making process and consideration of the human factor in management.

Prerequisite: MGT 111 or MGT 160.

(Formerly BUS 270)

**MGT 274 Industrial Management (3-0) 3 hrs.**

An introductory course in industrial management stressing operational problems. The characteristics of industrial enterprise, the problems of materials procurement, plant organization and layout, labor relations and personnel policies, efficiency techniques, automation, and production development are considered. Related problems of inventory control, quality control, production control, and budgetary control are included.

Prerequisite: MGT 270 or consent of instructor.

(Formerly BUS 274)

**MGT 275 Labor-Management Relations (3-0) 3 hrs.**

A course dealing with the processes and the framework that influence both the day-to-day and the long-run relationships between management and labor. The history of the union movement, collective bargaining, arbitration procedures, labor legislation, union organization, and the characteristics of the labor market are discussed.

Prerequisite: MGT 270 or consent of instructor. (Prior or concurrent enrollment in ECO 201 recommended.)

(Formerly BUS 275)

**MGT 280 Human Relations in Business (3-0) 3 hrs.**

Emphasizes a managerial and interpersonal relations process approach to problem solving, communication, and group dynamics. Specific treatment is given to managing change, appraisal and reward, solving communication problems, status need of the work force, understanding individuals, group dynamics, and reducing conflict.

Prerequisite: MGT 160 or MGT 270.

**MGT 291 Problems in Management and Supervision (3-0) 3 hrs.**  
 Provides the student with a logical integration of management principles with representative supervisory problems found in business firms. Emphasis is given to decision making. Case problems, simulation, and directed reading. Prerequisite: MGT 160 and MGT 270, or consent of instructor. (Prior or concurrent enrollment in ECO 201 recommended.)  
 (Formerly BUS 291)

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## **MARKETING**

**MKT 106 Merchandising of Furnishings and Softline Goods (3-0) 3 hrs.**  
 Focuses upon retailing of furnishings, apparel and other softline merchandise including the role and qualifications of the buyer and the influence of consumer preference. Includes budgeting by dollars and assortment, pricing strategy, managing assortments, the selection and promotion of merchandise, and the coordination of merchandising functions and processes.  
 (Formerly BUS 106)

**MKT 109 The Retail Food Distribution Industry (2-0) 2 hrs.**  
 The study of the mass retail food distribution industry with major emphasis on the supermarket. Topics to be included are history and economic development of retail food distribution, problems and practices in supermarket organization and management, current issues confronting the industry, and the future role of the retail food distribution industry.  
 (Formerly BUS 109)

**MKT 140 Salesmanship (3-0) 3 hrs.**  
 General salesmanship involving factors of successful selling of goods or ideas. Buying motives, sales psychology, customer approach, and sales techniques.  
 (Formerly BUS 140)

**MKT 141 Sales Management (3-0) 3 hrs.**  
 This course focuses on the responsibilities of the sales executive as he plans and evaluates sales activities as well as supervises a sales force. Attention is given to the administrative activities of sales managers at all levels with emphasis directed to the management of sales forces of manufacturers, service marketers, and wholesaling middlemen.  
 Prerequisite: MKT 140 or consent of coordinator.  
 (Formerly BUS 141)

**MKT 215 Supermarket Operations (3-0) 3 hrs.**  
 Operational aspects of the supermarket, including planning, organizing, and controlling the use of capital, personnel, equipment and facilities, work methods, departmental operations, store security, housekeeping, supply control, sanitation safety, scheduling, front-end management, cash control, and customer service.  
 Recommended prerequisite: MKT 109.  
 (Formerly BUS 215)

**MKT 216 Supermarket Merchandising (3-0) 3 hrs.**

Merchandising techniques as applied to the supermarket, including the store manager's merchandising responsibilities, analysis of profit centers, customer motivation, consumer dynamics, product information, space management in store sales, promotion and displays, inventory control, pricing, advertising, brand management, creative merchandising in specific departments, and increasing departmental as well as store sales and profits.

Recommended prerequisite: MKT 109.

(Formerly BUS 216)

**MKT 217 Advertising (3-0) 3 hrs.**

Purposes of advertising, how advertisements are prepared and delivered in media, and how effectiveness of advertising is measured and evaluated in relation to the selling and marketing process.

Prerequisite: MKT 245 or consent of instructor.

(Formerly BUS 217)

**MKT 240 Advanced Sales Skills (3-0) 3 hrs.**

This course is designed to further develop and refine sales skills established in previous course work and/or on-the-job experience. Through role playing and simulated sales presentations, opportunities will be offered to apply specific selling skills to various situations and product categories.

Prerequisite: MKT 140 or consent of coordinator.

(Formerly BUS 240)

**MKT 245 Principles of Marketing (3-0) 3 hrs.**

Principles and methods involved in distribution of goods and services. Role and functions of marketing institutions in business system. Product, price, promotion, and distribution channel policies.

Prerequisite: MGT 111. Prior or concurrent enrollment in ECO 200 or ECO 201 recommended.

(Formerly BUS 245)

**MKT 246 Industrial Marketing (3-0) 3 hrs.**

This course is designed to provide a comprehensive understanding of industrial marketing by analyzing concepts and techniques in each of the major functional areas of industrial marketing. Topics to be investigated would include market development, product planning, price competition, promotional strategies, customer relations and marketing logistics.

Prerequisite: MKT 245 or consent of coordinator.

(Formerly BUS 246)

**MKT 247 Consumer Buying Behavior (3-0) 3 hrs.**

Reviews and analyzes areas of consumer and organizational buying behavior that guide marketing management decisions. The focus of this course will be directed toward the application of concepts on buying behavior to specific functional areas of marketing management in both the industrial and consumer markets.

Prerequisite: MKT 245 or consent of coordinator.  
(Formerly BUS 247)

**MKT 250 Retailing (3-0) 3 hrs.**

Survey of types of retail institutions, including consideration of store location and organizational procedures, buying and merchandising practices, promotional and personnel policies.

Prerequisite: MKT 245 or consent of coordinator.  
(Formerly BUS 250)

**MKT 251 Retail Merchandise Management (3-0) 3 hrs.**

Emphasizes the nature and importance of retail merchandise management to the success of the retail firm. The buyer's role and activities are considered. Main thrust in the areas of merchandise assortment planning; models for merchandise management; retail pricing strategies and policies; and retail operating statement analysis.

Prerequisite: MKT 106 or MKT 250.  
(Formerly BUS 251)

**MKT 280 Marketing Problems (3-0) 3 hrs.**

Designed for the marketing mid-management major unable to participate in the sophomore internship phase of the curriculum. The focus of attention will be on the application of marketing skills and knowledge to marketing problems, case studies, projects, decision-making simulation, and independent study. This course should be one of the last courses taken in the sequence.

Prerequisite: Completion of six credit hours in marketing courses and consent of coordinator.  
(Formerly BUS 280)

**MKT 281 Marketing Management Seminar and Internship I (1-15) 3 hrs.**

Principles, practices, and areas of decision making relative to price, product, promotion, and distribution policies of various types of marketing organizations. Restricted to students in marketing management occupational programs. Part of the credit given for participation in supervised cooperative work experience in a college approved training station. One lecture hour per week for seminar.

(Formerly BUS 281)

**MKT 282 Marketing Management Seminar and Internship II (1-15) 3 hrs.**

Continues MKT 281.

Prerequisite: MKT 281 or consent of coordinator.  
(Formerly BUS 282)



- MKT 283 Marketing Management Seminar and Internship III (1-15)** 3 hrs.  
Continues MKT 282.  
Prerequisite: MKT 282 or consent of coordinator.  
(Formerly BUS 283)

## **MATERIAL MANAGEMENT**

- MAT 101 Fundamentals of Material Management (3-0)** 3 hrs.  
A survey course designed to provide an introduction and overview to the field of material management and physical distribution. Topics covered include production and inventory control, purchasing, transportation, warehousing and materials handling, order processing, communications, and problems and issues related to the field.
- MAT 120 Production Control Concepts (3-0)** 3 hrs.  
A course devoted to describing the development, scope, and objectives of production control. Specific attention will be given to scheduling, control, critical path, machine loading, materials requirements planning, and other techniques, functions, and activities which are implicit in this aspect of material management operations.  
Prerequisite: MAT 101 or consent of coordinator.
- MAT 121 Principles of Physical Distribution (3-0)** 3 hrs.  
A business course concerned with the movements of goods from production to delivery to distribution channel intermediaries. Attention is focused upon distribution channels, traffic management, warehousing, inventories, organization, control, and communication. Heavy emphasis is given to distribution system design and distribution system analysis.  
Prerequisite: MAT 101 or consent of coordinator.
- MAT 122 Inventory Control for Material Managers (3-0)** 3 hrs.  
An overview of the dynamics of managing inventory in the constantly changing industrial and commercial environment. Topics include forecasting sales and inventory requirements, computer applications to inventory control problems, building inventory models, simulation, and the relationships of inventory control to marketing management and production control.  
Prerequisite: MAT 101 or consent of coordinator.
- MAT 123 Traffic and Transportation (3-0)** 3 hrs.  
Overview of transportation systems and the impact on cost and service that each system provides. Examines costs in various modes and routings. Reviews operational aspects of the transportation function.

**MAT 124 Material Handling and Packaging (3-0) 3 hrs.**

A course designed to present material handling and packaging as tools for use in a total system of material management. Material handling concepts include palletization, containerization, conveyor systems, fully automated warehousing, and integrated production lines. Packaging is treated as a function with ramifications far beyond the mere protection of a product.

Prerequisite: MAT 101 or consent of coordinator.

**MAT 125 Purchasing (3-0) 3 hrs.**

Nature and importance of the procurement function in modern business organizations. Principles, tools, methods, and techniques employed for the acquisition of materials, supplies and equipment.

Prerequisite: MAT 101 or MKT 245.

**MAT 220 Advanced Production Control (3-0) 3 hrs.**

An advanced course building upon the concepts developed in MAT 120. Production forecasting, shop loading, capacity planning, shop floor control techniques, and short interval scheduling are considered, as well as job shop versus continuous flow systems. Further attention is devoted to materials requirements planning.

Prerequisite: MAT 120 or consent of coordinator.

**MAT 221 Distribution Center Operations (3-0) 3 hrs.**

An advanced course building upon the concepts developed in MAT 121. Concepts of warehousing, location strategies, and techniques. Administrative aspects, including order processing, recordkeeping, computerization, and control, will be covered. Includes a project on warehousing layout and design.

Prerequisite: MAT 121 or consent of coordinator.

**MAT 223 Transportation Law (3-0) 3 hrs.**

An examination of the law especially as it pertains to transportation-related activities. Topics include bills of lading, claims, rate structures, storage in transit, private carriage, contract carriers, and import/export operations.

Recommended prerequisite: MAT 123.

**MAT 224 Advanced Material Handling and Warehousing (3-0) 3 hrs.**

Continues MAT 124. Material handling ramifications for warehousing, shipping, and receiving operations are considered. Plant layout, facility layout, automated warehousing, and equipment (mobile, racks, conveyors, and other specialized types) are considered.

Prerequisite: MAT 124 or consent of coordinator.

**MAT 225 Practice of Regulatory Agencies (3-0) 3 hrs.**

A course describing the history and practices of regulatory agencies impacting upon the transportation field. The structuring of rates and tariffs is also considered.

Recommended prerequisite: MAT 123.

**MAT 226 Material Requirements Planning (MRP) (3-0)** 3 hrs.  
Computer-based Material Requirements Planning (MRP) systems, important to modern material management. Focuses on using MRP systems to reduce inventories, set priorities, initiate orders, purchase requirements, and develop master production schedules.

Prerequisite: MAT 122 or consent of coordinator.

**MAT 228 Finance for Material Managers (3-0)** 3 hrs.  
A course blending managerial accounting concepts pertinent to material managers with distribution cost analysis techniques. Factors influencing capital outlay decisions such as ROI, present value, make or buy, depreciation, and tax considerations are considered.

Prerequisite: ACC 102.

**MAT 259 Advanced Purchasing (3-0)** 3 hrs.  
Continues MAT 125. Emphasis to be given to managerial aspects of purchasing, contract negotiation and administration, and speculative purchasing.

Prerequisite: MAT 125.

**MAT 280 Material Management Policy (3-0)** 3 hrs.  
A seminar-type course designed to integrate material management concepts developed throughout the Material Management sequence. Broad higher-level management concerns and current topics relative to the material management function are developed. Should be one of the last courses taken by Material Management majors.

Prerequisite: 11 credit hours in MAT course work or consent of coordinator.

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## MATHEMATICS

**MTH 094 Arithmetic (3-0)** 3 hrs.  
Review of standard arithmetic symbols and operations to establish meaningful recall of the number relationships. Includes study of the decimal system as well as theory and drill in addition, subtraction, multiplication, and division of whole numbers, common fractions, and decimal fractions. Percent, measurement, and problem solving may be included. Offered through the Learning Laboratory. Not recommended for students with previous algebra courses.

**MTH 095 Elementary Algebra (3-0)** 3 hrs.  
Signs, symbols, and operations needed for other courses in mathematics and science are introduced. Basic topics include: introduction to sets, signed numbers, linear equations, exponents, polynomials, factoring, graphing, and quadratic equations. Equivalent to first year high school algebra. May be offered through the Learning Laboratory. Not recommended for those who have passed high school algebra within the past five years.

**MTH 096 Geometry (3-0) 3 hrs.**

Concepts of Euclidean geometry, including lines, angles, polygons, and circles. Offered through the Learning Laboratory.

Prerequisite: One year of high school algebra with grade of "C" or better or MTH 095 with grade of "C" or better.

**MTH 102 Intermediate Algebra (4-0) 4 hrs.**

Introduces roots of quadratic equations, complex numbers, rational exponents, radicals, logarithms, inequalities, and the binomial theorem.

Prerequisite: MTH 095 and MTH 096 or equivalent.

**MTH 103 College Algebra (3-0) 3 hrs.**

Develops topics of functions, determinants, matrices, sequences, progressions, permutations and combinations. Introduces the theory of equations.

Prerequisite: MTH 102 or equivalent with grade of "C" or better.

**MTH 104 Plane Trigonometry (3-0) 3 hrs.**

Develops trigonometric functions and relations, solutions of triangles, complex numbers, identities, equations and applications.

Prerequisite: MTH 102 or equivalent with grade of "C" or better.

**MTH 105 Analytic Geometry (4-0) 4 hrs.**

Develops rectangular and polar coordinate systems, the straight line and conic sections. Introduces vectors, coordinate transformations, parametric equations and analytic geometry in three dimensions.

Prerequisite: MTH 103 and MTH 104 or equivalent with grade of "C" or better.

**MTH 106 Mathematics I (5-0) 5 hrs.**

Introduces topics in algebra, vectors, trigonometry, and problem solving by computer using FORTRAN or BASIC language. For students in Electronics Technology or Mechanical Engineering Technology.

Prerequisite: Two years of high school mathematics or consent of instructor.

**MTH 107<sup>\*</sup> Mathematics II (5-0) 5 hrs.**

Continues MTH 106 with additional topics in trigonometry, analytic geometry, logarithms, differential and integral calculus.

Prerequisite: MTH 106 with grade of "C" or better or consent of instructor.

**MTH 110 Laboratory Mathematics (3-0) 3 hrs.**

Develops techniques of mathematics and applies them to practical problems which arise in chemistry, life science, and the clinical laboratory.

Prerequisite: MTH 095 or equivalent with grade of "C" or better.

**MTH 120 Introduction to Modern Mathematics (3-0) 3 hrs.**

Introduces sets, logic, numeration systems, and probability. Reviews selected topics in algebra and geometry. A general education course in mathematics.

Prerequisite: MTH 095 and MTH 096, or equivalent with grade of "C" or better.

**MTH 124 Finite Mathematics (3-0) 3 hrs.**

Develops the mathematics of simple models in behavioral, social, and management sciences. Studies applications of set theory, vectors and matrices, linear programming, combinations, probability spaces, Markov chains, and game theory with computer assistance.

Prerequisite: MTH 102 with grade of "C" or better, or consent of instructor.

**MTH 134 Calculus for Social Scientists (4-0) 4 hrs.**

Develops an intuitive approach to concepts of differential and integral calculus. Applies these concepts to problems in social, behavioral, and management sciences. Not for physical science or mathematics majors.

Prerequisite: MTH 103, with grade of "C" or better, or consent of instructor.

**MTH 165 Elementary Statistics (3-0) 3 hrs.**

Introduces representation and analysis of data statistical inference, sampling distribution of means, regression and correlation analysis, and probability. Demonstrates use of statistics in education, business, natural and social sciences.

Prerequisite: MTH 102 with grade of "C" or better, or consent of instructor.

**MTH 201 Calculus I (5-0) 5 hrs.**

Studies differentiation of elementary and transcendental functions with applications to geometry, physics, and other sciences. Introduces the definite integral.

Prerequisite: MTH 105 with grade of "C" or better or high school equivalent.

**MTH 202 Calculus II (5-0) 5 hrs.**

Continues MTH 201 with emphasis on the definite integral. Includes techniques of integration, vectors, parametric equations, partial differentiation, multiple integration, and series, with applications for science and engineering.

Prerequisite: MTH 201 with grade of "C" or better.

**MTH 203 Linear Algebra (3-0) 3 hrs.**

Introduces vector spaces, linear dependence bases, and transformations using systems of linear equations, matrices and determinants. Studies geometric and physical applications.

Prerequisite: MTH 201 or concurrent enrollment, or consent of instructor.

**MTH 206 Mathematics III (3-0) 3 hrs.**

Continues MTH 107. Introduces differential equations and Laplace transforms. For students in Electronics Technology.

Prerequisite: MTH 107 with grade of "C" or better, or consent of instructor.

**MTH 208 FORTRAN Computer Programming (2-2) 3 hrs.**

Computer programming using the language FORTRAN.

Prerequisite: MTH 103 or MTH 107 with grade of "C" or better, or consent of instructor.

**MTH 212 Differential Equations (3-0)****3 hrs.**

Continues MTH 202. Emphasizes solutions of first order differential equations, linear differential equations, special second order equations, and series solutions. Studies selections from these topics: LaPlace transforms, Fourier series, numerical methods, and applications of matrix algebra.

Prerequisite: MTH 202 with grade of "C" or better.

**MTH 215 Introduction to Computer Science (3-0)****3 hrs.**

Computer arithmetic and error analysis, machine organization, storage and retrieval of data, numerical methods, data structures and problem analysis; numeric and non-numeric applications.

Prerequisite: Working knowledge of a programming language and MTH 103 or MTH 107. MTH 208 or comparable programming course is recommended preparation for this course.

**MECHANICAL ENGINEERING TECHNOLOGY****MET 101 Elements of Drafting (1-5)****3 hrs.**

Lettering, orthographic projection, dimensioning, auxiliary views, shop drawings, free-hand sketching, and methods of reproducing drawings.

**MET 102 Technical Drafting (1-5)****3 hrs.**

Lettering, orthographic projection, size and location, dimensioning, surface finishes, auxiliary views, sketching, diazo printing techniques.

Corequisite: EGR 100 or consent of instructor.

**MET 103 Descriptive Geometry (0-6)****3 hrs.**

Analysis of common geometrical magnitudes of points, planes, and curved surfaces. Includes rotations, auxiliary views, developments, and nomography. Applications of geometrical methods in projections, assemblies, and details.

Prerequisite: MET 102, MTH 106, or consent of instructor.

**MET 104 Statics (3-0)****3 hrs.**

Resultants of force systems; algebraic and graphical conditions of equilibrium of force systems; analysis of forces acting on members of trusses, frames, etc.; forces due to friction; centroids.

Prerequisite: MTH 106 or consent of instructor.

**MET 105 Basic Machine Shop (1-5)****3 hrs.**

Fundamentals of machine shop theory and practices. Familiarization with tools, equipment, and practices of tool, die, and precision metal working industries. Students make working tools and fixtures.

- MET 108 Manufacturing Processes and Materials (3-0)** **3 hrs.**  
Materials, principles, utilization, expectations, and evaluation of principle manufacturing processes. Manufacture of metals and alloys. Iron and steel types and classification systems. Machinability, cutting fluids, and power requirements. Elements of metrology. Production and facilities planning.  
Prerequisite: MTH 106 or concurrent enrollment, or consent of instructor.
- MET 110 Basic Welding (1-5)** **3 hrs.**  
Fundamentals of welding theory and practices. Includes equipment, set-up procedures and practice of oxyacetylene and electric arc welding techniques. Students will practice welding of various horizontal joints; butt; fillet; lap and tent.
- MET 111 Quality Control (3-0)** **3 hrs.**  
Techniques of establishing and maintaining quality of product, including statistical quality control applications.  
Prerequisite: MTH 107 or consent of instructor.
- MET 201 Mechanisms (3-3)** **4 hrs.**  
Fundamentals of displacement, velocity, and acceleration of rigid bodies as a basis for the study of the kinematics of mechanisms. Motion analysis of cams, gears, and linkages. Study of conjugate shapes and gear tooth development.  
Prerequisite: MTH 107 or consent of instructor.
- MET 202 Advanced Technical Drafting (1-5)** **3 hrs.**  
Orthographic considerations of mechanical and tooling systems, limit and tolerance dimensioning, sketching, product illustration, and assembly drafting presentations; tooling details, fixtures and jigs, and empirical data diagrams.  
Prerequisite: MET 102.
- MET 204 Strength of Materials (3-0)** **3 hrs.**  
Elastic and inelastic relationships between external forces (loads) acting on deformable bodies and stresses, and deformations produced; tension and compression members; members subjected to torsion and bending, buckling (columns); combined stresses; and influence of properties of materials.  
Prerequisite: MTH 107, MET 104, or consent of instructor.
- MET 205 Advanced Machine Shop (1-5)** **3 hrs.**  
Advanced application of machine shop theory and practice. Use of equipment such as lathes; O.D. and I.D. grinders; tool grinder; mills; and study of production machining, feed and speed application and quality control techniques are included.  
Prerequisite: MET 105 or consent of instructor.
- MET 206 Metallurgy and Heat Treatment (1-3)** **2 hrs.**  
Selected principles and concepts of physical metallurgy. Principles are applied to heat treatment of metals.  
Prerequisite: MET 108 or consent of instructor.

- MET 207 Machine Design (2-6)** 4 hrs.  
Design principles applied to machine elements with respect to size, shape, material, geometry, environment, and economy. Clutches, brakes, belts, chains, fasteners, gear shafts, and gears. Emphasis on principles and calculations necessary to determine fits, stresses, loads, deformations, economy, and finishes.  
Prerequisite: MET 201, MET 204, and MET 206.
- MET 209 Applied Digital Control (2-3)** 3 hrs.  
A study of the principles and techniques of digital control as applied to mechanical machines. Consists of topics such as control logic and algebra, control sensors and logic devices (both mechanical and electrical), and applications of elements to the solution of control problems.  
Prerequisite: MTH 107 or consent of instructor.
- MET 210 Advanced Welding (1-5)** 3 hrs.  
Advanced welding theory and practice. Includes discussions of equipment, setup procedures and practice of unusual positions in welding using oxyacetylene, electric arc, MIG and TIG techniques. Students will practice welding in various unusual positions on joints such as, Butt and Fillet, also practice welding pipe, and Bearing Journal Surfaces.  
Prerequisite: MET 110 or consent of instructor.
- MET 211 Process Planning and Tool Design (3-3)** 4 hrs.  
Selected topics in the control of the manufacturing process; the analysis and organization of manufacturing steps, operation sheets; the economics of industrial operations; economic justification of equipment purchase/lease; tool, fixture, and work place design.  
Prerequisite: MTH 106 and MET 108, or consent of instructor.
- MET 215 Fluid Power (3-0)** 3 hrs.  
Technology of the transmission and storage of energy by means of pressurized fluids, both compressible and incompressible.  
Prerequisite: MTH 107 and MET 104, or consent of instructor.

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## **MEDICAL LABORATORY TECHNICIAN**

- MLT 101 Medical Technology I (1-6)** 3 hrs.  
An introduction to the scope of hospital laboratory procedures. Instruments, such as the binocular microscope, analytical balance, and refractometer, are used in the study of blood and urine. Lectures and laboratory stress proper use of instruments in basic techniques.  
Prerequisite: Admission into the Medical Laboratory Technician program.



**MLT 102 Medical Technology II (1-6) 3 hrs.**

Teaches basic concepts and principles of chemical analysis of body fluids. Focuses on basic instrumental analyses performed in clinical chemistry.

Prerequisite: MLT 101.

**MLT 104 Principles of Clinical Microbiology (3-0) 3 hrs.**

A course in basic principles of clinical microbiology in which a survey of pathogenic bacteria, medical parasitism, and virology by site of infection and/or invasion will be covered. General schema for isolation and identification will be included.

Prerequisite: BIO 130.

**MLT 200 Medical Technology III (0-4) 2 hrs.**

An on-campus practice laboratory dealing with the application of principles of instrumental analysis.

Prerequisite: MLT 102 with grade of "C" or better.

**MLT 201 Medical Technology IV (3-30) 8 hrs.**

The methods of microbiology used in clinical medicine are stressed in lectures and "at the bench." Advanced techniques and automation in hematology and clinical chemistry are introduced.

Prerequisite: MLT 200 and BIO 130.

**MLT 202 Medical Technology V (3-33) 9 hrs.**

Continues MLT 201. Including studies of parasites, fungi, and viruses. Special techniques in clinical chemistry and blood coagulation are demonstrated. Basic techniques in histology are introduced. Review of all major subjects in preparation for the Medical Laboratory Technician registry examination.

Prerequisite: MLT 201.

**MUSIC****MUS 100 Introduction to Music Careers (1-0) 1 hr.**

Confronts issues relating to the successful pursuit of a career in music. Recommended for anyone pursuing a professional music career.

**MUS 101 Fundamentals of Music Theory (3-0) 3 hrs.**

Suitable for pre-teachers and non-music majors. Provides background to interpret and understand language of music through study of notation, rhythm, scales, intervals, triads, cadences, basic forms, and musical terms. Students prepared for study of harmony and for practical music activity.

- MUS 103 Survey of Music Experience (3-0)** **3 hrs.**  
 For non-music majors. Music from primitive to modern times through listening to outstanding examples of various periods, with explanations of content and structure. Vocal and instrumental works, examples of folk music, church music, and symphonic forms.
- MUS 104 Introduction to American Music (3-0)** **3 hrs.**  
 For non-music majors. Develops a stylistic frame of reference for judging popular music. Surveys characteristic elements of jazz, rhythm and blues, popular music, and their relation to western classical music.
- MUS 111 Theory of Music I (3-0)** **3 hrs.**  
 Intensive training in fundamentals of musicianship, principally with mechanical aspects of music—clefs, notation, scales, intervals, meters, rhythms, etc. Daily practice in sight singing, melodic, harmonic, and rhythmic dictation. Practice at keyboard.  
 Prerequisite: Successful performance on examination. MUS 101 or equivalent.  
 Corequisite: MUS 115.
- MUS 112 Theory of Music II (3-0)** **3 hrs.**  
 Harmony, counterpoint, and analysis, with emphasis on 18th and 19th century techniques; basic principles of art of musical composition. Written assignments, historical examples, individual research problems, and complete process of writing, preparing, and bringing to performance with voices and instruments specific individual and group projects in musical composition.  
 Prerequisite: MUS 111.  
 Corequisite: MUS 116.
- MUS 115 Ear Training, Sight Singing, and Keyboard Harmony I (0-2)** **1 hr.**  
 Practice in melodic, harmonic, and rhythmic dictation; sight singing; and practice at keyboard.  
 Corequisite: MUS 111.
- MUS 116 Ear Training, Sight Singing, and Keyboard Harmony II (0-2)** **1 hr.**  
 Practice in melodic, harmonic, and rhythmic dictation; sight singing; and practice at keyboard.  
 Corequisite: MUS 112.
- MUS 120 Introduction to Music Literature (3-0)** **3 hrs.**  
 A survey of the styles, periods, literature, and personalities in each of the commonly accepted music periods, with primary emphasis on hearing music of each style.
- MUS 130 Choir (0-3)** **1 hr.**  
 Mixed-voice chorus for average or above-average ability. Fundamentals of good choral diction and tone developed in choral works of various styles and types. May be repeated up to a maximum of 4 credit hours.  
 Prerequisite: Consent of instructor.

**MUS 136 Community Chorus (0-3)** **1 hr.**  
 Variety of choral experience including larger choral works such as oratorios and cantatas, and selection from grand opera, comic opera, and musical comedy. May be repeated up to a maximum of 4 credit hours.

**MUS 140 Band (0-3)** **1 hr.**  
 Open to all students proficient in playing of band instruments. Band music of various types and styles. Sight reading and musicianship stressed. May be repeated up to a maximum of 4 credit hours.  
 Prerequisite: Consent of instructor.

**MUS 145 Ensembles (0-3)** **1 hr.**  
 Ensembles such as string or vocal quartets, brass or voice ensembles, stage bands, madrigal groups, or other combinations. For students with advanced proficiency on an instrument or in voice. To further skills, musical understanding, and enjoyment. May be repeated up to a maximum of 4 credit hours.  
 Prerequisite: Consent of instructor.

**MUS 150 Orchestra (0-3)** **1 hr.**  
 Open to all students proficient in playing of orchestral instruments. Orchestral music of various types and styles. Sight reading and musicianship stressed. May be repeated up to a maximum of 4 credit hours.  
 Prerequisite: Consent of instructor.

**MUS 161 Woodwind Instrument Class I (1-2)** **2 hrs.**  
 For students who have had no experience playing an orchestral or band instrument, and for instrumentalists already proficient but who desire to play several instruments. May be repeated up to a maximum of 4 credit hours.

**MUS 162 Brass Instrument Class I (1-2)** **2 hrs.**  
 For students who have had no experience playing an orchestral or band instrument, and for instrumentalists already proficient but who desire to learn to play several instruments. May be repeated up to a maximum of 4 credit hours.

**MUS 163 Percussion Instrument Class I (1-2)** **2 hrs.**  
 For students who have had no experience playing an orchestral or band instrument, and for instrumentalists already proficient but who desire to learn to play several instruments. May be repeated up to a maximum of 4 credit hours.

**MUS 165 Class Piano (1-2)** **2 hrs.**  
 Similar to MUS 161. For students who desire a rudimentary knowledge of the keyboard and playing skills sufficient to cope with simple, practical situations. Emphasis on tonal notation, rhythmic notation, harmonization, transposition, sight reading, improvisation, ensemble playing, and basic piano literature.

**MUS 166 Class Piano (1-2)** **2 hrs.**  
 Continues MUS 165.  
 Prerequisite: MUS 165 or proficiency examination.

- MUS 167 Class Guitar (1-2)** 2 hrs.  
Similar to MUS 161. For students who desire to learn to play the guitar. May be repeated up to a maximum of 4 credit hours.
- MUS 168 String Instrument Class I (1-2)** 2 hrs.  
Similar to MUS 161. For students who desire to learn to play a string instrument. May be repeated up to a maximum of 4 credit hours.
- MUS 169 Class Voice (1-2)** 2 hrs.  
For students who have no refined skills in vocal technique and who desire to sing.  
Prerequisite: MUS 101.
- MUS 180 - 199 Minor Applied Music Subject (1-6)** 2 hrs.  
Instruction for those majoring in music education, musicology, and for those desiring to improve their skills on a particular instrument. One half-hour lesson per week. Minimum of six hours of practice per week. Jury examination required. May be repeated up to a maximum of 8 credit hours.
- Flute and Piccolo, 180; Oboe and English Horn, 181; Clarinet, 182; Bassoon and Contra Bassoon, 183; Saxophone 184; French Horn, 185; Trumpet, 186; Trombone, 187; Baritone, 188; Tuba, 189; Percussion, 190; Violin, 191; Viola, 192; Cello, 193; String Bass, 194; Harp, 195; Piano, 196; Organ, 197; Voice, 198; and Classical Guitar, 199.
- MUS 211 Theory of Music III (3-0)** 3 hrs.  
Harmony, counterpoint, and analysis.  
Prerequisite: MUS 112.  
Corequisite: MUS 215.
- MUS 212 Theory of Music IV (3-0)** 3 hrs.  
Harmony, counterpoint, and analysis.  
Prerequisite: MUS 211.  
Corequisite: MUS 216.
- MUS 215 Ear Training, Sight Singing, and Keyboard Harmony III (0-2)** 1 hr.  
Practice in melodic, harmonic, and rhythmic dictation; sight singing; and practice at keyboard.  
Corequisite: MUS 211.
- MUS 216 Ear Training, Sight Singing, and Keyboard Harmony IV (0-2)** 1 hr.  
Practice in melodic, harmonic, and rhythmic dictation; sight singing; and practice at keyboard.  
Corequisite: MUS 212
- MUS 223 Instrumental Literature (3-0)** 3 hrs.  
A survey of the music literature available for performance by musical instruments, excluding keyboard instruments and voice.

**MUS 224 Keyboard and Vocal Literature (3-0)** **3 hrs.**  
A survey of music literature available for performance by musical instruments and voice, including opera.

**MUS 265 Class Piano (1-2)** **2 hrs.**  
Continues development of skills begun in MUS 165 and MUS 166. Greater emphasis on keyboard harmony, ensemble playing, and jazz improvisation. Prerequisite: Two semesters of class piano or proficiency examination.

**MUS 266 Class Piano (1-2)** **2 hrs.**  
Continues MUS 265. Prerequisite: Three semesters of class piano or proficiency examination.

**MUS 280 - 299 Major Applied Music Subject (2-12)** **4 hrs.**  
Instruction for those desiring to become professional performers. One hour lesson per week. Minimum of twelve hours of practice per week. Jury examination required. May be repeated up to a maximum of 16 credit hours. Prerequisite: Successful audition.

Flute and Piccolo, 280; Oboe and English Horn, 281; Clarinet, 282; Bassoon and Contra Bassoon, 283; Saxophone 284; French Horn, 285; Trumpet, 286; Trombone, 287; Baritone, 288; Tuba, 289; Percussion, 290; Violin, 291; Viola, 292; Piano, 296; Organ, 297; Voice, 298; and Classical Guitar, 299.

## NUMERICAL CONTROL

**NMC 101 Introduction to Numerical Control (2-0)** **2 hrs.**  
Survey information on numerical control. Advantages and applications of numerical control. Tapes, tape coding, tape readers, and control system theories. Cartesian coordinate machine tool axis designations. Introduction to manual and computer programming for numerically controlled machines, techniques, and application of computers to monitoring conventional machine systems. Basic manual programming of point-to-point numerical control machines.

**NMC 105 Part Programming I (2-2)** **3 hrs.**  
Manual programming of point-to-point and contouring systems. Discussion and practice in programming of various manufacturers' equipment. Includes running programs on N/C lathe and mill.

**NMC 201 Numerical Controlled Machining (1-4)** **3 hrs.**  
Numerical control machines, with emphasis placed upon their application, maintenance, and justification. Practices in process planning, tooling, and fixturing techniques will be discussed and applied. Prerequisite: MET 105 or consent of instructor.

**NMC 214 Computer Graphics (1-4) 3 hrs.**

Numerical controlled drafting machine, with aid of computer, used to develop various phases of working drawings. Emphasis on phases of working drawings more efficiently done by graphic display equipment.

Prerequisite: MET 102 or consent of instructor.

**NMC 215 Part Programming II (2-2) 3 hrs.**

Programming for numerically controlled metalcutting machines using AD-APT. Student will utilize PATTERN, COPY, TRACUT AND LOOP features. Introduction to interactive N/C languages.

**NMC 216 Part Programming III (2-2) 3 hrs.**

Continues NMC 215. Advanced problems in APT and AD-APT using TRACUT, REFSYS, and TABCYL features, multi-axis contouring, and efficient use of the languages will be included.

Prerequisite: NMC 215.

**NMC 220 Special Problems (0-6) 3 hrs.**

Special projects in numerical control to strengthen specific areas of weakness. Projects to be arranged with instructor before registration.

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**NURSING****NUR 101 Nursing Fundamentals (4-15) 9 hrs.**

Study and practice of principles and fundamental nursing skills basic to the nursing care of patients of all age groups. Human needs basic to all individuals will be identified and assessed. Accomplishment of these fundamental skills in the simulated setting will precede application in the clinical setting.

**NUR 102 Nursing Care of Hospitalized Patients (4-15) 9 hrs.**

Study and concurrent practice of methods of nursing intervention for hospitalized patients of all ages. Discusses parenting and common physical health interferences on basic physical and emotional needs. Emphasizes skills needed to: (1) identify the effects of the patient's physical condition on his or her physical and emotional needs and those of the patient's family, and (2) assure implementation of the plan of care.

Prerequisite: NUR 101, PSY 101, and BIO 135 or BIO 160.

**NUR 103 Nursing Survey I (1-0)****1 hr.**

A survey of nursing roles including consideration of the following: evaluation of nursing; patterns of health care delivery; members of the nursing team; the relationship of the nursing team to the health team; ethical and legal responsibilities of all levels of nurses and the organizations which represent them; legal implications of licensure for practical and registered nurses; current world health problems as compared to health problems in this community; the need for continued education to maintain competence; and the responsibility of all nurses to become involved in community activities as educated persons.

**NUR 104 Nursing Field Experience (0-12)****4 hrs.**

The application of knowledge and skills obtained through the study of nursing and supportive courses to the direct care of patients with common physical health problems and emotional needs. Opportunity for experience as a member of a nursing care team, assuming the role and responsibilities of the practical nurse, under the supervision of an instructor, will be provided. The student will have opportunity to develop the technical skill required of the practical nurse in providing care for patients of all age levels with common health problems and emotional needs.

Prerequisite: NUR 102 and NUR 103, BIO 136 or BIO 161, and PSY 216.

**NUR 201 Advanced Nursing I (4-12)****8 hrs.**

Emphasizes the nursing process as it is utilized to assist individuals from a variety of age groups experiencing physical and/or psychological problems to their level of optimum wellness. Concurrent practicum will provide opportunity for the assessment of needs and the planning, provision and evaluation of direct patient care based on the needs identified.

Prerequisite: NUR 102, BIO 161, and PSY 216.

**NUR 202 Advanced Nursing II (4-12)****8 hrs.**

Theory and concurrent practice in the care of patients hospitalized for acute, chronic, or critical illness. Focuses on identifying subtle clues to unmet human needs, establishing priorities and their modification in a disaster, and developing an effective plan of care treating the patient both as an individual and as a member of a family. Develops communication skills and techniques of group dynamics in supervising and coordinating others in providing direct care to patients. Emphasizes the importance of the promotion of optimum wellness.

Prerequisite: NUR 201.

**NUR 203 Nursing Survey II (1-0)****1 hr.**

A survey of issues and responsibilities in nursing. Content will include: current trends in nursing and the implications for the registered nurse; provisions of the nurse practice act in the State of Illinois and other states; the legal implications of licensure as a registered nurse; ethical responsibility; self-development through continuing education and participation in nursing organization; and the responsibility of the nurse as an educated member of a community.

Prerequisite: NUR 103.

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**OPERATING ROOM TECHNICIAN****ORT 101 Operating Room Techniques I (6-0) 6 hrs.**

A study of the fundamentals of operating room techniques involving the principles of sterile technique in relation to the pre-operative, operative, and post-operative care of the surgical patient. Introductory principles of microbiology are included in relation to surgical asepsis.

Prerequisite: Admission into the Operating Room Technician program.

**ORT 102 Operating Room Techniques II (6-0) 6 hrs.**

Continues ORT 101. Provides the student with the principles and techniques used to prepare for and assist with common operative procedures within various surgical specialties. Included is the use of anesthesia and its effects on the surgical patient.

Prerequisite: ORT 101, ORT 111, HSC 112, and BIO 135 or BIO 160

**ORT 103 Operating Room Techniques III (0-4) 2 hrs.**

Continues ORT 102. Provides the student with the principles and techniques used to prepare for and assist with common operative procedures within the specialties of thoracic, cardiovascular, and neuro surgery. An introduction to nursing procedures related to care of the surgical patient is also provided.

Prerequisite: ORT 102, ORT 112, BIO 136 or BIO 161, and PSY 101.

**ORT 111 Clinical Hospital Practicum I (0-15) 5 hrs.**

Students will actively participate as members of the surgical team in local hospitals. Under supervision, they will develop the fundamental skills required of the operating room technician in the care of the surgical patient before, during, and immediately following surgery.

Prerequisite: Admission into the Operating Room Technician program.

**ORT 112 Clinical Hospital Practicum II (0-18) 6 hrs.**

Continues ORT 111. Students will participate as members of the surgical team in preparing for and assisting with common operative procedures within various surgical specialties. Supervised experience will be provided in emergency and out-patient departments for the observation of out-patient care.

Prerequisite: ORT 101, ORT 111, HSC 112, and BIO 135 or BIO 160.

**ORT 113 Clinical Hospital Practicum III (0-20) 7 hrs.**

Continues ORT 112. Students will observe and participate as members of the surgical team in preparing for and assisting with common operative procedures within the specialties of thoracic, cardiovascular, and neuro surgery. Supervised experience in performing certain basic nursing skills related to the surgical patient is provided.

Prerequisite: ORT 102, ORT 112, BIO 136 or BIO 161, and PSY 101.



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**PARK AND GROUNDS OPERATION MANAGEMENT****PKM 100 Introduction to Park Management (1-0) 1 hr.**

A survey course intended to introduce the student to the field of park and grounds operation management. Major emphasis directed toward the history of park development and the past and present concepts of recreation.

**PKM 101 Ornamental Plants (3-3) 4 hrs.**

Identification, growth habits, cultural requirements, and the use of ornamental shrubs, trees, vines, ground covers and herbaceous plants adapted to Illinois and the Midwestern area.

Prerequisite: PKM 111 or consent of instructor.

**PKM 102 Plant Diseases and Pests (3-3) 4 hrs.**

Identification, prevention and control of insects, diseases and pests significant to the turf, soils and plant materials found in parks and other landscape areas.

**PKM 110 Soil Science (3-3) 4 hrs.**

A study of the properties and use of soils in relation to plant growth and development. Special emphasis on soil texture, structure, moisture relations, biological activity, organic matter content and plant nutrients as they relate to park management.

**PKM 111 Basic Horticultural Skills (3-3) 4 hrs.**

An introductory course designed to develop specialized skills in ornamental horticulture. Major emphasis on balling and burlapping trees and shrubs, bare root planting, use of container-grown stock; propagation of plants by seed, layerage, budding and grafting; and discussion of plant disorders, care and use in parks.

Prerequisite: BIO 120.

**PKM 121 Facilities Management (2-3) 3 hrs.**

Details the management of park facilities, including buildings, swimming pools, play equipment, ice rinks, athletic fields and all surfaced areas within the jurisdiction of a park district. Fundamentals of plumbing, masonry and electricity in relation to the function of park structures and landscape installations.

**PKM 140 Grounds Equipment and Shop Operation (1-6) 4 hrs.**

A study of the operation, maintenance, selection, and care of equipment used in park management. Practical experience in the repair, adjustment and troubleshooting of engines and other specialized equipment.

**PKM 150 Park Management Internship (0-35) 5 hrs.**

An internship whereby the first year student can receive field training under the supervision of an experienced park administrator. First year students should receive training in several areas of park and grounds operation management in order to gain practical knowledge and experience in the field.

Prerequisite: Consent of instructor.

**PKM 210 Drainage and Irrigation (2-3)** **3 hrs.**  
Study of the design and installation of drainage and irrigation systems. Particular attention toward types of systems, materials and costs.

**PKM 212 Turfgrass Science (3-3)** **4 hrs.**  
Basic characteristics, soil requirements, environmental adaptation, propagation, and uses of turfgrass. Special emphasis on the establishment of grasses and their identification. The management of established turfgrasses, emphasizing the essential maintenance practices of fertilization, weeds and their control, mowing, aerification, verticutting, renovation, and spraying for disease and insect control. A study of business procedures essential to turfgrass managers including budgeting, recordkeeping, purchasing, and time studies.  
Prerequisite: PKM 110.

**PKM 214 Principles of Park Design and Construction (3-3)** **4 hrs.**  
Presents the fundamentals of construction as applied to landscape projects, the use of materials, installation techniques, tools, equipment, structures, surveying, and grading used in landscape construction. Basic drafting techniques and principles of landscape design.  
Prerequisite: PKM 101 and PKM 110.

**PKM 220 Arboriculture (1-6)** **4 hrs.**  
The care and management of ornamental trees. Techniques and demonstration of planting, staking, pruning, spraying, fertilizing and general care of shade and specimen trees. Instruction on the techniques of climbing and use of safety equipment, methods of bracing, cabling and guying of trees, cavity repair and surgical practices, and the organization and management of municipal street tree departments.  
Prerequisite: PKM 111.

**PKM 230 Contracts, Specifications, Estimating (2-3)** **3 hrs.**  
Emphasizes interpretation of maps, grading plans, construction drawings and landscape design plans especially specifications, cost estimates, and client relationships. Additional topics which deal with land use, land acquisition, park planning, and the legal aspects of park and landscape contracting.  
Prerequisite: PKM 214.

**PKM 240 Grounds Equipment Power Units (1-6)** **4 hrs.**  
Explains the operation, repair, servicing and preventive maintenance of power units, electrical systems, power trains, hydraulic systems and associated components commonly found on grounds equipment. Gives special attention to applied mechanical learning experiences similar to those a student can expect to encounter in a grounds equipment service operation.  
Prerequisite: PKM 140.

**PKM 241 Management of Ice Rink Facilities (2-3)** **3 hrs.**  
Techniques and procedures in managing ice rink facilities. Presents supervisory role in managing ice rink personnel, scheduling of facilities, budgetary responsibilities, and maintenance.

**PKM 242 Golf Course Management (3-3) 4 hrs.**

The planning, design, construction, operation and maintenance of golf courses, both public and private.

Prerequisite: PKM 121.

**PKM 245 Management of Aquatic Facilities (3-3) 4 hrs.**

The management and practical experience involved in the operation of swimming pools, ponds, lakes and similar bodies of water utilized in the recreation and park industry.

Prerequisite: PKM 121.

**PKM 250 Park Management Seminar (1-0) 1 hr.**

Discussions by representatives of the park, landscaping, turf, and related fields to provide the student with new management concepts and practices.

Prerequisite: 30 hours credit in PKM courses.

**PHILOSOPHY****PHI 105 Introduction to Philosophy (3-0) 3 hrs.**

Principles and problems of philosophy as seen in different schools of thought. Topics: validity of human knowledge; nature of reality; mind and body; free will and determinism; moral and aesthetic values; and religious belief.

**PHI 110 Logic (3-0) 3 hrs.**

Formal reasoning, including language and meaning, deduction and induction, evidence, and the detection of fallacies. Traditional as well as modern modes of analysis.

**PHI 115 Ethics (3-0) 3 hrs.**

Consideration of problems of value and conduct, including the question of the "good life" or happiness; and contemporary moral issues such as war, violence, drugs, racism, crime, and punishment.

**PHI 120 Social and Political Philosophy (3-0) 3 hrs.**

Conceptual and historical analysis of the ideas of justice, liberty, equality, authority, power, law, order, rights and privileges.

**PHI 180 Medical Ethics (3-0) 3 hrs.**

Designed to consider ethical issues related to the health science professions such as professional ethics, science and the person, euthanasia, abortion, human experimentation, the criteria for death, and the rights of patients.

**PHI 205 Religions of the World (3-0) 3 hrs.**

Introduces one or more Eastern religions (Hinduism, Buddhism, Shinto, Taoism, Confucianism) and one or more Western religions (Old Testament, Judaism, Christianity, Islam); their sacred writings, theologies, institutions, and histories.

- PHI 210 Death and Dying (3-0) 3 hrs.**  
Presents an interdisciplinary approach to the meaning of death. Focuses on biological, psychological, legal, philosophical and religious aspects of the phenomena of death and dying.
- PHI 220 Philosophy of Religion (3-0) 3 hrs.**  
Examines the nature and presuppositions of Western religions, especially the reasons which can be given for and against the existence of God. Selected further topics: the problem of evil, life after death, the nature of religious experience, language, knowledge, and authority, religion and science, major philosophical theories on the nature of religion.
- PHI 231 History of Philosophy — Ancient and Medieval (3-0) 3 hrs.**  
Surveys the major figures and schools in Western philosophical tradition from the pre-Socratic Greeks through the 14th century. Emphasis on interpreting philosophical reflection in light of the social, political, religious, and cultural context from which it arises.  
Prerequisite: A course in Philosophy or consent of instructor.
- PHI 232 History of Philosophy — Modern (3-0) 3 hrs.**  
Surveys the major figures and schools in Western philosophical tradition from the 15th to the 20th century. Emphasizes interpreting philosophical reflection in light of the social, political, religious and cultural context from which it arises.  
Prerequisite: A course in Philosophy or consent of instructor.
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## PHYSICAL EDUCATION

- PED 100 Diet and Exercise for the Adult (0-2) 1 hr.**  
Increases self-awareness about diet and exercise through the application of the various self-concepts such as physical fitness, skill learning, weight control, body mechanics and physiology of exercise. May be repeated up to a maximum of 2 credit hours.
- PED 104 Weight Training–Weight Lifting (0-2) 1 hr.**  
Weight Training–program of activities for the overweight or underweight leading to the development of strength and maintenance of physical fitness.  
Weight Lifting–skills, knowledge, and safety standards are taught in accordance with A.A.U. weight lifting rules. May be repeated up to a maximum of 2 credit hours.
- PED 120 Team Sports (0-2) 1 hr.**  
Experience in team sports, fundamental skills, offensive tactics of play, strategy, rules, terms, and practice in class competition in two of the following sports: touch football, soccer, softball, volleyball, and basketball. May be repeated up to a maximum of 2 credit hours.

- PED 130 Individual Sports (0-2)** **1 hr.**  
 Experience in individual sports, fundamental skills, offensive and defensive tactics of play, strategy, rules, terms, and practice in one or two of the following activities: tumbling and apparatus, track and field, handball, fencing, paddleball, horseback riding, ice skating and snow skiing. May be repeated up to a maximum of 2 credit hours.
- PED 136 Wrestling–Personal Defense (0-2)** **1 hr.**  
 Development of basic skills, knowledge, attitudes, and conditions of wrestling; offensive and defensive maneuvers, pinning combinations, and rules. May be repeated up to a maximum of 2 credit hours.
- PED 149 Restricted Activities (0-2)** **1 hr.**  
 For students restricted by health limitations. Individual programs adapted to meet specific requirements. Available to students with medical problems. May be repeated up to a maximum of 2 credit hours.
- PED 150 Bowling (0-2)** **1 hr.**  
 All-levels class with beginners grouped separately for special attention. Etiquette, scoring, and techniques according to present ability. Intramural competition afforded. May be repeated up to a maximum of 2 credit hours.
- PED 152 Golf–Archery (0-2)** **1 hr.**  
 Golf–fundamentals of grip, stance, and swing using irons and woods; terminology, etiquette, scoring, and safety standards.  
 Archery–maintenance of archery tackle; establishing and adjusting point of aim; shooting at 50, 40, and 20 yards; instinctive shooting; and field archery fundamentals. Intramural competition afforded. May be repeated up to a maximum of 2 credit hours.
- PED 154 Swimming (0-2)** **1 hr.**  
 All-levels class with beginners grouped separately for special attention. Red Cross standards of achievement are followed. May be repeated up to a maximum of 2 credit hours.
- PED 156 Badminton (0-2)** **1 hr.**  
 Recreational and conditioning activity. Singles and doubles play, strategy, serving, rules, and interclass competition. May be repeated up to a maximum of 2 credit hours.
- PED 158 Tennis (0-2)** **1 hr.**  
 Theory and practice, rules and scoring, development of serve, forehand drive, backhand drive, lob, volley, and footwork. Singles and doubles play and interclass competition. May be repeated up to a maximum of 2 credit hours.
- PED 160 Modern Dance I (0-2)** **1 hr.**  
 Opportunity to explore movement potential, increase technical proficiency, broaden rhythm background; skills in technique and composition stressed. May be repeated up to a maximum of 2 credit hours.

**PED 168 Racquetball (0-2)** **1 hr.**  
Offers a recreational and conditioning activity; singles and doubles play, strategy, serving and interclass competition. May be repeated up to a maximum of 2 credit hours.

### **Physical Education Courses–Theory–for Major and Minor Students**

**PED 200 Introduction to Physical Education (2-0)** **2 hrs.**  
Orientation and history of physical education from ancient times to present day. Objectives and aims of physical education and their applications.

**PED 201 First Aid (2-0)** **2 hrs.**  
Regulation American Red Cross instruction in first aid; immediate care given to a person who has been injured or has been suddenly taken ill. Includes self-help and home care if medical assistance is not available or is delayed. The Standard Red Cross Card is issued to those students who qualify.

**PED 203 Health (2-0)** **2 hrs.**  
An in-depth look at the physical, mental, and social dimensions as they relate to the following topics: mental health, stimulants and depressants, family living, diseases, and environmental health.

**PED 204 Methods of Teaching Physical Education Activities (0-4)** **2 hrs.**  
Methods used in teaching individual and team sports, with opportunity for practical application. Analysis of technique, planning of drills, and planning units for tennis, softball, swimming, weight training, and volleyball, with emphasis on teaching methods for elementary and secondary schools.

**PED 205 Drugs in Our Culture (2-0)** **2 hrs.**  
A course that will deal with material about which many individuals have strong and sometimes unfounded beliefs. The intent of this course is to provide a potpourri of the facts, attitudes, and opinions necessary to understand what psychoactive drugs do, how they do it, who uses them, and why.

**PED 207 Human Sexuality (2-0)** **2 hrs.**  
A course designed to acquaint students with the familial, sociological, biological, and emotional implications of human sexuality. Attention is also given to such pathological conditions as venereal diseases.

**PED 210 Sports Officiating (2-0)** **2 hrs.**  
Comprehensive instruction on rules and officiating techniques in interscholastic sports; practical experience required in the college intramural program.

**PED 220 Track and Field Techniques (2-0)** **2 hrs.**  
Development and understanding of strategy and rules of track and field. Basic skills of running, jumping, and throwing as performed in track and field; emphasis on knowledge and techniques essential to teaching track and field.

- PED 222 Football Techniques (2-0)** **2 hrs.**  
Fundamental and organizational techniques of game skills, strategy, practice drills, conditioning, safety standards, and officiating techniques.
- PED 224 Basketball Techniques (2-0)** **2 hrs.**  
Knowledge and skill in fundamentals and in techniques of team organization; skills of each position, offensive and defensive skills and team play, strategy, and officiating.
- PED 226 Baseball Techniques (2-0)** **2 hrs.**  
Analysis, instruction, and demonstration of fundamental skills, strategy, practice drills, conditioning, safety standards, and officiating techniques in teaching and coaching baseball.
- PED 228 Aquatics (2-0)** **2 hrs.**  
Introduction to skills and safety standards involved in swimming, lifesaving, and survival in water; study of the recreational value of water sports. Certification in Red Cross Lifesaving programs may be attained.  
Prerequisite: Ability to swim 100 yards.
- PED 230 Water Safety Instructor (0-2)** **1 hr.**  
Follows the standards established by the American Red Cross for teaching authorized swimming courses.  
Prerequisite: Senior lifesaving certificate.
- PED 270 Community Health (2-0)** **2 hrs.**  
Presents basic principles of community living and examines scientific methods applied to environmental health in urban and rural communities. Focuses on the functions of community health organizations and the way they relate to individual health needs.
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## PHYSICAL SCIENCE

- PHS 101 Physical Science Survey (3-0)** **3 hrs.**  
A course designed to give the non-science major an understanding and appreciation of the universe, earth, energy, and matter.
- PHS 111 Physical Science I (3-2)** **4 hrs.**  
Motion, structure of matter, electricity and magnetism, waves and particles, and the atom. Course for non-science majors fulfilling laboratory science requirements.
- PHS 112 Physical Science II (3-2)** **4 hrs.**  
Examines topics from basic chemistry, materials of the earth, earth forms and history, weather, the sun, stars, and the universe.

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**PHYSICS**

**PHY 101 Technical Physics I—Mechanics, Heat, and Sound (3-2)** 4 hrs.  
Statics, dynamics, energy, calorimetry, gas laws, waves and sound. Primarily for students in career programs. Other students see PHY 121 or PHY 201.  
Prerequisite: MTH 106 or concurrent enrollment.

**PHY 102 Technical Physics II—Electricity and Magnetism, Light (3-2)** 4 hrs.  
Electricity and magnetism: fields, induction, capacitance, direct and alternating current theory, circuits, and elements of electronics. Light: reflection, interference, resonance, lenses, diffraction, polarization, and Doppler effect. Primarily for students in career programs.

**PHY 121 Introductory Physics I (4-3)** 5 hrs.  
Mechanics, heat, and sound. Lectures, demonstrations, and laboratory. For students in arts, sciences, and architecture. Other students see PHY 201.  
Prerequisite: MTH 104.

**PHY 122 Introductory Physics II (4-3)** 5 hrs.  
Continues PHY 121. Electricity, magnetism, and light.  
Prerequisite: PHY 121.

**PHY 201 General Physics I—Mechanics (3-2)** 4 hrs.  
Foundations of kinematics, statics, dynamics, and hydraulics. For students in engineering, mathematics, physics, and chemistry.  
Prerequisite: MTH 201 or concurrent enrollment.

**PHY 202 General Physics II—Heat, Electricity, and Magnetism (3-2)** 4 hrs.  
Foundations of heat, thermodynamics, electricity, and magnetism.  
Prerequisite: PHY 201, MTH 202, or concurrent enrollment.

**PHY 203 General Physics III—Wave Motion, Sound, Light and  
Modern Physics (3-2)** 4 hrs.  
Foundations of wave, motion, sound, geometrical and physical optics, and modern physics.  
Prerequisite: PHY 202.

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**POLITICAL SCIENCE**

**PSC 201 Contemporary American Politics (3-0)** 3 hrs.  
Emphasis on critical problems and various proposed reforms relating to elections, campaigns, political parties, courts, congress, and the presidency. Utilizes political figures as guest speakers and offers opportunities for personal political involvement, especially in election years.



**PSC 202 Suburban, Urban, and State Politics (3-0)** **3 hrs.**  
 Critical evaluation of the relationships between political structures and citizen demands and needs. Emphasis on Illinois and the Chicago metropolitan area. Delves into machine politics, busing, housing problems, taxes, and regional planning. Prominent political figures as guest speakers and opportunities for involvement in community politics provide practical political knowledge and experience.

**PSC 205 Comparative Government: Developed and Developing Nations (3-0)** **3 hrs.**  
 Comparative analysis of modern political systems and problems in selected countries of Europe, Asia, Latin America, Africa and the Middle East. Touches on political instability and revolution in emerging nations as well as alternative patterns of democracy and communism.

**PSC 206 Global Politics (3-0)** **3 hrs.**  
 Surveys human problems of global dimensions—population, food, environment, war. Evaluates existing organizations, and transnational institutions. Utilizing simulations, it examines decision-making in the international arena and instruments of foreign policy including diplomacy, propaganda, and guerrilla warfare.

## PSYCHOLOGY

**PSY 099 College Survival Skills (3-0)** **3 hrs.**  
 Presents those skill areas necessary at the college level. Application and in-depth practice of note taking, test taking and textbook skills provided for each student's classes. Presentation through seminars and individual program contracts based on student needs.

**PSY 101 Introduction to Psychology (3-0)** **3 hrs.**  
 Human behavior with reference to perception, learning, individual differences, intelligence, and personality. Developmental method stressed rather than experimental. Reference made to daily life and everyday problems.

**PSY 110 Human Potential Seminar (1-0)** **1 hr.**  
 Designed to facilitate the development of individual human potential through a variety of small-group experiences. Individual sections may focus on, but are not limited to values, attitudes, life style planning, interpersonal skills, leadership, assertive behavior and decision-making. This course is not repeatable for credit.

**PSY 111 Career Planning and Development (0-2)** **1 hr.**  
 This course is one of varied activities from taking tests and interviewing professionals to examining one's strengths, weaknesses, likes and dislikes as they relate to the world of work. There are discussions on career development and planning intensive searches of two career paths.

**PSY 145 Psychology in Business and Industry (3-0) 3 hrs.**

Human behavior and its practical applications in business. Psychological applications in personnel and marketing problems, employee selection, morale, and supervisory practices.

Prerequisite: PSY 101 or consent of instructor.

**PSY 210 Introduction to Research in Psychology (3-0) 3 hrs.**

An introduction to the logic and theory of the scientific method. Emphasis on the basic statistical procedures and principles of experimental design. The purpose is to promote critical interpretations of behavioral data through an understanding of methods used in psychology.

Prerequisite: PSY 101.

**PSY 216 Child Psychology I (3-0) 3 hrs.**

Individual child from conception to fetal development, infancy, and latency. Emphasis placed on child rearing practices and techniques that appear beneficial in creation of independent and well-adjusted personality. Child's interaction with parents, siblings, peers, and greater community considered in the formation of the integrated self.

Prerequisite: PSY 101.

**PSY 217 Adolescent Psychology (3-0) 3 hrs.**

The psychological study of the human organism from pubescence through adolescence and the beginnings of adulthood. Adolescence is studied as a time of rapid change resulting from increased drive state, physical maturity, and changed social expectation. Emphasis is on how these changes are influenced by social institutions such as the family, the schools, and the world of work, as well as by the divisions and conflicts taking place in society generally.

Prerequisite: PSY 101.

**PSY 218 Psychology of Adulthood and Aging (3-0) 3 hrs.**

Focuses on human psychological development from young adulthood to old age and adult physiological processes of personality. Emphasizes identity and intimacy of young adults and changing male and female roles with maturity; the family, work; personality and psychopathology; aging and death.

Prerequisite: PSY 101 or consent of instructor.

**PSY 220 Biological Basis of Behavior (3-0) 3 hrs.**

Studies the physiological aspects of behavior. Emphasizes the physiological foundations of motivation, consciousness, learning, emotion, aggression and stress. Clarifies the interaction between physiology, behavior, and environment.

Prerequisite: PSY 101.

**PSY 225 Psychology of Personality (3-0)** **3 hrs.**  
 Investigates the determining factors and dynamics of human personality. Studies major contemporary approaches such as psychoanalytic, humanistic, learning as well as trait and factor theories. Also considers methods of personality assessment.  
 Prerequisite: PSY 101.

**PSY 230 Psychology of Adjustment (3-0)** **3 hrs.**  
 Scientifically studies the research and theories of psychology relevant to the dynamics of human adjustment. Emphasizes the meaning and concept of adjustment applied to motivation, frustration, conflict, stress, anxiety, learning, personality, psychological diagnosis, and psychotherapy.  
 Prerequisite: PSY 101.

## **PUBLIC ADMINISTRATION**

**PAD 101 Introduction to Municipal and Governmental Management (3-0)** **3 hrs.**  
 Reviews the history and present character of public management. Identifies the role of government and its relationship to the people. Defines the authority, responsibility and scope of government organization and processes by which these ends are achieved.

**PAD 201 Governmental Management (3-0)** **3 hrs.**  
 Studies the application of management principles in the execution of public policy with emphasis on state and local government. Views both the role and value systems of the public manager in setting objectives and utilizing resources. Emphasizes contemporary and emergent forms of organization, process and language.  
 Prerequisite: PAD 101 or consent of coordinator.

**PAD 202 Organization Behavior (3-0)** **3 hrs.**  
 Analysis and interpretation of human behavior in organizational settings and how the dynamics influence decisions, goal setting, motivation, leadership, communication and conflict resolution. Emphasizes individual, small groups and informal organization within government settings.  
 Prerequisite: Consent of coordinator.

**PAD 203 Management Process (3-0)** **3 hrs.**  
 Studies decision-making and problem-solving in governmental settings. Uses case study approach to integrate formal and experiential learning. Creates a problem-solving environment for the assimilation of knowledge from organization theory and behavior. Emphasizes leadership style, decision and change theory, centralization vs. decentralization.  
 Prerequisite: PAD 202.

**PAD 210 Public Finance and Budget Process (3-0)** 3 hrs.  
Reviews sources of public revenue, including income, sales, and property taxes. Closely examines the budget process, procedures and contemporary methods. Emphasizes state and local budget cycles and processes. Encourages students to make detailed examination of budget process most appropriate to their anticipated needs.

**PAD 212 Public Personnel Management (3-0)** 3 hrs.  
Examines traditional personnel processes as applied to government. Emphasizes contemporary problems in equal employment opportunity, public employee relations, employee productivity, and evaluation and career development programs.

**PAD 214 Planning in the Public Agency (3-0)** 3 hrs.  
Examines planning decision theory and application of planning concepts as applied to local program development, resource acquisition and evaluation. Emphasizes methods and techniques of problem identification, program development, resource acquisition and evaluation tools.  
Prerequisite: PAD 201 or consent of coordinator.

**PAD 215 Government Bureaucracies (3-0)** 3 hrs.  
Studies the elements of bureaucracy found in the management of public affairs. Examines the purposes served by bureaucratic processes and principles along with resulting problems. Amplifies sources of conflict occurring both within and outside bureaucracies.

**PAD 220 Governmental Management Problems (3-0)** 3 hrs.  
A practicum to examine and analyze selected local problems. Seminar approach is used for students and faculty to study problems in local government and to enumerate possible alternatives. May be repeated for a maximum of 6 hours credit.  
Prerequisite: Consent of instructor.

**PAD 222 Research Methods in Government (3-0)** 3 hrs.  
Examines methods and styles of research applicable to government operations and the fundamentals of analyses. Project required.

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## READING

**RDG 099 Developmental Reading (2-0)** 2 hrs.  
Individualized work toward improvement of comprehension and rate in reading through practice materials, timed essays, films, and mechanical aids.

**RDG 104 Reading Acceleration (2-0)** **2 hrs.**  
 Survey of basic reading techniques designed to accelerate reading rates. Emphasis placed on comprehension drills, skimming, and critical reading. Mechanical aids used to eliminate fixations, remove vocalizing habits, and accelerate present reading rates through perceptual training.

## REAL ESTATE

**RES 108 Brokers Licensure Preparation I (2-0)** **2 hrs.**  
 This course is designed to meet the State of Illinois requirements toward obtaining a real estate brokers license and contains lecture and discussion of skills and competence needed in the operation of a real estate brokerage business. The advanced principles of real estate, as well as the sales and brokerage aspects of this career are the main topics, as are legal and ethical obligations.  
 Prerequisite: RES 120.

**RES 109 Brokers Licensure Preparation II (2-0)** **2 hrs.**  
 Real estate conveyancing and finance are discussed in order to give a clear understanding of the movement of real property from owner to owner and the sources, types, and effects of borrowed money. Also covered are the legal forms of contracts, etc., now used in the many types of ownership of real estate.  
 Prerequisite: RES 120.

**RES 120 Principles of Real Estate (2-0)** **2 hrs.**  
 Fundamental principles of real estate for the real estate practitioner, those seeking to qualify for the real estate market (the buyer, seller, or owner of real estate), and the person who has contact with the business in work with financial institutions. Subject matter includes the nature and economic characteristics of real estate and its ownership, titles, contracts, market values, brokerage, selling, development, taxation, appraisal, financing, and licensing laws.

**RES 121 Advanced Principles, Marketing and Brokerage (3-0)** **3 hrs.**  
 Marketing applied to the real estate business. Sales planning, obtaining the qualifying prospects, securing listings, showing properties, and motivation are considered. Procedural matters pertaining to the business such as office location, staffing, and office systems are discussed, as well as the laws, regulations and ethics of the business. Samples of currently used forms are integrated into the course.  
 Prerequisite: RES 120 or consent of coordinator.

**RES 122 Real Estate Appraisal I (3-0)** **3 hrs.**  
 A course covering the functions and purposes of appraisal which has been designed to examine the nature of real property value and the various functions and methods of estimating values, with emphasis on the residential market.  
 Prerequisite: RES 120 or consent of coordinator.

- RES 123 Real Estate Law (3-0)** **3 hrs.**  
Examination of legal aspects of the real estate business, including contracts, interests in land, transactions, brokerage, leasing, closings, zoning, taxation, and the legal forms and remedies relative thereto.  
Prerequisite: RES 120 or consent of coordinator.
- RES 124 Real Estate Finance (3-0)** **3 hrs.**  
Analysis of the various financial aspects of owning, buying, and marketing all types of real estate, including mortgages, construction loans, leasing, sale and leaseback, foreclosure, trading, governmental programs and contracts, and taxation.  
Prerequisite: RES 120 or consent of coordinator.
- RES 230 Property Management Methods (3-0)** **3 hrs.**  
A course covering property analysis, rental scheduling, collection, and budgeting; maintenance and repair; insurance; advertising; techniques of handling tenants; executive and management control techniques. Course emphasizes procedures and methodology.  
Prerequisite: RES 123 or consent of coordinator.
- RES 231 Income Properties (3-0)** **3 hrs.**  
Basic concern of the course lies in the concept of real estate as an investment. Investment aspects of property management including vacant properties are considered. Other topics include: ground leases, sale and lease-back arrangements, highest and best use of property, distressed properties, characteristics of urban structure and growth, commercial and industrial properties as investments, and the role of syndicates, developers, builders, and financial institutions in promoting and managing income properties.  
Prerequisite: 9 credit hours of real estate or consent of coordinator.
- RES 232 Real Estate Appraisal II (3-0)** **3 hrs.**  
Depreciation factors, interest rates, capitalization rates and techniques, leasehold interest values; use and application of compound interest tables in the appraisal process; operating statements in the appraisal of income property, net income estimates, and correlation of final value estimates pertaining to income producing properties such as apartment, commercial and industrial development; professional appraisal standards.  
Prerequisite: RES 122.
- RES 233 Real Estate Problems Seminar (3-0)** **3 hrs.**  
Contemporary issues in the real estate industry possibly including tax foreclosures, tax deeds, tax titles, special assessments, assessing methods and practices, legislative and judicial influences upon the industry, and effects of the current economic situation upon the real estate industry. Directed readings and analysis of case studies will be used extensively.  
Prerequisite: Previously completed 9 credit hours of real estate course work.

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**REFRIGERATION AND AIR CONDITIONING****RAC 101 Refrigeration Fundamentals (2-3) 4 hrs.**

Basic terms used in the refrigeration trades, fundamental laws of energy conversions and gas behavior and their applications, description of various systems, pipe fitting techniques, trouble-diagnosing procedures, and charging of refrigeration systems.

**RAC 102 Refrigeration Systems (3-3) 4 hrs.**

Continues RAC 101. Attention given to assembling and constructing refrigeration systems to achieve desired results, trouble-diagnosing procedures for domestic and commercial equipment, and proper part replacement procedures.

Prerequisite: RAC 101.

**RAC 103 Heating Principles (2-3) 3 hrs.**

Description of heating equipment used in residential and light industrial systems, trouble diagnosing for common heating systems, proper repair procedures, and adjustment of controls for optimum performance of systems.

**RAC 104 Residential Comfort Systems (3-3) 4 hrs.**

Continues RAC 103. Integration of cooling equipment, installation of add-on cooling systems to present heating systems, and trouble diagnosing of combination systems.

Prerequisite: RAC 101 and RAC 103.

**RAC 105 Heating and Cooling Controls (3-3) 4 hrs.**

Description of operation and function of electric equipment, control of equipment, adjusting and testing the equipment and controls, and proper replacement of defective components.

**RAC 201 Refrigeration System Design I (3-3) 4 hrs.**

Factors considered in selection of refrigeration compressors, evaporators, and condensers. Factors that affect refrigeration effect. Characteristics of common refrigerants.

Prerequisite: RAC 102 or consent of instructor.

**RAC 202 Refrigeration System Design II (3-3) 4 hrs.**

Continues RAC 201. Factors considered in selection of metering devices, pipe sizing, piping design, oil migration, and system accessories.

Prerequisite: RAC 201 or consent of instructor.

**RAC 203 Air Conditioning Principles (3-3) 4 hrs.**

Properties of air and psychrometrics. Computing heat gains and heat losses. Selection of equipment for residential and light commercial systems.

- RAC 204 Air Distribution (2-3)** **3 hrs.**  
 Study of fans and fan performance. Factors considered in selection of fans. Duct systems, design fundamentals, sizing and location of registers.
- RAC 208 Pneumatic Controls (2-3)** **3 hrs.**  
 Description of construction and function of controls, diagnosis of malfunctions, and correction of defects.
- RAC 290 Independent Study (3-0)** **3 hrs.**  
 Course for students with some experience who do not wish to duplicate their present knowledge, or who cannot attend classes regularly. Study plan to be worked out by instructor and student.

## SECRETARIAL SCIENCE

- SEC 098 Review Shorthand (0-4)** **2 hrs.**  
 Designed for students with some knowledge of Gregg shorthand. Provides a complete review of theory and additional dictation practice to enable the student to reach the 60 wpm rate required for entry into SEC 126.  
 Prerequisite: Consent of instructor or coordinator.
- SEC 099 Typewriting Review (0-2)** **1 hr.**  
 Designed for those with limited skill at the keyboard. Work will help correct deficiencies in speed, accuracy, or manipulative skills on the electric typewriter.  
 Prerequisite: Limited knowledge of typewriting.
- SEC 101 Medical Office Assistant/Medical Transcriptionist  
 Orientation Seminar (1-0)** **1 hr.**  
 Introduces careers in medical office assisting and medical transcription. Emphasizes roles within the health care team, community responsibilities, health care trends and professionalism.
- SEC 121 Elementary Typing (1-3)** **2 hrs.**  
 Operation, use, and care of the typewriter. Typing by the touch system, emphasizing basic typing problems. Drills for speed and accuracy building will be used throughout the course.
- SEC 122 Intermediate Typing (1-3)** **2 hrs.**  
 Development of production work in typing manuscripts, business letters, forms, and tables.  
 Prerequisite: SEC 121 with grade of "C" or one year of high school typing.  
 Minimum speed of 50 gross words per minute.



**SEC 125 Elementary Shorthand (3-2) 4 hrs.**

Introduces theory leading to development of skill in reading and fluency in writing shorthand. This is the first of a sequence of shorthand courses.

Prerequisite: Prior or concurrent enrollment in SEC 121 or typing speed of 40 words per minute.

**SEC 126 Intermediate Shorthand (2-2) 3 hrs.**

Continues development of skill and speed dictation in shorthand with emphasis on vocabulary development, mechanics of English, and transcription techniques.

Prerequisite: SEC 125 or equivalent with grade of "C" and SEC 121 or equivalent. (Prior or concurrent enrollment in ENG 101 recommended.)

**SEC 130 Automatic Word Processing Equipment I (0-2) 1 hr.**

Introduces the features of the Mag Card I selectric typewriter, including machine operation in preparing business correspondence and reports and the revising, storing, retrieving, and merging of data. Students will complete assignments on an individualized basis in a laboratory situation.

Prerequisite: Typing speed of 40 words per minute.

**SEC 131 Business Machines (0-4) 2 hrs.**

Develops skills necessary to operate the ten-key adding machine, printing calculator, electronic display calculator, and the electronic printing/display calculator.

Prerequisite: Prior or concurrent enrollment in MGT 150 or consent of instructor.

**SEC 132 Executive Machine Transcription (0-4) 2 hrs.**

Provides knowledge of the basic skills needed in machine transcription, operating machine transcribers, and a proportional spacing typewriter.

Prerequisite: SEC 121 or equivalent.

**SEC 135 Automatic Word Processing Equipment II (0-2) 1 hr.**

Introduces the features of the Mag Card II selectric typewriter, including machine operation in preparing business correspondence and reports and the revising, storing, retrieving, and merging of data. Students will complete assignments on an individualized basis in a laboratory situation.

Prerequisite: Typing speed of 40 words per minute.

**SEC 140 Elementary Machine Shorthand (3-2) 4 hrs.**

Theory leading to the development of skill in reading and proficiency in the operation of a shorthand machine.

Prerequisite: Prior or concurrent enrollment in ENG 101 and typing.

- SEC 170 Introduction to Word Processing (2-0) 2 hrs.**  
Introduces fundamentals of word processing. Emphasizes office practices, changes in organizational structure, word processing work flow (origination, processing, reproducing, and distribution), equipment, role of management and secretary, and career opportunities.
- SEC 171 Word Processing Dictation and Transcription Techniques (2-0) 2 hrs.**  
Introduces and provides effective training in dictation and transcription techniques and procedures. Surveys dictation and transcription equipment currently on the market.
- SEC 221 Advanced Typing (1-3) 2 hrs.**  
Development of high speed and proficiency in typing from rough drafts, tabulations, and statistics.  
Prerequisite: SEC 122 with a grade of "C", or proficiency test with instructor.
- SEC 225 Dictation and Transcription (2-2) 3 hrs.**  
Strengthening of dictation speed and developing competence in transcribing mailable letters.  
Prerequisite: SEC 122 and SEC 126, or proficiency test with instructor, and ENG 101.
- SEC 234 Legal Office Procedures (3-0) 3 hrs.**  
Organization and operation of a law office, with emphasis on office management, records control, and procedures used in the preparation of legal documents.
- SEC 235 Legal Dictation and Transcription (2-2) 3 hrs.**  
Development of speed and facility in taking dictation and transcribing legal documents.  
Prerequisite: SEC 225 or equivalent with grade of "C" or higher. Shorthand speed of at least 100 wpm and typing speed of at least 60 wpm.
- SEC 236 Secretarial Procedures (3-0) 3 hrs.**  
Secretarial responsibilities in the office, exploring job opportunities, interviewing, grooming, human relations, telephone techniques, office organization, mail handling, travel arrangements, meetings and conferences, and knowledge of records management.
- SEC 237 Secretarial Seminar and Internship I (1-15) 3 hrs.**  
Preparation for and cooperative work experience in secretarial science. Part of the credit for this course will be given for participation in supervised cooperative work experience wherein an organized training plan will be followed in a college approved training station. One lecture hour per week for a seminar devoted to issues dealing with preparation for success in a secretarial career.  
Prerequisite: Consent of instructor and admission in either the Executive Secretarial or Legal Secretary programs.

**SEC 238 Secretarial Seminar and Internship II (1-15) 3 hrs.**

Continues SEC 237.

Prerequisite: Consent of instructor.

**SEC 239 Medical Office Assistant Seminar and Externship (1-15) 3 hrs.**

Provides supervised administrative and clinical experience in medical offices to enhance the student's technical skills.

Prerequisite: SEC 241, HSC 211, and consent of instructor.

**SEC 240 Medical Transcription and Typing I (2-2) 3 hrs.**

Develops speed and accuracy in transcribing medical reports using a transcription machine. Familiarizes student with typing various medical and insurance forms.

Prerequisite: Prior or concurrent enrollment in SEC 122, HSC 112, and BIO 135 or BIO 160.

**SEC 241 Medical Office Procedures (4-0) 4 hrs.**

Patient reception, appointment scheduling, proper telephone techniques, handling mail, medical records, written communications, billing, medical law, and insurance.

Prerequisite: Consent of instructor.

**SEC 242 Medical Transcription and Typing II (2-2) 3 hrs.**

Offers advanced specialized dictation to improve skills and confidence in transcribing medical reports using a transcription machine.

Prerequisite: SEC 240.

**SEC 260 Environmental Relationships in Business (1-0) 1 hr.**

Offers an understanding of human relations, group dynamics, and effective communications as they contribute to the success of the role and function of the secretary in dealing with people in the office environment. Emphasizes the relationship between the secretary or administrative assistant, the supervisor, and people the secretary comes in contact with in the business setting.

Prerequisite: One year of full-time secretarial experience or consent of instructor.

**SEC 261 Business Law and Public Policy (1-0) 1 hr.**

Emphasizes knowledge of business law as it applies in the secretary's work-a-day world and the implications of governmental controls as they impact upon business and office operations.

Prerequisite: One year of full-time secretarial experience or consent of instructor.

**SEC 262 Economics and Management (1-0) 1 hr.**

Furnishes an understanding of the basic concepts of economics and management underlying the United States business system as they relate to the secretary's role in business.

Prerequisite: One year of full-time secretarial experience or consent of instructor.

**SEC 263 Financial Analysis and the Mathematics of Business (1-0) 1 hr.**

Stresses fundamental accounting principles that a secretary must possess in order to assist the supervisor in the preparation, summarization, and interpretation of financial data. Emphasizes the secretary's application of basic math to business situations.

Prerequisite: One year of full-time secretarial experience or consent of instructor.

**SEC 264 Communications, Work Flow, and Decision Making (1-0) 1 hr.**

Gives an understanding of setting priorities in the office and the role of the secretary or administrative assistant in taking action on these priorities. Emphasizes correspondence styles and the production of this correspondence.

Prerequisite: One year of full-time secretarial experience or consent of instructor.

**SEC 265 Advanced Office Procedures (1-0) 1 hr.**

Emphasizes knowledge that a secretary must possess pertinent to business data processing, communications techniques, advances in office management, records management, and office systems, layout and design.

Prerequisite: One year of full-time secretarial experience or consent of instructor.

**SEC 272 Principles of Word Processing Management (3-0) 3 hrs.**

Techniques of management and supervision for word processing centers — organizing and operating the center; selecting, training, and motivating personnel; preparing procedure and policy manuals, work measurement tools, and work flow charts; evaluating and selecting word processing equipment and "software" support; and studying work environment requirements.

**SOCIOLOGY****SOC 101 Introduction to Sociology (3-0) 3 hrs.**

Introductory analysis and description of the structure and dynamics of human society. Application of scientific methods to the observation and analysis of social norms, groups, intergroup relations, social change, social stratification, and institutions.

**SOC 120 Social Patterns of Courtship and Marriage (3-0) 3 hrs.**

Courtship, marriage, rearing the family, and various factors contributing to changes in family organization or disorganization.

Prerequisite: SOC 101 or consent of instructor.

**SOC 205 Social Problems (3-0)****3 hrs.**

Analysis of contemporary social problems. Investigation of theories dealing with conformity and deviance, racial and minority group prejudice, crime and delinquency, personality problems, urbanization, and fundamental institutional problems due to social change.

Prerequisite: SOC 101.

**SOC 210 Social Institutions (3-0)****3 hrs.**

Primary social institutions, including family, religious, educational, economic, and political. Questions considered: who participates, what are the functions, what are the consequences, and an evaluation of the effects of the institution on the society.

Prerequisite: SOC 101 and sophomore standing.

**SOC 215 Introductory Social Psychology (3-0)****3 hrs.**

Introduces the methods used to understand, explain, and predict how the thoughts, feelings, and actions of individuals are influenced by the thoughts and actions of social groups. Investigates how attitudes, beliefs, and behaviors are influenced by others within society and how society is influenced by the individual.

Prerequisite: PSY 101 or SOC 101.

**SPANISH****SPA 101 Elementary Spanish I (4-0)****4 hrs.**

Beginning course in the language skills of listening, understanding, speaking, reading, and writing. This course is designed for students with no previous experience in Spanish.

**SPA 102 Elementary Spanish II (4-0)****4 hrs.**

Continues SPA 101. Situational conversations in Spanish; reading and writing stressed.

Prerequisite: SPA 101, two years of high school Spanish, or consent of instructor.

**SPA 201 Intermediate Spanish (4-0)****4 hrs.**

Conversation with emphasis on pronunciation, intonation, stress, and rhythm. Introduction to composition, reading of short stories, and grammar review.

Prerequisite: SPA 101, two years of high school Spanish, or consent of instructor.

**SPA 202 Intermediate Spanish (4-0)****4 hrs.**

Continues SPA 201. Plus accuracy and speed in reading, study of syntax, and extensive composition.

Prerequisite: SPA 201, three years of high school Spanish, or consent of instructor.

**SPA 205 Intensive Oral Practice (3-0) 3 hrs.**

Conversational practice to develop oral facility; especially designed exercises in pronunciation, stress, and rhythm. Individual readings of modern Spanish works discussed in class. Written and oral compositions based on readings. This course is designed to help students bridge the gap between the intermediate and advanced levels.

Prerequisite: SPA 202 or equivalent or consent of instructor.

**SPA 210 Introduction to Modern Spanish Literature (3-0) 3 hrs.**

Reading of selected 20th century masterpieces. Introduction to poetry. Oral readings stressing pronunciation and diction. Speaking based on discussions of works read. Writing based on readings and class discussions. This course is designed to help students bridge the gap between the intermediate and advanced levels.

Prerequisite: SPA 202 or equivalent or consent of instructor.

**SPEECH****SPE 101 Fundamentals of Speech Communication (3-0) 3 hrs.**

Theory and practice of oral communications. Development of poise, confidence, and skill in speech organization and delivery. Emphasis on frequent speaking, development of standards of criticism, and selection and organization of material.

**SPE 102 Public Speaking and Communication Theory (3-0) 3 hrs.**

Examination of communications principles underlying successful platform behavior. Development of proficiency in the logic of argument and skill of speaking. Consideration of forms of public address; analysis and delivery of one such form as a semester assignment.

Prerequisite: SPE 101 or consent of instructor.

**SPE 107 Oral Interpretation (3-0) 3 hrs.**

A performance course offering opportunities for selection, preparation, and presentation of various types of literature; development of facility in use of body and voice in oral reading.

Prerequisite: SPE 101 or consent of instructor.

**SPE 111 Introduction to the Theatre (3-0) 3 hrs.**

Introduction to theatrical and dramatic art. Emphasis on providing the student with the tools of analysis which give him insight into the total imaginative process that makes up the art of the theatre.

**SPE 115 Interviewing (1-0) 1 hr.**

A course focusing on the unique demand of dyadic communication. The student will examine interview types, participate in model interview situations, and complete a programmed course in cognitive listening skills.

**SPE 205 Discussion and Debate (3-0)** **3 hrs.**  
Principles, techniques, and types of discussion and debate; experience in various types of discussion and debate activities.  
Prerequisite: SPE 101.

**SPE 212 Acting (3-0)** **3 hrs.**  
Methods used in the art of acting; stress on practical acting situations.

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### **VENDING MACHINE REPAIR**

**ELT 121 Automatic Vending Machine Repair I (1-3)** **2 hrs.**  
Introduces skills and knowledge needed to service automatic vending equipment. Emphasizes attitudes for successful job entry and advancement in the industry.

**ELT 122 Automatic Vending Machine Repair II (1-3)** **2 hrs.**  
Continues ELT 121 with emphasis upon current vending equipment and components. Emphasizes theory, demonstrations, and "hands on" work on component parts.  
Prerequisite: ELT 121 or consent of instructor.

**ELT 123 Automatic Vending Machine Repair III (1-3)** **2 hrs.**  
Continues ELT 122 with trouble shooting of actual machines and real problems. Emphasizes rapid machine repair and timely service techniques. Covers late model machines and practice.  
Prerequisite: ELT 122 or consent of instructor.

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**HARPER COLLEGE OFF-CAMPUS COURSE LOCATIONS**

**Alexian Brothers Medical Center**  
800 West Biesterfield Road  
Elk Grove Village

**Hoffman Bowling Lanes**  
Higgins and Roselle Roads  
Hoffman Estates

**St. John's United Church of Christ**  
308 North Evergreen  
Arlington Heights

**Barrington High School**  
616 West Main Street  
Barrington

**Kirk Center**  
520 South Plum Grove Road  
Palatine

**St. Joseph's Home for the Elderly**  
80 West Northwest Highway  
Palatine

**Clearmont School**  
280 Clearmont Drive  
Elk Grove Village

**Lincoln Federal Savings and Loan**  
Higgins at Gannon Road  
Hoffman Estates

**St. Viator High School**  
1213 Oakton Street  
Arlington Heights

**Courthouse Sports Club**  
1450 Payne Road  
Schaumburg

**Northwest Community Hospital**  
800 West Central Road  
Arlington Heights

**Wheeling High School**  
900 South Elmhurst Road  
Wheeling

**Greve Jr. High School**  
777 Elk Grove Boulevard  
Elk Grove Village

**Northwest Opportunity Center**  
15 E. Palatine Road  
Arlington Heights

**Willow Park Center**  
Palatine Road and Milwaukee Avenue  
Wheeling

**Hersey High School**  
1900 East Thomas Avenue  
Arlington Heights

**Palatine Public Library**  
500 North Benton Street  
Palatine

**Woodfield Racquet Club**  
Golf Road  
Schaumburg

**Hilldale Golf Course**  
1655 Ardwick Drive  
Hoffman Estates

**Schaumburg Township Public Library**  
32 West Library Lane  
Schaumburg



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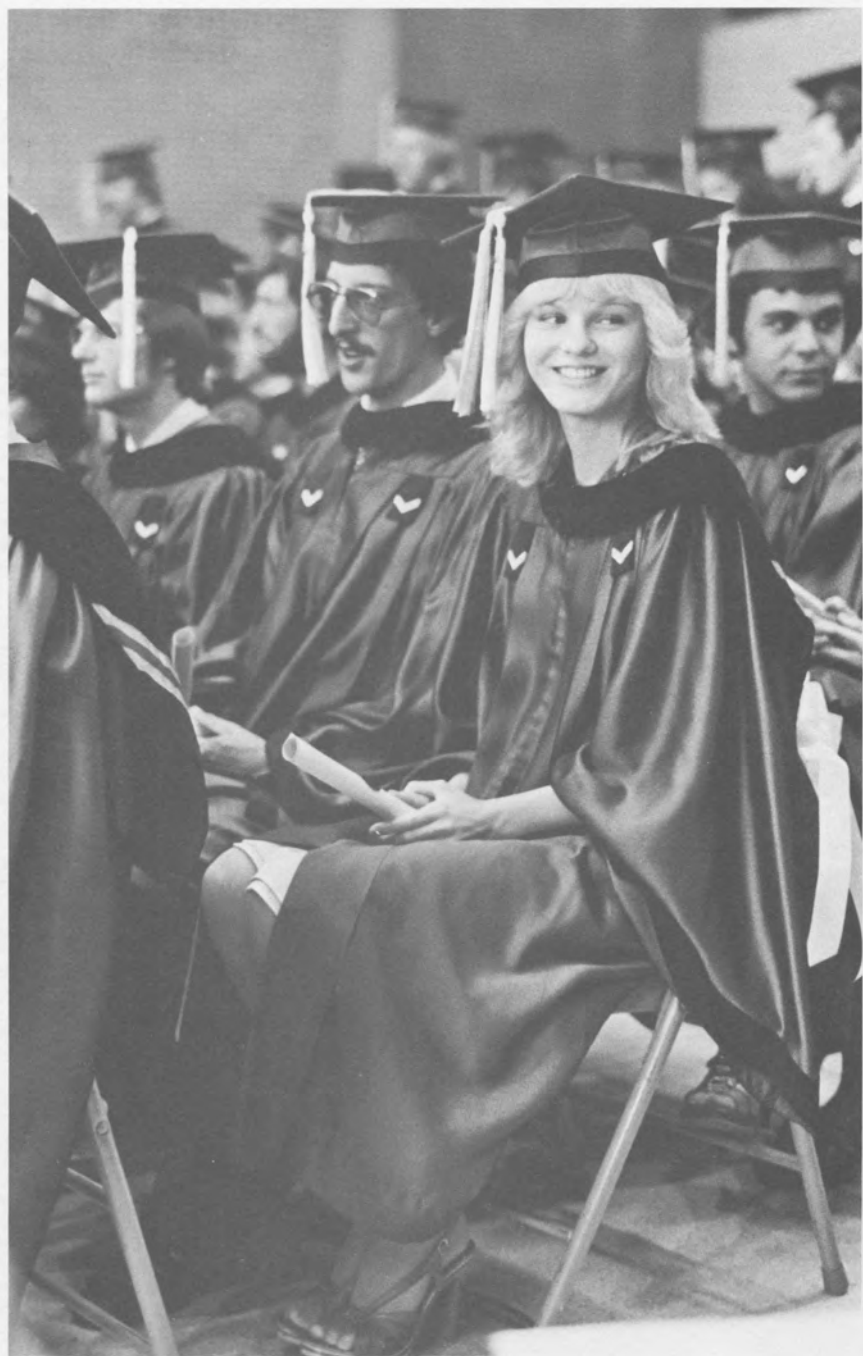
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