

WILLIAM RAINEY HARPER COLLEGE

1967

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William Rainey Harper College

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It is traditional for students to be excited and optimistic as they contemplate entering college. When William Rainey Harper College opens for classes this fall, it is reasonable to predict that the faculty will have its share of excitement and optimism, too. No wonder. It isn't everyday that a new college opens for business in a community.

What is the business of Harper? I welcome this opportunity to discuss a few of the aims of William Rainey Harper College as well as to invite all citizens to participate in the many activities of the institution.

We at Harper will be sensitive to the dignity and significance of each individual who may enter its doors. The education we offer will be designed to free the mind and to teach the students to think. In addition, our aims will be to encourage the individual to learn on his own initiative, to relate knowledge to his own needs, to develop strength of character, and to energize his imagination. We hope our instruction will not only show to the student how men in the past have made discoveries but will continue him on the road to making new discoveries himself.

The programs at Harper College will vary in achievement level, length, and content — a concept well engrained in the two year higher educational institution called a comprehensive community college.

As a community college, we hope that the courses of study, our programs of cultural activities and the whole personality of the campus will help enrich the lives of every resident of the district. Indeed, everyone can benefit — from the full time undergraduate to the businessman or housewife.

We invite the citizens of the college district to become active in our programs and to share our educational goals. Should you have suggestions for new programs or services which Harper College might offer, please discuss them with us. We will make every effort to respond to the needs of the community.

Given the next 100 years, there will probably be no more exciting time than right now. We hope you will join us in the beginning of this new institution.

ROBERT E. LAHTI, President

BOARD OF TRUSTEES

Just two years ago this May, the newly-elected Board of Trustees for Harper College convened for their first official meeting. The college had no name, no staff, no facilities. But it did have a Board consisting of seven individuals determined to establish a community college worthy of the area it serves.

How do seven people establish, staff and equip an operating college once the voters give them the go-ahead? Words such as "dedication," "hard work," and "civic pride" just don't tell the whole story. It is more of a "total involvement" in the project by each of the members.

Harper College has been fortunate to have Trustees possessing a unique capacity to work together in the planning of programs, the solving of problems and the establishing of educational goals which are unique in the history of the northwest suburban areas.

Five different areas in the District are represented on the Board, including Arlington Heights, Elk Grove Village, Hoffman Estates, Palatine, and Prospect Heights.

There has been a heartening interest and involvement by members of the community itself, too. Hundreds of interested people have worked countless hours in helping accomplish key phases of the college program.

As Harper College looks to the future, it seems appropriate here to look back briefly and reflect on the efforts of the Board and the community in making this new college a reality.

JOHN A. HAAS, President



JESSALYN M. NICKLAS, Secretary



PAUL O'DEA



ABRAHAM M. BERNSTEIN



JAMES J. HAMILL



MILTON C. HANSEN



RICHARD L. JOHNSON



THE FIRST THREE YEARS

The history of Harper College is not long. Late in 1964, a petition was circulated calling for a referendum to vote on the establishment of a community college. A few months later voters approved the referendum and the townships of Elk Grove, Palatine, Schaumburg and Wheeling joined together to form a community college district. Formation of the first Board of Trustees was swift. Voters returned to the polls only 34 days after approving the referendum to elect seven citizens — from among 48 candidates — as the first Board for the new college. Each of the four townships was — and still is — represented on the Board.

The idea of a community college in this area is not new. It had been mentioned as far back as 1950. But community ideas take time to grow and mature and it requires the vision and initiative of a number of people to bring important ideas to fruition.

Harper College has a history not quite three years old. Milestones in this brief history include:

November, 1964

Petition circulated calling for a referendum to vote on establishment of a community college.

March, 1965

Referendum is held and passes 3 to 2.

April, 1965

Forty-eight candidates for Board of Trustees file.

May, 1965

Election of seven-member Board of Trustees.

May, 1965

Board convenes for first meeting; uses board room of District #214.

September, 1965

Dr. Robert E. Lahti hired as president.

December, 1965

Architectural firms selected to design campus.

December, 1965

Arthur D. Little Company retained to make intensive demographic and economic study of district to aid in

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planning the curriculums and projecting the growth of the college.

March, 1966

200-acre site in Palatine selected for future campus.

April, 1966

College adopts name "William Rainey Harper".

June, 1966

\$7.375 million bond issue referendum passes 4 to 1.

September, 1966

\$3.375 million in revenue bonds sold.

December, 1966

Harper College master plan completed.

December, 1966

College receives first scholarship, a gift of the U.S. Gypsum Research employees.

January, 1967

Harper approved as Area Vocational School. State sets \$750,000 in trust for Harper's vocational program.

January, 1967

\$4 million in revenue bonds sold.

January, 1967

First faculty members hired.

January, 1967

First student accepted by College.

February, 1967

Architectural master plan approved.

March, 1967

State recommends Harper for \$2.6 million federal grant.

March, 1967

Village of Barrington joins Harper College district.

August, 1967

Orientation for students begins.

August 21, 1967

New faculty convenes.

September 8, 1967

Student registration.

September 13, 1967

Classes begin.



W. R. Harper, at right, with J. D. Rockefeller
observing University of Chicago's
Decennial Celebration, June 18, 1901.

WILLIAM RAINEY HARPER

Father of the Community College

William Rainey Harper was the father of the community college movement. As the first president of the University of Chicago, he accomplished so much that he is counted among the intellectual giants of his time.

William Rainey Harper was a prodigy. He was a freshman at Muskingum College at the age of 10, received a bachelor of arts degree at 14, a Ph.D. from Yale at 19 and was a full professor at Yale at the age of 29.

The 15-year period of his presidency saw: 1, The emergence of the University of Chicago as a leader in the movement to reform higher education; 2, the principle of academic freedom clearly defined; 3, the importance of both teaching and research established; 4, and the way set for the flowering of the modern American university.

William Rainey Harper is credited with having been the first to use the name "junior college" in referring to the first two years of the traditional four-year course. In 1896, the University of Chicago was divided into two major divisions—the Academic College and the University College.

The Academic College, where the student completed his freshman and sophomore years, was renamed the Junior College while the University College, for juniors and seniors, became the Senior College. This seems to firmly

establish Harper as the first to have used the term "junior college" in describing an institution from which the modern community college stems.

When Harper wrote to John D. Rockefeller in 1890 seeking support for the University he did not over-state his case when he said, "It seems a great pity to wait for growth when we might have been born full-fledged."

In light of Harper's specific contributions, it does indeed seem that the institution was born full-fledged. The university extension service was founded, the four-quarter system begun, the University Press introduced to higher education and the prestige of the teacher-scholar pushed to new heights.

Even as he reorganized the university and administered its many departments, he taught full time and served as chairman of his department. Few, if any, presidents had ever done so much before and probably none has since.

PHILOSOPHY

The general philosophy of Harper College is to provide an outstanding program of higher education for the community it serves. Created by a community responsive to the contemporary insistence on more education for more of its citizens, the college is determined to meet the full range of post high school educational needs of the community at large.

The importance is recognized of educating all students for a meaningful role in a free and fluid society. Basic to responsible participation in society is the student's realization of his potential by voting more intelligently, producing more efficiently through the acquisition of a salable skill, and adapting more readily to a complex society.

With a commitment to the dignity and significance of each student, the college will endeavor to bring the student to an understanding of what place he can make for himself in modern society and to provide the education necessary for him to realize his social and personal goals. The college must create an environment conducive to the development of sound standards of thinking and conduct and must provide those cultural experiences which open to the student the heritage of the educated man.



OBJECTIVES

Specific objectives of the college are:

A 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.

B To offer two year programs in technical-vocational training providing students with the knowledge and skills required in a specific field.

C 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.

D To offer opportunities for adults in the community to initiate or to continue a collegiate education.

E 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.

F To complement the educational programs with effective counseling services, including guidance and assistance to each individual student.

G To encourage the use of its facilities and services for educational and cultural purposes by all citizens of the community.

OUR NEW CAMPUS

Bricks and mortar will be playing an important part in developing Harper College into a distinguished comprehensive community college. The program of construction and development is being taken in a number of carefully planned steps over the next several years.

For more than a year, the architects have been at work developing a master plan for a campus projected to enroll 10,000 students by 1975. Sixteen buildings are included in the plan. Construction drawings are in process for the first seven. Enough state and/or federal funds are anticipated to permit immediate construction of at least five of these.

The first five structures on the Harper site will be a comprehensive library and learning resources center; a two-building science and technology laboratory and classroom complex; a college center, housing the data processing center, classrooms, counseling and student related activities, bookstore, lounge and dining facilities, and administration offices; and a center utility facility. Other buildings having high priority for construction in the near future include a lecture-demonstration center, a fine and applied arts wing, a vocational-technical center, a gymnasium, and a theatre.

Assuming financing and construction move along on schedule, the first campus buildings should be ready for students in the fall of 1969.

A LOOK AT THE UNIQUE VILLAGE STREET CONCEPT OF HARPER COLLEGE'S NEW CAMPUS

The new campus of Harper College is being designed to complement the student's social and intellectual experiences. The informal layout of the campus may be characterized as having a "Village Street" atmosphere. This architectural concept uses scale and placement of buildings, multi-level plazas, picturesque pedestrian streets, various building materials and subtle colors to produce a stimulating and pleasing environment for learning and working.

Buildings, while suggesting strength, will be designed on a human scale. Built into the natural contours of the site,



many buildings will have entrances on several levels and will contain a variety of interior spaces and exterior views. Variations of building materials as well as the staggered placement of architectural shapes will be other techniques utilized to produce a feeling of informality.

Vistas will be controlled through building arrangement, architecture and landscaping to achieve different esthetic experiences. A walk across the campus will provide varied "look-in look-out" experiences in passing from one intimate plaza to another. Especially dramatic will be several views through buildings or from within certain buildings to a scenic small lake bordering the campus. A footbridge will connect the peninsula at the edge of the campus to a parking area across the lake.

Heavy pedestrian traffic flow between buildings will be accommodated by broad plazas, surfaced in brick or textured concrete, interspersed with lawns and plantings. Numerous benches and tree-shaded outdoor seating areas are planned.

Coordinating the human scale with a careful combination of building materials and color patterns will generate within each building a pleasing "flow of space." Channels of student traffic will occasionally open into quiet bay areas where groups may pause to pursue anew ideas, issues, or problems raised in class but often unresolved. These conversation centers, plus classrooms, offices and other interior spaces are being designed to encourage intellectual interaction between and among students and faculty.

Harper's new campus will be laid out so that students have alternative pathways available when walking between buildings. Outdoor routes may be the most used when the weather is inviting. During inclement weather, the campus may be traversed almost entirely undercover.

At night, campus illumination will come from fixtures built into plaza walls. The perimeters of the campus bordering on parking areas will be landscaped heavily with trees and other plantings. Forming a natural screen, these plantings will help preserve the village atmosphere of the campus.

It is anticipated that Harper's campus will attract many visitors. Interior and exterior spaces have been carefully



planned to create an atmosphere of belonging and a pride of occupancy for students and faculty alike. In addition to becoming an important focal point for the communities it serves, the Harper campus should provide a pleasing learning environment which graduates will recall with a feeling of nostalgia and pride.

HARPER'S TEMPORARY CAMPUS

Until its own new campus is ready for use sometime in 1969, Harper College will be located in the five million dollar Elk Grove High School. The cooperation of the staff of High School District #214, the faculty and staff of Elk Grove High School and the entire Elk Grove community has been heartening and has helped solve many of the problems associated with operating a new college on a temporary campus.

Harper College will hold classes in Elk Grove High School from 4 to 10 p.m., Monday through Thursday. The high school is located in the 600 block south on Arlington Heights Road at the corner of Elk Grove Boulevard. More than 75 modern, well lighted classrooms have been made available to the college. In addition, approximately half of Elk Grove's library space has been allocated to the college and Harper will have its own books and librarian. So that activities of students and faculty will not be limited to the 4 to 10 p.m. schedule of classes, Harper College has purchased eight new portable buildings to accommodate a student lounge, bookstore, science laboratories, student counseling and faculty offices.

By housing these facilities in its own buildings, Harper students may come to the Elk Grove campus well ahead of 4 p.m. classes to meet with teachers, or with counselors, to study, to purchase books, and so on.

These modern, fireproof, air conditioned portable units will be located immediately adjacent to the high school building, convenient to classrooms and the library. Harper students will also have available the use of Elk Grove High School's excellent gymnasium and field house from 7 to 11 p.m. Monday through Thursday.

Most of the administrative offices of the college will remain headquartered at 34 West Palatine Road in Palatine.

ADMISSIONS

High School Graduates

All high school graduates are eligible for admission to the college. Non-graduates, 18 years of age or older, may be admitted if they demonstrate the capacity and maturity to benefit from programs and courses offered by the college. To be placed in some programs within the college, applicants may have to meet additional requirements.

Adult Students

All classes are open to adults who meet course prerequisites and wish to attend. In addition, the college will offer special courses designed to meet the needs of adults within the college community.

High School Students

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

International Students

International students will be admitted to Harper College. Information regarding their admission may be obtained from the admissions office.

TYPES OF ADMISSION

Regular Admission

Applicants may be admitted as regular students if they are high school graduates and meet the requirements, if any, for placement in the program of their choice. Applicants not meeting requirements will have an opportunity

to demonstrate capacity to do college-level work on an admission examination.

Provisional Admission

Applicants who have not met the requirements for placement into a specific program, or who fail to qualify for admission as regular students, may be admitted on a provisional basis to take the course work necessary to enter the program of their choice.

Applicants who have completed high school requirements by taking and satisfactorily completing the General Education Development (G.E.D.) examination may be admitted as regular or provisional students, depending upon their performance on the admission examination.

Transfer Admission

Individuals transferring in good standing from another college or university will be admitted as regular students. Students transferring with less than a C (2.0) average will be admitted on a probationary status if it is felt they are ready to pursue a college program. Students must provide the admissions office with official college transcripts covering all previous college work.

Special Admissions

Applicants desiring to enroll on a part time basis carrying less than 12 hrs. and not interested in earning credits applicable toward a degree may be admitted after completing the Special Admissions form. If at a later date the student wishes to enroll in a degree program, credits earned as a special student may be applicable.

Readmission

Any student who has previously attended Harper College and who is returning after an absence of one semester or more must complete an application for readmission and supply transcripts for all academic work taken since last attending Harper College. Any student dismissed for an academic or disciplinary reason must submit a petition for readmission to be reviewed by the admissions committee.

Application Procedures

Prospective students applying for admission to Harper College are required to:

- 1 Apply for admission using forms supplied by the college.
- 2 Submit complete transcripts of all high school work and any college credits earned.

- 3 Take the American College Test (ACT) and have the scores submitted to the college.
- 4 Complete and return the health form.
- 5 Pay a \$10.00 non-refundable application fee. This fee **will** be applied to the student's tuition upon completion of registration.

RESIDENCY

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

Resident

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

Non-resident

A student residing in Illinois, but outside Junior College District 512.

Out-of-State

A student whose residence is outside the State of Illinois.

ADVANCED PLACEMENT POLICY

Credit and advanced placement will be awarded to students with adequate CEEB. Advanced Placement Examination grades in areas comparable to the Harper curriculum. The granting of credit and/or advanced placement will be determined following an evaluation of the examination by the appropriate divisional chairman.

DEVELOPMENTAL PROGRAM

Harper College has established a program for students whose high school achievement and test scores are below the minimum for admission to other college curricula. This program is designed to give the student every opportunity to develop his abilities, to remove deficiencies, and to qualify for the college curriculum of his choice. The program is designed and supervised by the student's counselor within guidelines established by the college.



EXPENSES

Students should be prepared for the following expenditures:

Tuition

Tuition costs for resident students is \$8.00 per credit hour.

Activity Fee

The fee for full time students, (those carrying 12 hrs. or more) is \$10.00 per semester, for part time students (those carrying less than 12 hrs.) \$5.00 per semester.

Laboratory Fee

A \$5.00 fee is charged for each science course involving a laboratory session.

Textbooks

Students must furnish textbooks, laboratory manuals and miscellaneous supplies as required by their instructors. Costs are estimated to range from \$35.00 to \$50.00 per semester. (Students carrying an average load of fifteen semester hours should be prepared to pay approximately \$175.00 to \$200.00 per semester.)

WITHDRAWALS

When a student wishes to withdraw from a class after regular registration, he must withdraw officially by petition approved by his counselor. Petitions must be approved prior to the ninth week of a semester or the fifth week of a summer term.

Students not withdrawing officially through the counseling office are subject to an "F" grade.

Withdrawals from the college are handled in the same way as withdrawals from class. Students who withdraw from college without obtaining an approved formal leave of absence will receive an "F" grade in each course enrolled.

TUITION REFUND POLICY

Tuition refund requests should be made to the office of the registrar. Refunds will be made according to the following schedule:

	Percent of Refund
First week of classes*	80
Second week of classes	60
Third week of classes	40
Fourth week of classes	20
After fourth week	None

*Terminates with the Friday ending the first full week of classes in accordance with the college calendar.

CHARGE BACK

Resident students desiring an educational program not available at Harper College may apply for charge back tuition if they attend another public junior 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.

GRADING

At mid-term and 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.

Grade Point: Grade points are numerical values which indicate the scholarship level of letter grades. Grade points at Harper College 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
X	Incomplete	.0
W	Withdrawal	.0



INCOMPLETE

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. The unfinished work must be satisfactorily completed by the mid-term of the following semester or a grade of "F" will be assigned.

AUDITING A COURSE

A student desiring to audit a course without credit must receive approval from the registrar's office. Students will be required to pay full tuition and fees. An auditor cannot change his status to that of a credit student nor can credit for the audited course be established at a later date.

SELECTIVE RETENTION

Students who have accumulated seven hours of credit or more and who have failed to achieve satisfactory progress may be placed on probation or be disqualified. In the following table, satisfactory performance, probation and disqualification are defined in terms of grade point average.

Cumulative			
Hours	Disqualified	Probation	Satisfactory
7-18	.00- .99	1.00-1.49	1.50 or more
19-36	.00-1.29	1.30-1.74	1.75 or more
37 or more	.00-1.59	1.60-1.99	2.00 or more

Students may be disqualified without first being placed on probation if their grade point average is below the minimum level shown for probationary status. For example, if a student taking 12 credit hours during his first

semester earns only a .91 grade point average, he will not be able to enroll at Harper the following semester.

PROBATION

Probationary students must raise their cumulative grade point average to the minimum required for the succeeding semester in which they are enrolled or be disqualified. A probationary student may be required to carry a reduced number of units upon the recommendation of his counselor. Students not achieving a satisfactory grade point average after two semesters on probation will be disqualified from further attendance.

TRANSCRIPTS

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

TRANSFER OF CREDIT

Credits earned at Harper College may be transferred to other institutions of higher education. Students should select courses at Harper to fit the program they plan to follow at the four-year institution. These courses should be selected with the aid of one of the members of the college counseling staff. Harper College has received assurance from numerous colleges throughout the United States that qualified students will be able to transfer without difficulty.

FINANCIAL AID AND PLACEMENT

A comprehensive program of financial aids has been developed to help insure that no student will be denied an education for lack of funds. This program includes scholarships, grants-in-aid, loans, educational opportunity grants,

a college work-study program and employment opportunities. Further information is available from the director of placement and student aids at Harper College.

The college placement office aids students in finding part time work and summer work while at Harper and full time employment for graduates of the one or two year career programs. See the director of placement and student aids for employment assistance.

COUNSELING

Recognizing the importance of a comprehensive guidance and counseling program in a community college, Harper College is developing a strong student personnel department. It is staffed on a three hundred to one student to counselor ratio.

Counselors will help students become oriented to college, serve as their academic advisors and counsel with them on educational, vocational, or personal-social problems. The counselors are readily available to students in the counseling center, and students are urged to use their services.

Counseling is also available to part time students who may make appointments with counselors at the counseling center.

ORIENTATION

All students are invited to participate in the college orientation program held each year during the month of August. General information about the college will be presented and students will meet with their counselors for academic advisement. Details of the orientation program will be sent to all admitted students in July.

STUDENT GOVERNMENT

Students are encouraged to establish a strong student government to serve as the focal point for student involvement in the development of a spirited community college. The student government will be responsible for appointing

students to several faculty-student committees and for recommending policy dealing with many facets of college life. The college recognizes that students, as adults, have the right to participate in the development of policies which directly affect them and the college will look to the student government to play the leading role. The college expects that where this freedom is granted concomitant adult responsibility will be shown.

CONDUCT

College students are assumed to be adults and as such are expected to maintain contemporary community adult standards of dress, manners, and conduct. If the conduct of any student tends to subvert the academic process or reflect negatively on the college community, the college reserves the right to take appropriate disciplinary action. Serious offenses may result in suspension or dismissal.

STUDENT ACTIVITIES

The student government is expected to be instrumental in developing a strong program of student activities developed around the interests and needs of the student body. Students wishing to start clubs or organizations or to hold social activities are invited to apply to the student government for authorization. Student activity fees will be utilized to fund this program. The budget for the activity fund will be prepared initially by the student government and recommended to the administration for final adoption.

ATHLETICS

Harper College is in the process of becoming a member of the Northern Illinois Junior College Conference. Because it takes a full year to become a member and be scheduled into league play, no intercollegiate athletics will be played during the 1967-68 college year. It is anticipated that during the 1968-69 year Harper will field teams in at least three or four sports.



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 him with information in particular subject fields but contributes toward an enlightened and integrated view of life. General education serves to complement the specialized training designed to prepare him for an occupation, whether it be a trade skill, a technical proficiency, or a professional vocation.

Whether following a transfer or a terminal program the aim of general education offerings is to equip the student with important understandings and insights and with the power to communicate them. Thus his efforts to assume his role as a citizen and to earn a livelihood are set in a perspective of values 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.

DEGREES

Harper College offers three degrees: the Associate in Arts, the Associate in Science, and the Associate in Applied Science. 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 vocational programs.

In addition, the college will structure certificate programs designed to meet specific needs of the community. These programs will normally be one year in length and upon completion of the prescribed courses the student will receive a certificate of completion. See the list of curricula for current certificate programs.

GRADUATION REQUIREMENTS

1. A minimum of 60 semester hours of credit, at least 30 of which must be earned in attendance at Harper College.
2. A minimum grade point average of 2.0 for all work taken for the associate in arts and the associate in science degrees. A minimum grade point average of 2.0 for any applicable 60 semester hours of work for the associate in applied science degree.
3. Two hours of credit in physical education activity courses in addition to the 60 hours of credit above (1).
4. Satisfactory completion of political science 201 or a passing score on a college administered test on the constitutions of the United States and state of Illinois, the principles of American democratic government and the proper use and display of the American flag (sec. 27-4—school code).
5. A math standard score of 14 or higher on the A.C.T. test, a satisfactory score on a math achievement test administered by the college or the satisfactory completion of a math course at the college numbered 100 or above.
6. Requirement of 60 hours must be in courses numbered 100 or above for the degrees of associate in arts and associate in science.
7. Enrollment in Harper College during the semester in which graduation requirements are completed. Waiver of enrollment requirement by dean of instruction where exceptional circumstances warrant.
8. Fulfillment of the degree group requirements.

DEGREE GROUP REQUIREMENTS

	Associate in Arts	Associate in Science	Associate in Applied Science
I. COMMUNICATION SKILLS			
English 101, 102	6 hrs.	6 hrs.	6 hrs. ¹
II. SOCIAL SCIENCES	6 hrs.	6 hrs.	6 hrs.
anthropology, economics, geography, history, political science, psychology, sociology, or social science			
III. SCIENCE OR MATHEMATICS	8 hrs.	20 hrs.	8 hrs. ²
biology, chemistry, engineering, geology, mathematics, microbiology, physical science, physics, zoology			
IV. HUMANITIES	6 hrs.	6 hrs.	3 hrs.
art, fine arts, foreign language, humanities, literature, music, philosophy			
	26 hrs	38 hrs.	23 hrs.

¹ Business 130 or 230 or English 99 or 103 may be used in satisfying this requirement under certain conditions. See a counselor for details.

² Students majoring in an approved applied science degree program may count courses in their major toward fulfillment of this requirement.

CAREER PROGRAMS

Harper College is planning a number of degree programs in the vocational area. Programs planned for September 1967 are:

- Accounting
- Data Processing
- Electronics
- Marketing and Retailing
- Mechanical Design
- Nursing
- Secretarial Science
- Law Enforcement

The one certificate program being planned for the fall of 1967 is:

- Data Processing Clerical

Additional programs considered for a year or two hence are:

- Architectural Design
- Civil Engineering Tech.
- Dental Assisting
- Dental Hygiene
- Fashion Design
- Instrumentation
- Numerical Control

Programs must be approved by the State Board before implementation. For current information on these programs, please check with the director of admissions.

The programs offered for 1967-68 and the course requirements are as follows:



WELLNESS

ACCOUNTING

Accounting is a two-year 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 objective of the program is to prepare students for employment as junior accountants in business, industry, and government.

First Year

FIRST SEMESTER	SECOND SEMESTER
ENG 101 Composition 3	English elective 3
BUS 101 Accounting I 3	BUS 102 Accounting II 3
BUS 111 Bus. Org. & Mgt. 3	BUS 145 Marketing 3
D.P.R. 101 Intro to Data Proc. . . 3	Math. elective 3
Social Science elective 3	Social Science elective 3
Physical Ed. elective 1	Physical Ed. elective 1
<u>16</u>	<u>16</u>

Second Year

FIRST SEMESTER	SECOND SEMESTER
BUS 201 Inter. Acctg. I 3	BUS 202 Inter. Acctg. II 3
BUS 104 Payroll Acctg. 3	Accounting elective 3
BUS 218 Intro. to Finance. 3	Humanities elective 3
BUS 211 Business Law I 3	BUS 212 Business Law II 3
Elective 3	BUS 265 Personnel Mgt. 3
<u>15</u>	<u>15</u>

DATA PROCESSING CLERICAL PROGRAM

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

FIRST SEMESTER	SECOND SEMESTER
ENG 101 Composition* 3	SOC 101 Intro. to Soc. 3
BUS 101 Accounting I 3	DPR 104 K P & Ver. II 2
DPR 101 Intro. to DP 3	DPR 105 Bus. Mach. Oper. 2
DPR 103 K P & Ver. I 2	English elective 3
BUS 150 Bus. Math 3	Elective 3
Physical Ed. elective 1	Physical Ed. elective 1
<u>15</u>	<u>14</u>

PREREQUISITES: Typing speed of 40 WPM. Students not meeting this requirement must take Business 121 and/or Business 122.

*Students not qualifying on a placement test for College English may take English 99 or Reading 95.

DATA PROCESSING TECHNOLOGY

The Data Processing 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 will find employment as computer programmers, systems analysts, and computer and unit record equipment operators.

First Year

FIRST SEMESTER	SECOND SEMESTER
DPR 101 Intro. to DP 3	DPR 110 Computer Prog. I 5
DPR 102 Elect.-Mech. Mach. . . . 4	DPR 150 DP Math. I 3
ENG 101 Composition* 3	ENG 103 Report Writing 3
MTH 103 College Algebra* 3	BUS 101 Accounting I 3
SOC 101 Intro. to Soc. 3	BUS 111 Bus. Organ. & Mgt. . . . 3
Physical Ed. elective 1	<u>17</u>
<u>17</u>	

Second Year

FIRST SEMESTER	SECOND SEMESTER
DPR 201 Computer Prog. II 4	DPR 215 Ad. Prog. Lang. 5
DPR 202 Prog. Systems 3	DPR 204 Sys. Anal. & Des. II . . . 3
DPR 203 Sys. Anal. & Des. I 3	ECO 201 Prin. of Eco. I 3
DPR 250 DP Math. II 3	DPR 230 Field Pro./Case St. 3
BUS 102 Accounting II 3	BUS 203 Intro. Cost Acc. 3
Physical Ed. elective 1	<u>17</u>
<u>17</u>	

*Students not qualifying in placement tests for English 101 or College Algebra 103, will be required to take appropriate preparation work.

ELECTRONICS TECHNOLOGY

Electronics Technology is a two-year technical program leading to an associate in applied science degree. It is designed to train students for the field of electronics and associated industries. The curriculum offers courses in electronics, mathematics, physics, and general education.

Graduates will find employment in such positions as electronics technicians, electronics testers, electronics/electrical draftsmen, engineering technicians, customer engineers, research laboratory technicians, and technical writers.

First Year

FIRST SEMESTER		SECOND SEMESTER	
ENG 101 Composition	3	ENG 102 Composition	3
Social Science elective	3	Social Science elective	3
ELT 101 D.C. Electricity	4	ELT 102 A.C. Electricity	4
PHY 101 Tech. Physics I	4	PHY 102 Tech. Physics II	4
MTH 106 Tech. Math I	4	MTH 107 Tech. Math II	3
	<u>18</u>		<u>17</u>

Second Year

FIRST SEMESTER		SECOND SEMESTER	
ELT 103 Elec. Drafting	2	ELT 202 Elec. II	4
ELT 201 Elec. I	4	ELT 203 Physical Elec.	3
ELT 204 Elec. Instrument.	3	ELT 205 Elec. Computers	3
ELT 210 Fortran Program.	3	Humanities elective	3
MTH 206 Tech. Math III	3	MTH 207 Tech. Math. IV	3
Physical Ed. elective	1	Physical Ed. elective	1
	<u>16</u>		<u>17</u>

LAW ENFORCEMENT

Law Enforcement is a two year program leading to an associate in applied science degree. It is designed to prepare students for careers in police service at the local, state, and federal level. Provided in the curriculum, are options for the student who wishes to continue on to a baccalaureate degree at a four year college or university.

After completion of the two year program the student can choose a career as a municipal policeman, state policeman, or as a security officer. In addition, there are various technical opportunities at the state and federal level.

First Year

FIRST SEMESTER	SECOND SEMESTER
ENG 101 Composition 3	ENG 103 Report Writing 3
SOC 101 Intro. to Sociology .. 3	SOC 205 Social Problems 3
PSY 101 Intro. to Psychology .. 3	PSY 217 Development Psych. . . 3
LAE 101 Intro. to Law Enforcement 3	PSC 201 American Govt. — Organization and Powers . . . 3
LAE 102 Police Org. & Admin.. 3	LAE 110 Police Operations 3
PED Physical Education 1	PED Phys. Ed.: Defense Tactics . 2
<u>16</u>	<u>17</u>

Second Year

FIRST SEMESTER	SECOND SEMESTER
PSC 202 Amer. Govt.: Functions 3	LAE 202 Criminal Law II 3
SPE 201 Fundamentals of Speech 3	LAE 211 Criminal Investigation. 3
LAE 201 Criminal Law I 3	LAE 212 Traffic Administration. 3
LAE 210 Intro. to Criminology .. 3	LAE Elective ¹ 3
LAE Elective ¹ 3	LAE Elective ² 3
PED 216 Phys. Ed.: First Aid .. 2	PED 206 Phys. Ed.: Health 2
<u>17</u>	<u>17</u>

¹ Elective must be from the following law enforcement electives:

LAE 205 – Juvenile Procedures
LAE 206 – Juvenile Delinquency
LAE 207 – Problems of Drug Addiction & Vice Control
LAE 250 – Police Internship

² Three hours of electives must be from one of the following courses:

DPR 101 – Introduction to Data Processing
BUS 211 or 212 – Business Law
BUS 121 or 122 – Typing
HIS 111 or 112 – History of American People
HIS 141 or 142 – History of Western Civilization
BUS 150 – Business Mathematics
PHS 101 – Physical Science

MARKETING AND RETAILING

The two-year program in marketing and retailing is designed for students who have career objectives in retailing, wholesaling and service business. Close contacts are maintained with businesses in the college community in order to offer the student the training retail firms demand.

First Year

FIRST SEMESTER	SECOND SEMESTER
BUS 111 Bus. Org. & Mgt. 3	English elective 3
ENG 101 Composition 3	BUS 145 Marketing 3
PSY 101 Intro. to Psych. 3	PSY 145 Psych. in Bus. and Industry 3
BUS 140 Salesmanship 3	Social Science elective 3
BUS 103 Bus. Rec. Keeping 3	Math. Elective 3
Physical Ed. elective 1	Physical Ed. elective 1
<u>16</u>	<u>16</u>

Second Year

FIRST SEMESTER	SECOND SEMESTER
BUS 211 Bus. Law I 3	BUS 212 Bus. Law II 3
BUS 250 Retailing 3	BUS 261 Mkt. and Mgt. 3-6
BUS 217 Advertising 3	Trends & Practices elective.... 3
DPR 101 Intro. to Data Pro. ... 3	BUS 103 Bus. Rec. Keeping.... 3
ECO 201 Prin. of Economics ... 3	Humanities elective 3
<u>15</u>	<u>15</u>

MECHANICAL DESIGN

Mechanical Design is a two-year technical program leading to an associate in applied science degree. The program is designed to train students in the field of mechanical design and drafting. The curriculum includes courses in mechanical design and drafting, mathematics, physics, and general education.

Graduates will be employed in such positions as mechanical designers, mechanical draftsmen, machine designers, tool and die designers, mechanical engineering technicians, and technical salesmen.

First Year

FIRST SEMESTER	SECOND SEMESTER
ENG 101 Composition 3	ENG 102 Composition 3
Social Science elective 3	Social Science elective 3
MCD 101 Drafting I 4	MCD 102 Drafting II 4
MTH 106 Tech. Math I 4	ART 121 Design I 3
PHY 101 Tech. Physics I 4	MTH 107 Tech. Math II 4
<u>18</u>	<u>17</u>

Second Year

FIRST SEMESTER	SECOND SEMESTER
MCD 103 Tech. Mechanics I . . 1	MCD 203 Tech. Mechanics II . . 3
MCD 201 Tool Design 4	MCD 204 Metals 4
MCD 202 Drafting III 4	MCD 215 Drafting IV 4
MCD 210 Fortran Program . . . 3	Humanities elective 3
Physical Ed. elective 1	Physical Ed. elective 1
<u>15</u>	<u>15</u>

ASSOCIATE DEGREE NURSING PROGRAM

The ADN program is two years in length and leads to an associate in applied science degree. It is designed to prepare students to become Registered Nurse practitioners. The curriculum includes courses in the sciences and liberal arts plus clinical experiences in a variety of community health agencies.

Graduates, after passing the state board examination for licensure, are qualified for a variety of satisfying and interesting positions as Registered Nurses in hospitals, clinics, nursing homes, rehabilitation centers, and many other specialized care settings.

First Year

FIRST SEMESTER		SECOND SEMESTER	
ENG 101 Composition	3	ENG 102 Composition	3
BIO 125 Bio-Physical Sci.	4	BIO 126 Bio-Physical Sci.	4
SOC 101 Intro. to Sociology . . .	3	PSY 101 Intro. to Psych.	3
NUR 101 Found. of Nursing . . .	5	NUR 102 Found. of Nursing . . .	5
Physical Ed. elective	1	Physical Ed. elective	1
	<u>16</u>		<u>16</u>

Second Year

FIRST SEMESTER		SECOND SEMESTER	
Humanities elective	3	Humanities elective	3
Elective*	3	Elective	3
NUR 201 Phy. & Mental Ill. . .	10	NUR 202 Phy. & Mental Ill. . .	10
	<u>16</u>		<u>16</u>

*Elective from biological, physical, or social science.

SECRETARIAL SCIENCE

Secretarial science is a two year program leading to the degree of associate in applied science. 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 agencies, including manufacturing firms, government agencies, schools and colleges, insurance companies, banks and hospitals.

First Year

FIRST SEMESTER	SECOND SEMESTER
ENG 101 Composition 3	ENG 102 Composition 3
Social Science elective 3	Social Science elective 3
BUS 111 Bus. Org. & Mgt. 3	BUS 150 Bus. Math. 3
BUS 121 Elem. Typing* 2	BUS 122 Inter. Typing 3
BUS 125 Elem. Shnd.* 4	BUS 126 Inter. Shnd. 4
Physical Ed. elective 1	Physical Ed. elective 1
<u>16</u>	<u>17</u>

Second Year

FIRST SEMESTER	SECOND SEMESTER
BUS 103 Bus. Rec. Keeping . . . 3	BUS 130 Bus. Writing 3
BUS 221 Adv. Typing 3	BUS 131 Office Machines 2
BUS 225 Adv. Shnd. and Transcription 4	BUS 226 Trans. & Dict. 3
Elective 3	BUE 235 Sec. Practice 3
Humanities elective 3	BUS 236 Sec. Seminar 1
<u>16</u>	<u>3</u>
	<u>15</u>

*Typing and Shorthand placement will be based on evidence of existing skills. Electives may be substituted.

TRANSFER PROGRAMS

Harper College offers the first two years of most four year college programs. For example, students interested in the following areas of study can spend their first two years at Harper College qualifying for an associate degree and then transfer to a four year institution without loss of time or credit:

Architecture	Music
Art	Engineering
Biology	Dentistry
Business	Medicine
Chemistry	Pharmacy
Education	Physical Education
Foreign Language	Physics
Liberal Arts	Speech
Mathematics	Veterinary Medicine

In general students in a transfer program will take courses at Harper College to satisfy the general education graduation requirements of the institution to which they plan to transfer. Because students from Harper will be transferring to a wide variety of institutions, and because each has different requirements, these programs are not listed in this catalog. Harper College will provide professional counselors to aid the student in the development of his

program. Each program will be designed in accordance with the individual needs of the student.

HARPER COLLEGE LIBRARY

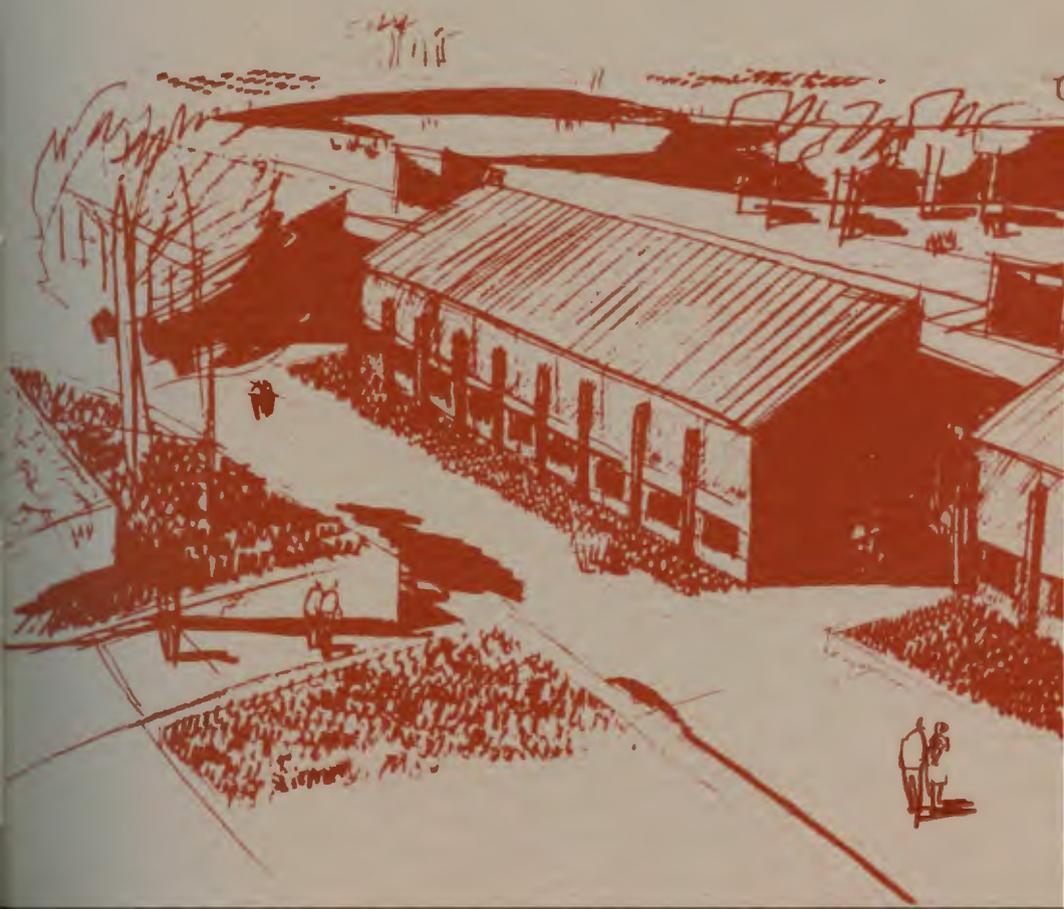
Harper Library will offer more than 6,000 cataloged books to the student body on opening day in September, 1967, and its holdings will increase steadily from then on. To augment the reference collection, the library has acquired an extensive collection of magazine indexes. The periodical collections consists of 175 current periodicals, bound yearly issues and back copies on microfilm. Non-printed matter includes a record collection, tape recordings, film-strips, slides and other audio-visual materials. The library staff will assist students in locating materials for term papers, organizing reference materials, and providing access to books outside the library through inter-library loan services.

SUMMER SESSION

Harper's first summer session will be held for eight weeks in 1968, from June 13 to August 16. Course offerings for this session will be in such areas as English, science, mathematics, humanities, and business; however, should a survey of the students or the community reveal a need in some particular subject field, special consideration will be given to widen the scope of the summer program.

ADULT EDUCATION

Although primary concern for Harper's opening year will be for the transfer and career programs, plans are under way to begin an adult education program in consultation with the director of such programs already in operation in District 211 and 214. Registration for courses will be during the regular registration period beginning September 8. The titles of specific courses will be announced prior to registration, along with information concerning the length of each course, credit provisions — if any, and the amount of fees. Every effort will be made to provide courses that will be in response to community needs and afford both enjoyment and practical benefit to the participant.



ARCHITECTURE

ARC 103 Architectural Drawing I (2-4) 3 hrs.
Basic drawing concepts: lines, lettering, use of instruments, orthographic projection, pictorials, prospective, and free-hand sketching. Plans, elevations, sections, building materials and construction of a single building.

ARC 104 Architectural Drawing II (2-4) 3 hrs.
Continuation of ARC 103, including site study, use of local and state codes, and structural requirements. Sun orientation and control along with shades and shadows. Case problems.
Prerequisite: ARC 103.

ANTHROPOLOGY

ANT 102 General Anthropology (3-0) 3 hrs.
Human origins and early man, race and racism, archeology, and the beginning of early civilization.

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.
Prerequisite: ANT 102.

ART

ART 105 Art Appreciation (3-0) 3 hrs.
Introduction to basic principles in architecture, sculpture, painting, and related art. For non-art students and pre-teachers.

ART 110 Drawing I (6-0) 3 hrs.
Introduction to theory and practice in the elements of drawing. Studio and lecture.

ART 111 Drawing II (6-0) 3 hrs.
Continuation of ART 110. Introduction to theory and practice in elements of drawing. Studio and lecture.

ART 121 Design I (6-0) 3 hrs.
Introduction to theory and practice in the elements in design. Studio and lecture.

ART 122 Design II (6-0) 3 hrs.
Continuation of ART 121. Introduction to theory and practice in the elements in design. Studio and lecture.

ART 125 Figure Drawing I (6-0) 3 hrs.

Drawing the human figure in action and from still poses. Rapid sketching, long poses, memory work portraiture. Studio and lecture.

Prerequisite: ART 111.

ART 126 Figure Drawing II (6-0) 3 hrs.

Continuation of ART 125. Studio and lecture.

Prerequisite: ART 125.

ART 131 Drawing Theory I (6-0) 3 hrs.

Orthographic, oblique, isometric projections and perspective. Studio and lecture.

ART 132 Drawing Theory II (6-0) 3 hrs.

Continuation of ART 131. The science of shades and shadows in orthographic, oblique, isometric projections and perspective. Studio and lecture.

Prerequisite: ART 131.

ART 136 Composition I (4-0) 2 hrs.

Pictorial composition in line, pattern, and color. Studio and lecture.

Prerequisite: ART 111, 122, 132.

ART 137 Composition II (4-0) 2 hrs.

Continuation of ART 136. Studio and lecture.

Prerequisite: ART 136.

ART 151 Water Color Painting (4-0) 2 hrs.

Still life, landscape, and figure painting in a variety of techniques in water color. Studio and lecture.

ART 161 Oil Painting Techniques (4-0) 2 hrs.

Oil techniques, color theory and harmony. Painting and sketching of still life, landscape, and figures. Studio and lecture.

ART 162 Advanced Oil Painting (4-0) 2 hrs.

Oil painting technique offering a wider variety of creative experiences and opportunity to develop individuality of style in this painting medium. Studio and lecture.

ART 170 Commercial Art (4-0) 2 hrs.

Typography, design, and visual theory applied to sales and marketing problems with emphasis on the various processes of printing reproduction.

ART 180 Interior Design Workshop (4-0) 2 hrs.
Discussion and studio work based on principles of art, consumer education, and budgets. Color, furniture styles and arrangements; wall, window and floor treatments; fabrics; lighting; accessories; and room planning. Studio and lecture.

ART 191 Ceramics (4-0) 2 hrs.
Slab, coil, wheel, free form, ceramic sculpture methods. Firing and glazing in various materials. Studio and lecture.

ART 196 Sculpture (4-0) 2 hrs.
Anatomical and ornamental forms in plaster, clay, and stone. Studio and lecture.

ART 201 Drawing III (6-0) 3 hrs.
Development of interpretive and representational skills through work in a variety of drawing media. Studio and lecture.

ART 202 Drawing IV (6-0) 3 hrs.
Continuation of ART 201. Studio and lecture.
Prerequisite: ART 201.

ART 206 Print Making (4-0) 2 hrs.
Linoleum and wood-block printing, silk screen etching, and lithography. Two, three and four color separation. Studio and lecture.

BIOLOGY

BIO 101 General Biology (3-0) 3 hrs.
Organisms: their procurement, preparation, and utilization of food. Bodily processes and activities related to physiology and hygiene in man.

BIO 102 General Biology (3-0) 3 hrs.
Continuation of BIO 101.

BIO 111 General Biology (2-4) 4 hrs.
Objective similar to BIO 101 except that laboratory experience deepens the understanding and application of principles.

BIO 112 General Biology (2-4) 4 hrs.
Continuation of BIO 111.

BIO 120 Human Structure & Function I (2-4) 4 hrs.
Structural and functional approach to the cell, tissues, embryology, the skeletal, muscular, circulatory, and digestive systems.

BIO 121 Human Structure & Function II (2-4) 4 hrs.
Continuation of BIO 120. Structure and function of the nervous, respiratory, excretory, endocrine, and reproductive systems.

- BIO 125 Bio-Physical Science I (3-2) 4 hrs.**
Interrelationships of content and application of essential principles from anatomy and physiology, chemistry, microbiology and basic clinical pathology.
- BIO 126 Bio-Physical Science II (3-2) 4 hrs.**
Continuation of BIO 125.
Prerequisite: BIO 125.
- BOT 201 General Botany (2-4) 4 hrs.**
Plants and their growth, major biological principles; structure, physiology, and reproduction of flowering plants; and a survey of the plant kingdom.
- BOT 202 General Botany (2-4) 4 hrs.**
Continuation of BOT 201. Survey of the plant kingdom. Evolutionary relationships.
- MIC 200 Microbiology (2-4) 4 hrs.**
Bacteria, yeast, and molds: their structure, ecology and physiology. Significance of these organisms to man.
Prerequisite: BIO 101 or 111 or consent of instructor.
- ZOO 211 Invertebrate Zoology (3-5) 5 hrs.**
Fundamentals of animal morphology, physiology, genetics, and ecology. Dissections, experiments in breeding and regeneration, and ecological observations.
Prerequisite: BIO 111 or consent of instructor.
- ZOO 212 Vertebrate Zoology & Comparative Anatomy (3-5) 5 hrs.**
Classification and comparative anatomy of vertebrates including functions, and evolution of their organs and organ systems.
Prerequisite: Grade of "C" in BIO 111 and BIO 112.

BUSINESS

- BUS 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.
- BUS 102 Accounting II (3-0) 3 hrs.**
A continuation of BUS 101 with emphasis on partnerships, corporations, branches, and departments. Interpretation of financial statements, basic valuation and cost concepts, reporting of manufacturing costs.
Prerequisite: BUS 101.

BUS 103 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.

BUS 104 Payroll Accounting (3-0) 3 hrs.

Preparation of complex payroll records including tax returns for old-age benefits and unemployment insurance. Social Security law applied.

BUS 110 Introduction to Business (3-0) 3 hrs.

Survey of principles and practices. Managerial viewpoint. Organization, management, labor problems, marketing costs and price policies.

BUS 111 Business Organization & Management (3-0) 3 hrs.

The nature of business and its dominant fields and types, the organization and management of business, including functional aspects of business, labor problems, accounting statistics, and budgetary control.

BUS 121 Elementary Typing (4-0) 2 hrs.

The operation, use, and care of the typewriter. Typing by the touch method in copying rough drafts and finished material up to a minimum of 30 words per minute.

BUS 122 Intermediate Typing (6-0) 3 hrs.

Development of speed and accuracy in typing manuscripts, business letters and forms. Minimum speed requirement — 40 words per minute.

BUS 125 Elementary Shorthand—Gregg (3-2) 4 hrs.

Development of skill in reading and fluency in writing shorthand. Familiar material at a minimum rate of 70 words per minute and new material at 50 per minute for three minutes.

BUS 126 Intermediate Shorthand (3-2) 4 hrs.

Further development in reading and writing shorthand. Introduction to transcription techniques. Dictation rate of 80 words per minute on familiar material and 60 words per minute on new material over a period of five minutes.

Prerequisite: BUS 125 with a grade of C or better.

BUS 130 Business Writing I (3-0) 3 hrs.

Formal and psychological aspects of business correspondence. Acquaintance with various kinds of business letters, memoranda, and reports. Improvement of grammar, spelling, and word usage. Study of records administration with rules for indexing and filing.

Prerequisite: ENG 101 or consent of instructor.



- BUS 131 Office Machines I (4-0) 2 hrs.**
Use of familiar duplicating devices and adding, calculating, and transcribing machines.
- BUS 132 Office Machines II (4-0) 2 hrs.**
A continuation of BUS 131 with emphasis on advanced skill in the use of one or more of the machines introduced in BUS 131.
Prerequisite: BUS 131 or consent.
- BUS 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.
- BUS 145 Marketing (3-0) 3 hrs.**
Principles, functions, and objectives of marketing, including product, market, pricing, promotion and distribution related to movement of industrial and consumer goods in the marketing system.
- BUS 150 Business Math (3-0) 3 hrs.**
The study of 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 graphs and charts design.
- BUS 201 Intermediate Accounting I (3-0) 3 hrs.**
A problem course in accounting principles begun in BUS 101 and 102. Application of funds, analysis of inventories, amortization and depreciation, and cost expirations.
Prerequisite: BUS 102.
- BUS 202 Intermediate Accounting II (3-0) 3 hrs.**
Accounting for corporations, cash and receivables, inventories, tangible and intangible assets, investments and statements of application of funds.
Prerequisite: BUS 201.
- BUS 203 Introductory Cost Accounting (3-0) 3 hrs.**
Use of costs for control and decision making, with emphasis on determining and reporting standard costs, process costs, job costs, direct and indirect costs, and budgetary control.
Prerequisite: BUS 101.
- BUS 211 Business Law I (3-0) 3 hrs.**
Law of business transactions. Contracts, agency, employment and partnerships. Uniform Commercial Code.
- BUS 212 Business Law II (3-0) 3 hrs.**
Law covering negotiable instruments, sales, real estate, bailments and the Uniform Commercial Code where applicable.
Prerequisite: BUS 211.

- BUS 217 Advertising (3-0) 3 hrs.**
Principles, functions, and techniques of advertising related to marketing system.
Prerequisite: BUS 145 or consent of instructor.
- BUS 218 Introduction to Finance (3-0) 3 hrs.**
Methods of financing business enterprises and their relationships to personal and company investment policies.
Prerequisite: BUS 201.
- BUS 221 Advanced Typing (6-0) 3 hrs.**
Development of high speed and proficiency in typing from rough draft, tabulations and statistics. Practice in writing legal papers; editing and preparing master copies for duplication process. Minimum speed requirement – 50 words per minute.
Prerequisite: BUS 122, or equivalent, with grade of C or better.
- BUS 225 Advanced Shorthand & Transcription (6-0) 4 hrs.**
Skill in taking dictation of new material and improvement in transcription techniques. Increased speed in transcribing. Requirement: minimum dictation of 100 words per minute on familiar material, 70 words per minute on new material, for five minutes with minimum transcription rate of 20 words per minute.
Prerequisites: BUS 122 and 126 with grades of C or better.
- BUS 226 Transcription and Dictation (5-0) 3 hrs.**
Continued development of shorthand vocabulary and skill through a concentrated emphasis on dictation.
Prerequisite: BUS 221 and 225.
- BUS 228 Speed Shorthand and Specialized Dictation (2-2) 3 hrs.**
High speed dictation transcription through shorthand; legal and technical dictation; testimony, conference, and court reporting. Sustained writing speed of 120 to 160 words per minute.
Prerequisite: BUS 226.
- BUS 229 Speed Shorthand and Specialized Dictation (2-2) 3 hrs.**
Continuation of BUS 228.
Prerequisite: BUS 228.
- BUS 235 Secretarial Practice (6-0) 3 hrs.**
Secretarial duties performed in modern business offices, integrating advanced shorthand, advanced typing, dictated and machine transcription, modern filing techniques, and varied secretarial office problems.
Prerequisite: BUS 225 and 221.

BUS 236 Secretarial Seminar (2-0) 1 hr.

Variety of professional experiences to effect an awareness of the responsibilities and duties of an executive secretary. Visits to modern business offices, panel discussions, speakers from local business and industry, secretarial social graces and films and slides of interest and value to secretarial majors.

BUS 237 Secretarial Seminar (2-0) 1 hr.

Continuation of BUS 236.

BUS 250 Principles of Retailing (3-0) 3 hrs.

Comprehensive study of business functions involved in retailing. Current trends and problems.

BUS 255 Small Business Management (3-0) 3 hrs.

Organization and operation of 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.

BUS 261 Marketing and Management

(3-0 or 3-3)

3 or 6 hrs.

Products, services and functions of marketing and management. Development of decision making skills through the project method of instruction. Three hours of credit given for approved supervised work experience. Weekly seminar for working students.

Prerequisite: Permission of instructor.

BUS 265 Personnel Management (3-0) 3 hrs.

Personnel problems and labor relations. Employment techniques, wages and hours, job evaluation, training, ratings, collective bargaining, pensions and fringe benefits.

Prerequisite: BUS 111 or consent of instructor.

BUS 270 Principles of Management (3-0) 3 hrs.

Fundamental considerations, planning, organizing, actuating and controlling in management. Application of principles and techniques to all activities, including those of schools, business, and government.

Prerequisite: Consent of instructor.

CHEMISTRY
CHM 121 General Chemistry I (2-4) 4 hrs.

Fundamentals of inorganic chemistry including simple chemical arithmetic. For students with no credit in high school chemistry. Prerequisite: At least one year of high school algebra with a grade of "C" or better or MTH 95 with a grade of "C" or better.

CHM 122 Chemistry of the Metallic Elements (2-4) 4 hrs.

Continuation of the study of fundamental principles and theory, the descriptive chemistry of some non-metals and an introduction to organic chemistry.

Prerequisite: CHM 121.

CHM 131 General Chemistry (3-5) 5 hrs.

Principles and theories of inorganic chemistry including molecular, atomic, nuclear, and electronic theories of matter related to the periodic table. Oxidation-reduction and ion exchange; theories of solution. For students in chemistry, chemical engineering, or physical science curricula.

Prerequisite: One year of high school chemistry with at least a "B" average; credit or registration in MTH 105.

CHM 132 General Chemistry and Quantitative Analysis (3-6) 5 hrs.

For students in chemistry, chemical engineering or physical science curricula.

Prerequisite: CHM 131.

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.

Prerequisite: CHM 132.

CHM 205 Organic Chemistry II (2-3) 3 hrs.

Continuation of CHM 204.

Prerequisite: CHM 204.

DATA PROCESSING**DPR 101 Introduction to Data Processing (3-0) 3 hrs.**

The history of data processing, scope and significance of data processing, mechanical data processing, punched card unit records, punched card machine functions, electronic data processing equipment, and basic computer concepts.

DPR 102 Electro-Mechanical Equipment (3-4) 4 hrs.

Concepts and techniques of the operation and the control panel wiring of unit record equipment. Extensive laboratory experience in planning and applying the functions of unit record machines to typical business data processing applications.

DPR 103 Key Punching and Verifying I (1-4) 2 hrs.

First of two-course sequence designed to develop a high level of skill in programming and operating the IBM key punch and verifier. Development of speed and accuracy in key punching and verifying.

DPR 104 Key Punching and Verifying II (1-4) 2 hrs.

Continuation of DPR 103. In addition, program card function and preparation, function and use of alternate programming, automatic duplication, left-zero insertion, and multiple-punch key punching and verifying.

Prerequisite: Key Punching and Verifying I.

DPR 105 Business Machines Operation (1-4) 2 hrs.

Operating of adding machines, desk calculators, duplicating machines, and office copying machines. Emphasis on operating the sorter, collator, reproducer, forms decollator and forms burster.

Prerequisite: DPR 101 or consent of instructor.

DPR 110 Computer Programming I (4-4) 5 hrs.

First of a three-course series. Functional components of computer systems, the evolution of computer programming, block diagramming techniques, and program writing, testing, debugging and documentation using a symbolic language. Extensive laboratory experience in planning, writing and testing programs for typical business application.

DPR 150 Data Processing Mathematics I (3-0) 3 hrs.

For Data Processing students. Concepts of notation, number bases, precision and significance, iterative process, logic, and Boolean Algebra.

Prerequisite: College Algebra or consent of instructor.

DPR 201 Computer Programming II (3-4) 4 hrs.

Continuation of DPR 110. Programming magnetic tape, random storage devices, optical mark readers, and remote terminal systems, including the use of IOCS for the various input-output devices.

Prerequisite: DPR 110.

DPR 202 Programming Systems (3-2) 3 hrs.

Purpose and functions of various programming systems. Program compilers, report generators, micro and macro-generators, and utility programs. In-depth study of operating systems — their purpose, structure, and various functions.

Prerequisite: MTH 103 and DPR 150 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 and 102 and BUS 101 or consent of instructor.



DPR 204 Systems Analysis and Design II (3-0) 3 hrs.
Continuation of DPR 203. Concepts in management information systems. Source data automation, data capture equipment, teleprocessing equipment, time-sharing systems, and total integrated information systems concepts.
Prerequisite: DPR 203.

DPR 210 Advanced Programming Languages (4-4) 5 hrs.
In-depth skill in high level programming languages. COBOL and FORTRAN compiler languages. Extensive laboratory experience in writing, testing, debugging, and documenting programs for various business applications.
Prerequisite: MTH 103, DPR 150 or consent of instructor.

DPR 230 Field Project and/or Case Study (1-5) 3 hrs.
Application of data processing skills in a practical situation. Field project or case study in a local data processing installation.

DPR 250 Data Processing Mathematics II (4-0) 4 hrs.
Continuation of DPR 105. Elementary statistical methods: measures of central tendency; dispersion; probability; confidence intervals; and correlation.
Prerequisites: DPR 150 or consent of instructor.

ECONOMICS

ECO 115 Consumer Economics (3-0) 3 hrs.
Consumer practices with emphasis on buying of investments, shelter, insurance and basic commodities.

ECO 201 Principles of Economics I (3-0) 3 hrs.
Economic problems faced by our society. Basic concepts of production, consumption and distribution.
Prerequisite: Sophomore standing or consent of instructor.

ECO 202 Principles of Economics II (3-0) 3 hrs.
Continuation of ECO 201. Examination of resource allocation, national income, economic development and international economic relations.
Prerequisite: ECO 201.

ECO 215 Economics Statistics I (3-0) 3 hrs.
Methods of collection, presentation, and interpretation of quantitative economics data: averages; dispersion, index numbers; time series; analyses; probability; sampling; tests of significance; statistical quality control; secular trend and linear correlation.
Prerequisite: Credit or registration in ECO 201.

ECO 216 Economics Statistics II (3-0) 3 hrs.
Continuation of ECO 215.
Prerequisite: Credit or registration in ECO 215.

EDUCATION

EDU 201 Introduction to Education (3-0) 3 hrs.

Organization, administration and finance of American public education; issues and trends.

EDU 211 Educational Psychology (3-0) 3 hrs.

Psychological principles as applied to education. Assessment of aptitudes, capacities, interests and achievements; educational implications of physical, emotional and social development. The student, teacher, school and home as factors in the educative process. Classroom observation required.

Prerequisite: PSY 101.

ELECTRONICS

ELT 101 D.C. Electricity (3-3) 4 hrs.

Direct current fundamentals involving electrical and magnetic circuit properties. Topics include electron theory, electrical units, resistance, Ohm's Law, Kirchhoff's Law, network theorems, energy and power, magnetic circuits, and electrical measurements. Practical laboratory experience in circuits and instrumentation.

Prerequisites: MTH 106 and PHY 101 or concurrent enrollment.

ELT 102 A.C. Electricity (3-3) 3 hrs.

Passive components resistance, inductance, and capacitance under transient and sinusoidal voltage conditions. Series and parallel circuits in resonant and non-resonant conditions, using vector algebra for problem solution. Circuit Q, power factor correction, transformers, and filters.

Corequisites: MTH 107 and PHY 102.

Prerequisite: ELT 101.

ELT 103 Electrical Drafting (4-0) 2 hrs.

The theory and application of electrical drafting emphasizing electricity and electronics rather than power. Electrical and electronic symbols; drawing, reading and checking of prints; use of course information; and design of simple, complete pieces of electronic equipment.

Prerequisite: ELT 102.

ELT 112 Principles of Electronics Technology (2-2) 3 hrs.

For technology students not enrolled in the Electronics Program. Theory, principles, and practices of electronics technology. Measuring devices and methods of instrumenting physical events electronically.

ELT 201 Electronics I (3-3) 4 hrs.

Introductory course in the operation of electron tubes and semi-conductors. Characterization and graphic analysis of thermi-

onic diodes, semi-conductor diodes, photo-electric devices, transistors, and multi-element vacuum tubes. Equivalent circuits studied in a systematical application.

Prerequisite: ELT 101-102.

ELT 202 Electronics II (3-3) 4 hrs.

Combining of active and passive components to form circuits having specific utility. Power supplies, cascaded amplifiers, power amplifiers, feedback circuits, sinusoidal and non-sinusoidal generators, wave shaping circuits, and gating circuits. Experiments in circuit operation and the effects of circuit values on the range and variety of circuit application.

Prerequisite: ELT 201.

ELT 203 Physical Electronics (3-0) 3 hrs.

A survey of modern physics leading up to and including the properties of solids. Experimental evidence for the particle nature of matter, particle nature of electricity, wave nature of particles, particle nature of waves, quantization of energy, and electrical and magnetic properties of solids.

Corequisite: ELT 202.

ELT 204 Electronic Instrumentation (3-0) 3 hrs.

Electronic methods of sensing and controlling physical industrial processes. Transducers, measurement of physical properties, indicators and recorders and controllers.

Prerequisite: ELT 102.

ELT 205 Electronic Computers (3-0) 3 hrs.

Principles of digital and analog computers. Two valued logic, fundamental logic blocks, solid state switching circuits and storage and memory circuits as applied to digital computers. Operation of analog computers for problem solving application.

Prerequisite: ELT 201 and MTH 107.

ELT 210 Computer Programming — Fortran (3-0) 3 hrs.

Basic Fortran Computer Programming. The solution of electronic and technical problems using modern digital computer techniques.

Prerequisite: MTH 107.

ELT 212 Special Circuits Laboratory (4-0) 2 hrs.

Advanced semi-conductor theory and applications; operating point; equivalent circuits; amplifier design; oscillators.

Prerequisite: ELT 112 and ELT 204.

ELT 213 Industrial Controls (5-0) 3 hrs.

Procedures in the forecasting, planning and control of industrial production. Techniques of establishing and maintaining quality of product including statistical quality control application.

ENGINEERING**EGR 120 Engineering Graphics I (6-0) 3 hrs.**

Graphical methods in multiviewed projections, dimensioning, tolerances, sketching, pictorial representation, threads and fasteners, assembly and working drawings. Plotting of related charts and curves.

Prerequisites: Two years of high school mechanical drawing plus placement test, or consent of instructor.

EGR 150 Analytical Mechanics – Statics (3-0) 2 hrs.

Resultants of force systems, analysis of forces acting on members of trusses, frames, etc.; forces due to friction centroids.

Prerequisites: PHY 121 and PHY 122.

EGR 211 Analytical Mechanics – Dynamics (3-0) 3 hrs.

Displacement, velocity, acceleration of a particle; analysis of 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 215 Survey I (5-0) 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 103.

EGR 216 Surveying II (5-0) 3 hrs.

Route surveying, circular and parabolic curves, spirals, stadia surveying, U.S. Public Land Surveys, elementary land surveying and fundamentals of engineering astronomy used in surveying.

Prerequisite: EGR 215.

ENGLISH**RDG 95 Basic Reading Skills (2-0) 2 hrs.**

The mechanics of reading, vocabulary development and comprehension in preparation for college work.

RDG 99 Development Reading (2-0) 2 hrs.

Increasing speed and efficiency in understanding and analyzing the printed page through films, practice materials, and mechanical aids.

ENG 99 Composition (3-0) 3 hrs.

Reading and writing in clear correct English. For students whose linguistic abilities are insufficient for success in college level English.

- ENG 101 Composition (3-0) 3 hrs.**
Improvement of communication skills. Understanding and clear expression of written English.
Prerequisite: Satisfactory score on a placement test or ENG 99.
- ENG 102 Composition (3-0) 3 hrs.**
Continuation of ENG 101 in the reading and writing of various types of prose. Introduces methods used in writing investigative papers.
Prerequisite: ENG 101 or consent of instructor.
- ENG 103 Report Writing (3-0) 3 hrs.**
Fundamental of semantics, syntax, and rhetoric as applied to business, industrial, and governmental report writing.
Prerequisites: ENG 101 or consent of instructor.
- ENG 130 Introduction to Journalism (2-0) 2 hrs.**
A survey of the journalism field including the mass media and its effects upon opinion processes.
- ENG 131 News Reporting & Writing (3-0) 3 hrs.**
Principals and practices of evaluating, gathering and writing fundamental news story and news feature; preparation of copy for publication; interviewing and laboratory experiences.
Prerequisite: ENG 101 and 130.
- ENG 132 College Publications (1-3) 1 hr.**
Individual guidance through a variety of experiences in the development and publication of the college newspaper and/or yearbook. May be repeated for up to 4 credits.
Prerequisite: ENG 101 or concurrent enrollment.
- 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.**
Guided practice in various types of creative writing, emphasizing skills common to creative expression, description, narration and verse.
Prerequisite: ENG 102 or consent of instructor.
- 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 (3-0) 3 hrs.**
Analysis and appreciation of representative plays of various types and eras, with some attention to origins and trends.

LIT 115 Fiction (3-0) **3 hrs.**
 Novel and short story. Structural analysis, understanding, and appreciation of various types.

LIT 120 Ideas in Prose (3-0) **3 hrs.**
 Significant prose writings in major areas of thought. Ability to understand, enjoy, and evaluate prose material.

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 the Twentieth Century (3-0) **3 hrs.**
 American prose and poetry to the turn of the century, including local color stories, literary journalism, criticism, social and historical novels, and drama. Criteria for judging American literary output.

FRENCH

FRN 101 Elementary French (4-1) **4 hrs.**
 Conversation, pronunciation, grammar, composition, and reading.

FRN 102 Elementary French (4-1) **4 hrs.**
 Continuation of FRN 101. Conversation, composition and reading.
 Prerequisite: FRN 101 or one year of high school French.

FRN 201 Intermediate French (4-1) **4 hrs.**
 Continuation of FRN 102. Increased practice and speed in reading. Syntax and composition.
 Prerequisite: FRN 102 or two years of high school French.

FRN 202 Intermediate French (4-1) **4 hrs.**
 Continuation of FRN 201.
 Prerequisite: FRN 201 or three years of high school French.

FRN 205 Intensive Oral Practice (2-2) **3 hrs.**
 Intensive practice in the spoken language to increase fluency and accuracy.
 Prerequisite: FRN 202 or equivalent or placement test and consent of the instructor.

FRN 210 Introduction to Modern French**Literature (3-0)****3 hrs.**

Continuation of advanced language study with emphasis on modern literature.

Prerequisite: FRN 202 or equivalent.

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 (2-3)****4 hrs.**

Fundamental earth processes: surface features of the earth, weathering erosion, deposition, metamorphosis, and volcanism. Field trip required.

GEO 102 Historical Geology (2-3)**4 hrs.**

The geological history of the earth including the principles employed to reconstruct this history.

GERMAN**GER 101 Elementary German (4-1)****4 hrs.**

Conversation, pronunciation, grammar, composition, and reading.

GER 102 Elementary German (4-1)**4 hrs.**

Continuation of GER 101. Conversation, composition, and reading.

Prerequisite: GER 101 or one year of high school German.

GER 201 Intermediate German (4-1)**4 hrs.**

Continuation of GER 102. Increased practice and speed in reading. Syntax and composition.

Prerequisite: GER 102 or two years of high school German.

GER 202 Intermediate German (4-1)**4 hrs.**

Continuation of GER 201. Reading speed and comprehension. Prerequisite: GER 201 or three years of high school German.

GER 205 Intensive Oral Practice (2-2)**3 hrs.**

Intensive practice in the spoken language to increase fluency and accuracy.

Prerequisite: GER 202 or equivalent or placement test and consent of instructor.



GER 210 Introduction to Modern German**Literature (3-0)****3 hrs.**

Continuation of advanced language study with emphasis on modern literature.

Prerequisite: GER 202 or equivalent.

HISTORY**HST 111 History of the American People
to 1865 (3-0)****3 hrs.**

Colonial beginnings, independence, and early years of the republic. Social, economic, and cultural aspects and political and constitutional development.

**HST 112 History of the American People
Since 1865 (3-0)****3 hrs.**

Developments from the close of the Civil War to the present. The expanding role of the national government in domestic and international affairs.

**HST 141 History of Western Civilization
to 1815 (4-0)****4 hrs.**

The development of Western civilization from ancient times to the rise of nationalism. Political, social, economic, and cultural aspects, including relevant Oriental history.

**HST 142 History of Western Civilization
Since 1815 (4-0)****4 hrs.**

A continuation of HST 141. Development of the American nation. New political, social, and economic trends of the twentieth century, the rise of new ideologies, and the meeting of East and West.

HUMANITIES**FNA 111 History of Art, I (3-0)****3 hrs.**

Art from ancient times to 1600. Area cultural facilities used, particularly the Art Institute of Chicago.

FNA 112 History of Art, II (3-0)**3 hrs.**

Continuation of FNA 111 including the period from 1600 to the present.

**FNA 212 Theatre Arts: Motion Pictures, Drama,
Ballet, Opera, and Music (3-0)****3 hrs.**

Interrelationships and synthesis in the arts as exhibited in motion pictures, theatre, ballet, opera, and music for the theatre. Process of bringing together various artistic media such as literary elements, musical devices, and visual effects to produce these art forms.

HUM 201 Literature & Fine Arts (4-0) 4 hrs.

Introduction to general principles of art by analysis of selected works of literature, music, painting, sculpture, and architecture, with writings in the area of aesthetics.

HUM 202 Literature & Fine Arts (4-0) 4 hrs.

Continuation of HUM 201. Humanistic disciplines. Art works illustrating different stylistic traditions or contrasting solutions to a variety of recurrent themes and problems. Critical and philosophical writings relating various arts or differing attitudes in the western tradition.

Prerequisite: HUM 201.

HUM 206 World Literature to 1800 (3-0) 3 hrs.

Selected works of universal significance contributed by peoples and civilizations from ancient times to 1800.

HUM 207 World Literature Since 1800 (3-0) 3 hrs.

Continuation of HUM 206. Selected works of universal significance contributed by peoples and civilizations from 1800 to the present.

LAW ENFORCEMENT**LAE 101 Introduction to Law Enforcement (3-0) 3 hrs.**

History of development of the police agency in the United States; organization, purpose, and functions of federal, state, and local law enforcement agencies in the administration of criminal justice.

LAE 102 Police Organization and Administration (3-0) 3 hrs.

Functions and activities; policy formation; training and personnel; public relations; records and communications.

LAE 110 Police Operations (3-0) 3 hrs.

Police patrol duties and responsibilities. Distribution and supervision of forces; patrol procedures; traffic law enforcement and accident investigation; and police functions in disasters in civil, racial, and labor disturbances.

Prerequisite: LAE 102 or consent.

LAE 201 Criminal Law I (3-0) 3 hrs.

Nature, sources, and types of criminal law. Substantive crimes and their punishment; rules of evidence; parties to crimes; and criminal procedure.

LAE 202 Criminal Law II (3-0) 3 hrs.

Continuation of LAE 201. Laws of arrest, search, and seizure; evaluation of evidence and proof including kinds, degrees, ad-

missability and competence; courtroom and trial procedures.
Prerequisite: LAE 201 or consent.

LAE 205 Juvenile Procedures (3-0) 3 hrs.

Organization, jurisdiction, and functions of juvenile agencies; detention and processing of juveniles; statutes and court procedures for juveniles; juvenile case disposition.

LAE 206 Juvenile Delinquency (3-0) 3 hrs.

Problems of juvenile delinquency including personality factors, home environment, culture conflict, population, economic status, community factors, police contacts; current social service programs.

LAE 207 Problems of Drug Addiction and Vice 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.

LAE 210 Introduction to Criminology (3-0) 3 hrs.

Crimes and criminals including criminal behavior, explanation of crime, types of crimes and criminals.

LAE 211 Criminal Investigation (3-0) 3 hrs.

Scientific aspects of criminal investigation. Conduct at crime scene, the search for, preservation, and collection of physical evidence; resources of modern, scientific crime investigation.
Prerequisite: LAE 210.

LAE 212 Traffic Administration (3-0) 3 hrs.

History and growth of traffic problems; traffic law enforcement, regulations, and control; fundamentals of traffic accident investigation; Uniform Act Regulating Traffic and Illinois Vehicle Code.

LAE 250 Police Internship (3-0) 3 hrs.

A practicum designed to broaden the experience of students through observation and participation in police duties. Students assigned to local law enforcement agency for a maximum of 10 hours per week in addition to a two hour seminar. Open only to fourth semester students.

Prerequisite: Approval of coordinator.

MATHEMATICS**MTH 94 Arithmetic: A College Approach (3-0) 3 hrs.**

Basic arithmetic principles with an introduction to concepts of algebra.

MTH 95 Algebra: A College Approach (3-0) 3 hrs.

Concepts of algebra including signed numbers, factoring, linear equations, graph, exponents, and quadratic equations. Equivalent to one year of high school algebra.

MTH 96 Geometry: A College Approach (3-0) 3 hrs.

Concepts and constructions of plane geometry including lines, angles, polygons, and circles, with an introduction to trigonometry. Equivalent to one year of high school geometry.

MTH 101 Fundamentals of Mathematics I (3-0) 3 hrs.

Logic and sets, number system, review of selected topics in algebra and geometry, logarithms, modern algebra.

Prerequisite: MTH 95 and 96 or one year each of high school algebra and geometry.

MTH 102 Fundamentals of Mathematics II (3-0) 3 hrs.

Continuation of MTH 101.

Prerequisite: MTH 101 or consent of instructor.

MTH 103 College Algebra (3-0) 3 hrs.

Review of graphs, logic, and set theory. Relations and functions, quadratic equations, determinants, sequences, progression, probabilities, and an introduction to the theory of equations and modern algebra.

Prerequisites: One and one-half years of high school algebra, one year of plane geometry, or satisfactory completion of MTH 102.

MTH 104 Plane Trigonometry (3-0) 3 hrs.

Trigonometric functions and relations, solutions of triangles, logarithms, identities, equations, and applications.

Prerequisite: One and one-half years of high school algebra and one year of plane geometry, or MTH 102.

MTH 105 Analytic Geometry (4-0) 4 hrs.

Rectangular and polar coordinates, the straight line, graphs of algebraic and transcendental functions, transformation of coordinates, conic sections, parametric equations, higher plane curves, and an introduction to space geometry.

Prerequisite: MTH 103 and 104.

MTH 106 Technical Mathematics I (4-0) 4 hrs.

Fundamental algebraic operations, simultaneous and quadratic equations, exponents and radicals, logarithms, introductory

trigonometry, vectors, and the use of the slide rule.

Prerequisites: One and one-half years of high school algebra and one year of plane geometry, or MTH 102.

MTH 107 Technical Mathematics II (4-0) 4 hrs.

Continuation of MTH 106. Logarithms, theory of equations, inequalities, properties of trigonometric functions and applications.

Prerequisites: MTH 106 or consent of instructor.

MTH 111 Introduction to College

Mathematics I (5-0)

5 hrs.

Unifying concepts of functional representation in algebra, trigonometry, and analytical geometry. Variation, differentiation, and integration as seen in analytical, graphical, and functional representation. Equivalent to two hours of MTH 103, two hours of MTH 104, and one hour of MTH 105.

Prerequisite: MTH 102 or equivalent or MTH 101 and consent of instructor.

MTH 112 Introduction to College

Mathematics II (5-0)

5 hrs.

Continuation of MTH 111 extending the concept of functional representation to exponential, logarithmic, implicit quadratic functions of two or more variables and graphical analyses of functions in polar and parametric representations. Applications of differentiation and integration illustrating the functional concept. Equivalent to one hour of college algebra, one hour of trigonometry, and three hours of analytic geometry.

Prerequisite: MTH 111.

MTH 116 The Slide Rule (1-0)

1 hr.

Reading of scales: multiplication, division, and extraction of roots; powers; solutions of trigonometric formulas and triangles involving the use of sine and tangent scales.

MTH 165 Statistics (3-0)

3 hrs.

Tabular and graphic representation; normal distribution, dispersion, statistical inference, sampling, distribution of means, regression and correlation analysis, probability – including finite probability by use of set theory. Applications in education, business, natural and social sciences.

Prerequisite: MTH 101 or consent of instructor.

MTH 201 Calculus I (5-0)

5 hrs.

Differentiation of elementary functions with applications to geometry, physics, and other sciences. Differential, approximation formula of integration, and introduction to the definite integral.

Prerequisite: MTH 105 or 112.

MTH 202 Calculus II (5-0) 5 hrs.

Continuation of Mathematics 201 with emphasis on the definite integral as a sum with applications to geometry, mechanics and physics. Series, partial differentiation and multiple integration, introduction to differential equations with application to rectilinear and curvilinear motion.

Prerequisite: MTH 201.

MTH 206 Technical Math III (3-0) 3 hrs.

An advanced course for the technologies. Analytic geometry, statistics and curve fitting; elementary calculus; applications.

Prerequisite: MTH 107.

MTH 207 Technical Math IV (3-0) 3 hrs.

For students in electrical technology. Differentiation of transcendental functions; methods of integration; expansion of functions in series; Fourier series; differential equations; applications.

Prerequisite: MTH 206.

MTH 208 Fortran Computer Programming (3-0) 3 hrs.

Computer programming using the language of Fortran.

Prerequisite: MTH 104 or MTH 107 or MTH 111.

MTH 212 Differential Equations and Orthogonal Functions (3-0) 3 hrs.

Solutions of first order and first degree differential equations, linear differential equations with constant coefficients, linear differential equations of higher order, special differential equations of second order, and differential equations of first order but not of first degree. Laplace transforms, matrices and determinants. Fourier series.

Prerequisite: MTH 202.

MTH 215 Introduction to Automatic Digital Computing (3-0) 3 hrs.

Topics in machine organization, problem formulation, automatic programming, and applications of computers.

Prerequisite: Sophomore standing and credit or concurrent registration in MTH 212.

MECHANICAL DESIGN**MCD 101 Drafting I (1-6) 4 hrs.**

Development of skills needed for lettering, freehand sketching, and instrument drawing. Includes orthographic projection, pictorial drawing, sectioning, auxiliary views, dimensioning, inking, charts, graphs, and drafting as related to the various manufacturing processes. Introduction to numerical controlled drafting.

MCD 102 Drafting II (1-6) 4 hrs.

Continuation of MCD 101. Includes intersections and developments, screw threads, fasteners, gears, cams, piping and electrical schematics. Drawings related to the welding processes. Preparation of production and assembly drawings from layout. Continuation of numerical control and computer-aided drafting. Prerequisite: MCD 101.

MCD 103 Technical Mechanics I (3-0) 3 hrs.

Fundamentals, statics and strength of materials. Force systems, center of gravity, centroids, equilibrium, fraction and moment of inertia. Concepts of stress and strain, torsion, shear and movement in beams.

Prerequisites: MTH 106 and PHY 101.

MCD 201 Tool Design (1-6) 4 hrs.

Theory and practical projects including design, layout, and detailing of jigs, fixtures, dies, gages and cutting tools. Industrial catalogues used to select commercial and standard components. Newer manufacturing methods and systems such as electro-discharge machining, electro-chemical machining and numerical control machining as they effect design.

Prerequisites: MCD 102 and 103.

MCD 202 Drafting III (1-6) 4 hrs.

Pictorial Illustration. Translation of multiview drawings into axonometric, oblique and perspective drawings. Methods of representation, sectioning, delineation, pictorial procedures, both freehand and with instruments, and shading methods as related to industrial production illustration.

Prerequisite: MCD 102.

MCD 203 Technical Mechanics II (6-0) 3 hrs.

A continuation of strength of materials offered in MCD 103 plus the fundamentals of dynamics. Deflection of beams, combined loading, welded and bolted connections, columns, and introduction of experimental stress analysis. Kinematics of particles and rigid bodies, kinetics, work and energy methods, impulse and momentum, and vibrations.

Prerequisite: MCD 103.

MCD 204 Metals (2-4) 4 hrs.

The theory and practice of hot, cold, chipless, and chipforming metal working processes. Inspection and quality control instruments and techniques. Machine shop estimating. Numerical control of machine tools. Introduction to ferrous metallurgy, hot and cold treatment of steels. TIG, MIG, AC, DC and oxyacetylene welding.

Prerequisite: MCD 105.



MCD 210 Computer Programming—Fortran (3-0) 3 hrs.

Basic course in fortran computer programming. Solution of mechanical and technical problems using modern digital computer techniques.

Prerequisite: MTH 106.

MCD 215 Drafting IV (1-6) 4 hrs.

Application of numerical control to detail drawings, assembly drawings, bills of material, and pictorial drawings. The digital computer related to numerical control.

Prerequisite: MCD 202.

MUSIC**MUS 101 Fundamentals of Music Theory (3-0) 3 hrs.**

Suitable for pre-teachers and non music majors. Provides background to interpret and understand the language of music through the study of notation, rhythm, scales, intervals, triads, cadences, basic forms, and musical terms. Students prepared for study of harmony and for practical music activity.

MUS 103 Music Appreciation (2-0) 2 hrs.

For non music majors. Music from primitive to modern times through listening to outstanding examples of the various periods, with explanations of content and structure. Vocal and instrumental works, examples of folk music, church music, and symphonic forms.

MUS 105 Basic Music Literature (2-0) 2 hrs.

Standard concert repertory through intensive guided listening. Representative works by major composers illustrating the principal forms, styles, and techniques of vocal and instrumental music from the time of Bach to the present.

MUS 111 Theory of Music, I (3-0) 3 hrs.

Intensive training in the fundamentals of musicianship, dealing principally with the mechanical aspects of music — clefs, notation, scales, intervals, meters, rhythms, etc. Daily practice in sight singing, melodic, harmonic, and rhythmic dictation, and practice at the keyboard.

Prerequisite: MUS 101 or equivalent.

MUS 112 Theory of Music, II (3-0) 3 hrs.

Harmony, counterpoint, and analysis, with emphasis on eighteenth- and nineteenth-century techniques; basic principles in the art of musical composition. Instruction by means of written assignments, historical examples, individual research problems, and the complete process of writing, preparing, and bringing to performance with voices and instruments specific individual and group projects in musical composition.

Prerequisite: MUS 111.

MUS 115 Ear Training, Sight Singing and Keyboard**Harmony, I (2-0)****1 hr.**

Practice in melodic, harmonic, and rhythmic dictation, sight singing, and practice at the keyboard.

Prerequisite: MUS 111.

MUS 121 History of Music to 1750 (3-0)**3 hrs.**

Primitive Music; music of the East and Near East; the contribution of the Greeks; the Middle ages, the Gothic period; the Renaissance; the Baroque period culminating with Bach, Handel, Rameau, and Scarlatti. Music illustrations.

MUS 122 History of Music Since 1750 (3-0)**3 hrs.**

The Classical period: Beethoven, the Romantic period: impressionism; the twentieth century. Musical illustrations.

MUS 130 Choir (3-0)**1 hr.**

A mixed-voice chorus for singers with average or above-average ability. Fundamentals of good choral diction and tone will be developed in the presentation of choral works of various styles and types.

Prerequisite: Consent of instructor.

Not more than an accumulated four credit hours counted toward graduation.

MUS 136 Community Chorus (3-0)**1 hr.**

A variety of choral experience including larger choral works such as oratorios and cantatas, and selections from grand opera, comic opera, and musical comedy. A maximum of four credit hours.

MUS 140 Band (3-0)**1 hr.**

Open to all students proficient in the playing of band instruments. Band music of various types and styles. Sight reading and musicianship stressed.

Prerequisite: Consent of instructor. An accumulated four credit hours maximum.

MUS 145 Instrumental Ensembles (3-0)**1 hr.**

Ensembles such as string quartets, brass ensembles, stage bands, or other combinations. For students with some proficiency in a musical instrument. To further skills, musical understanding, and enjoyment.

Prerequisite: Consent of instructor.

Not more than an accumulated four credit hours counted toward graduation.

MUS 150 Class Piano (4-0)**2 hrs.**

Primarily for the adult beginner to meet the needs of prospective Kindergarten-Primary and Elementary teachers, playground supervisors, and those wishing to pursue this study as an avocation. Emphasis on skills needed for practical situations.

MUS 161 Wind Instrument Class, I (4-0) 2 hrs.

For students who have had no previous opportunity to learn to play an orchestral or band instrument and for those instrumentalists already proficient but who desire to learn to play several instruments. Not more than an accumulated four credit hours counted toward graduation.

MUS 165 Class Piano (4-0) 2 hrs.

Open to all students proficient in the playing of orchestral instruments. Orchestral music of various types and styles. Sight reading and musicianship stressed.

Prerequisite: Consent of instructor. An accumulated four credit hours maximum.

MUS 166 String Instrument Class I (4-0) 2 hrs.

Similar to MUS 161. For students who desire to learn to play a stringed instrument. Not more than an accumulated four credit hours.

MUS 170 Minor Applied Music Subject (1-0) 2 hrs.

Minor instrument or voice. One half-hour lesson per week. Minimum of six hours of practice per week.

MUS 180 Major Applied Music Subject (2-0) 4 hrs.

Major instrument or voice. Two half-hour lessons per week. Minimum of twelve hours of practice per week.

MUS 200 Conducting (3-0) 2 hrs.

Fundamentals and practice of baton technique and the essential principles of the musicianly interpretation of the score. Assigned readings, attendance at symphony concerts with score, private consultations, and by affording each student the opportunity to conduct instrumental and vocal groups.

Prerequisite: Consent of instructor.

MUS 211 Theory of Music, III (3-0) 3 hrs.

Harmony, counterpoint, and analysis.

Prerequisite: Music 112.

MUS 212 Theory of Music, IV (3-0) 3 hrs.

Harmony, counterpoint, and analysis.

MUS 216 Ear Training, Sight Singing and Keyboard Harmony, II (2-0) 1 hr.

Practice in melodic, harmonic, and rhythmic dictation, sight singing, and practice at the keyboard.

Prerequisite: MUS 115.

MUS 217 Ear Training, Sight Singing and Keyboard**Harmony, III (2-0)****1 hr.**

Practice in melodic, harmonic, and rhythmic dictation, sight singing, and practice at the keyboard.

Prerequisite: MUS 216.

NURSING**NUR 101 Foundations of Nursing I (3-6)****5 hrs.**

Knowledge and skill necessary for giving basic nursing care, including supporting, maintaining, and providing environmental safety, physiologic functioning, comfort, nutrition, and a therapeutic regimen.

NUR 102 Foundations of Nursing II (3-6)**5 hrs.**

A continuation of NUR 101 including material and child health. Principles of growth and development and problems of adolescence and young adulthood integrated with clinical experience.

Prerequisite: NUR 101.

NUR 201 Nursing in Physical and Mental**Illness I (5-15)****10 hrs.**

Basic knowledge and nursing skills needed for giving care to individuals with specific alterations of physiologic function as well as with major health problems.

Prerequisite: NUR 102.

NUR 202 Nursing in Physical and Mental**Illness II (5-15)****10 hrs.**

A continuation of NUR 201, including the change from student to practitioner: discussions on modern issues in nursing, legal and moral responsibilities of the nurse practitioner, and functions of professional organizations.

Prerequisite: NUR 201.

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, 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.**
Approaches to problems of values and conduct, including such topics as moral goodness, virtue, right, responsibility, goals, and happiness.

PHYSICAL EDUCATION – MEN

100 level courses are service courses. Each meets two hours per week for 1 semester hour of credit. These courses satisfy the P.E. requirement for graduation. Professional courses are numbered 200 and above and are for P.E. majors only.

PED 112 Gymnastics and Tumbling **1 hr.**
Development of skills, knowledge, attitudes and conditions involved in tumbling stunts. Practice on apparatus and mats.

PED 114 Physical Conditioning **1 hr.**
Body conditioning through corrective and warm-up exercises, self-testing stunts, the importance of relaxation and diet, and prescribed practice for further home practice.

PED 124 Basketball **1 hr.**
Skills and attitudes involved in shooting, passing, ball handling, and footwork. Application of team play and strategy in practice games and tournaments.

PED 126 Volleyball **1 hr.**
Basic skills, team play, practice games and tournaments.

PED 130 Golf **1 hr.**
Progressive development of skill in the fundamental grip, stances, and strokes using iron and woods. Terminology, etiquette, scoring, and safety precautions.

PED 136 Tennis **1 hr.**
Theory and practice of tennis play, and rules of scoring. Development of the serve, forehand drive, backhand drive, volley and footwork. Outdoor activity when weather permits.

PED 160 Square Dancing (Coed) **1 hr.**
Typical steps and figures of western square dancing. Round dancers, mixers, quadrilles, and various calls.

PED 174 Badminton **1 hr.**
Serving, strategy, play, and rules of the game. Practice games or tournaments.

PED 176 Bowling **1 hr.**
All-levels class with beginners grouped separately for special attention. Etiquette, scoring, and techniques according to present ability.

PED 186 Track and Field**1 hr.**

Basic skills in track and field events.

PED 188 Wrestling**1 hr.**

Skills, knowledge, attitudes, and conditions. Offensive and defensive maneuvers, escapes and reversals, pinning combinations, and rules. Intra-class competition.

PED 198 Restricted Activity**1 hr.**

For students restricted by health limitations. Individual programs adapted to meet specific requirements. Required for students with medical excuses.

PED 201 Introduction to Physical Education**2 hrs.**

An orientation and history of physical education from ancient times to present day. Objectives and aims of physical education and their applications.

PED 202 Football**2 hrs.**

Analysis, instruction and theories of coaching the fundamental skills, coaching and officiating, styles, play and team strategy.

PED 206 Health**2 hrs.**

Personal and community health. Prescriptions and procedures for maintaining mental and physical health.

Prerequisite: BIO 102 or 112 or consent of instructor.

PED 216 First Aid**2 hr.**

The regulation Standard Official American Red Cross in First Aid. Principles and practices of First Aid; immediate, temporary treatment in case of accident or sudden illness before physician arrives. Official First Aid Standard Senior Certificate granted to students who qualify.

PED 218 Basketball**2 hrs.**

Develop 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 220 Track and Field**2 hrs.**

Skills, rules and coaching techniques used in track and field.

PED 230 Baseball**2 hrs.**

Analysis, instruction and demonstration of fundamental skills, theory of coaching and officiating, styles of play and team strategy.

PHYSICAL EDUCATION – WOMEN

100 level courses are service courses. Each meets two hours per week for 1 semester hour of credit. These courses satisfy the P. E. requirement for graduation. Professional courses are numbered 200 and above and are for P. E. majors only.

PED 115 Basic Movements 1 hr.

A first year foundation course. Free movement activities, knowledge, and appreciation.

PED 125 Basketball 1 hr.

Skills and attitudes involved in shooting, passing, ball handling, and footwork. Team play and strategy applied in practice games and tournaments.

PED 127 Volleyball 1 hr.

Basic skills and importance of team play. Practice games and tournaments.

PED 130 Golf 1 hr.

Progressive development of skill in the fundamental grip, stances, and strokes using irons and woods. Terminology, etiquette, scoring, and safety precautions.

PED 137 Tennis 1 hr.

Theory and practice of tennis play, and rules of scoring, development of the serve, forehand drive, backhand drive, volley and footwork. Outdoor activity when weather permits.

PED 160 Square Dancing (Coed) 1 hr.

Typical steps and figures of western square dancing. Round dances, mixers, quadrilles, and various calls.

PED 165 Folk Dancing 1 hr.

Basic steps in the waltz, polka, mazurka, schottische, and other authentic and traditional folk dances of various countries.

PED 175 Badminton 1 hr.

Basic skills of serving, strategy, play, and rules of the game. Practice games or tournaments.

PED 177 Bowling 1 hr.

All levels class with beginners grouped separately for special attention. Instruction in etiquette, scoring, and techniques according to present ability.

PED 199 Restricted Activities 1 hr.

For students restricted by health limitations. Individual programs adapted to meet specific requirements required for students with medical excuses.



PED 201 Introduction to Physical Education 2 hrs.

An orientation and history of physical education from ancient times to the present day. Objectives and aims of physical education and their applications.

PED 206 Health 2 hrs.

Problems involved in personal and community health. Ways individual can maintain a high degree of mental and physical health.

Prerequisite: BIO 102 or 112 or consent of instructor.

PED 216 First Aid 2 hrs.

The regulation Standard Official American Red Cross in First Aid. Principles and practices of First Aid, to give immediate, temporary treatment in case of accident or sudden illness before physician arrives. Official First Aid Standard Senior Certificate to students who qualify.

PHYSICAL SCIENCE**PHS 101 General Physical Science (3-0) 3 hrs.**

A survey of the development of science; the place of the earth in the universe, geological changes, earth's atmosphere and geologic processes, possible origin of the solar system and geological history.

PHS 102 General Physical Science (3-0) 3 hrs.

Combustion as a form of energy, chemical change; the nature, structure, and classification of chemical elements and compounds; physical, chemical and nuclear changes.

Prerequisite: PHS 101.

PHS 111 General Physical Science (3-2) 4 hrs.

Fundamental principles in the fields of astronomy and geology. The use of mathematics in fundamental mechanical concepts and applications. The earth and geologic processes, the solar system, potential and kinetic energy.

PHS 112 General Physical Science (3-2) 4 hrs.

Combustion as a form of energy, chemical change; nature, structure, and the classification of chemical elements and compounds; physical, chemical and nuclear changes. Principles underlying the use of metals in our civilization. The carbon-nitrogen-hydrogen cycle in the living world.

PHY 101 Technical Physics I — Mechanics and Heat (3-2) 4 hrs.

Statics, dynamics, energy, specific gravity, elasticity, calorimetry, and gas laws.

Prerequisite: MTH 106 or concurrent enrollment.

topics covered are self-understanding, principles of learning,

PHY 102 Technical Physics II – Electricity, Light & Sound (3-2) 4 hrs.
 Electricity and magnetism: fields, inductance, capacitance, direct and alternating current theory and circuits, elements of electronics. Light and sound: waves, reflection, interference, resonance, lenses, diffraction, polarization and doppler effect. Introduction to atomic and nuclear theory.
 Prerequisite: PHY 101.

PHY 121 General Physics I – Mechanics, Heat & Sound (3-5) 5 hrs.
 Principles and practical applications of mechanics, sound, and heat. For students in arts and sciences and architecture.
 Prerequisite: MTH 104.

PHY 122 General Physics II – Electricity, Light, Magnetism (3-5) 5 hrs.
 Continuation of PHY 121.
 Prerequisite: PHY 121.

POLITICAL SCIENCE

PSC 201 American Government: Organization and Powers (3-0) 3 hrs.
 Historical development and organization of national, state, and local governments; the federal system; national and state constitution; civil and political rights; party system; nature, structure, powers, and procedure of legislative, executive, and judicial departments in state and nation.
 Prerequisite: Sophomore standing or consent of instructor.

PSC 202 American Government: Functions (3-0) 3 hrs.
 Functions of national, state, and local governments; foreign relations and national defense; taxation and finance; law enforcement; police power; regulation of commerce, communications, and business; promotion of social and economic welfare; current problems.
 Prerequisite: PSC 201 or consent of instructor.

PSC 204 International Relations (3-0) 3 hrs.
 Major factors affecting international relations with special emphasis on the political, historical and economic elements. Current events stressed.

PSYCHOLOGY

PSY 99 Learning and Adjustment to College (3-0) 3 hrs.
 A course designed primarily for developmental students covering topics essential to successful college adjustment. Among the

study techniques, educational and vocational planning, social adjustment, and general aspects of college life.

PSY 101 Introduction to Psychology (3-0) 3 hrs.
Human behavior, perception, learning, thinking, memory, emotion, motivation, adjustment and personality.

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 216 Developmental Psychology I (3-0) 3 hrs.
Psychological principles applied to the study of children from birth to adolescence.
Prerequisite: PSY 101.

PSY 217 Developmental Psychology II (3-0) 3 hrs.
Continuation of PSY 216 into adolescence and maturity. Some emphasis given to the sociological, psychological, and biological effects of aging.
Prerequisite: PSY 101.

RUSSIAN

RUS 101 Elementary Russian (4-1) 4 hrs.
Conversation, pronunciation, grammar, composition, and reading.

RUS 102 Elementary Russian (4-1) 4 hrs.
Continuation of RUS 101. Conversation, composition, and reading.
Prerequisite: RUS 101 or one year of high school Russian.

RUS 201 Intermediate Russian (4-1) 4 hrs.
Continuation of RUS 102. Increased practice and speed in reading. Syntax and composition.
Prerequisite: RUS 102 or two years of high school Russian.

RUS 202 Intermediate Russian (4-1) 4 hrs.
Continuation of RUS 201. Reading speed and comprehension.
Prerequisite: RUS 201 or three years of high school Russian.

SOCIAL SCIENCE

SSC 201 General Social Science (4-0) 4 hrs.
Biological, physical and social forces in the development of personality. Groups, institutions, and social change. Contemporary social problems, including race, the family, mental health, and education.

SSC 202 General Social Science (4-0)**4 hrs.**

A continuation of SSC 201.

Prerequisite: SSC 201.

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.

SPANISH**SPA 101 Elementary Spanish (4-1)****4 hrs.**

Conversation, pronunciation, grammar, composition, and reading.

SPA 102 Elementary Spanish (4-1)**4 hrs.**

Continuation of SPA 101. Conversation, composition, and reading.

Prerequisite: SPA 101 or one year of high school Spanish.

SPA 201 Intermediate Spanish (4-1)**4 hrs.**

Continuation of SPA 102. Increased practice and speed in reading. Syntax and composition.

Prerequisite: SPA 102 or two years of high school Spanish.

SPA 202 Intermediate Spanish (4-1)**4 hrs.**

Continuation of SPA 201. Reading speed and comprehension.

Prerequisite: SPA 201 or three years of high school Spanish.

SPA 205 Intensive Oral Practice (2-2)**3 hrs.**

Intensive practice in the spoken language to increase fluency and accuracy.

Prerequisite: SPA 202 or equivalent or placement test and consent of the instructor.

SPA 210 Introduction to Modern Spanish**Literature (3-0)****3 hrs.**

Continuation of advanced language study with emphasis on modern literature.

Prerequisite: SPA 202 or equivalent.

SPEECH**SPE 101 Fundamentals of Speech (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 (3-0) 3 hrs.

Development of proficiency in the logic of argument and skill in discussion. Psychological principles underlying successful platform behavior; forms of public address. Analysis and delivery of one such form as a semester assignment.

Prerequisite: SPE 101 or consent of instructor.

SPE 111 Introduction to the Theater (3-0) 3 hrs.

The role of theater as a major fine art and a communicator of ideas, human understanding, and cultural values. Contributions of playwright, actor, director, designer, and technician to the theatrical production. Comparison of ancient and modern media of drama. Analysis and interpretation of selected plays.

HARPER COLLEGE CALENDAR 1967-68

First Semester

Registration	Sept. 8, 11 & 12
Classes Begin	Sept. 13
Thanksgiving Vacation	Nov. 23, 24
Classes Resume	Nov. 27
Christmas Vacation Begins.....	Dec. 22 (12 pm)
Classes Resume	Jan. 8
Final Exams	Jan. 22-27

Second Semester

Registration for Second Semester	Jan. 31, Feb. 1 & 2
Classes Begin	Feb. 5
Spring Vacation	April 8-13
Good Friday	April 12
Easter Sunday	April 14
Classes Resume	April 16
Memorial Day Vacation	May 30
Classes Resume	May 31
Final Exams	June 3-7

Summer Session (8 weeks)

Registration	June 13, 14
Classes Begin	June 17
Independence Day Vacation	July 4, 5
Classes Resume	July 8
Final Exams	August 15, 16

ADMINISTRATION**PRESIDENT**

Lahti, Robert E.

DEAN OF BUSINESS

Perry, James D.

DEAN OF INSTRUCTION

Pankratz, Herbert R.

DEAN OF STUDENTS

Harvey, James

ASSISTANT DEAN OF CAREER PROGRAMS

Cunningham, Harold C.

DIRECTOR OF ADMISSIONS & REGISTRAR

Stansbury, Donn B.

DIRECTOR OF COUNSELING

Seward, Thomas A.

DIRECTOR OF DATA PROCESSING

Sedrel, Roy A.

**DIRECTOR OF INSTITUTIONAL DEVELOPMENT
& COMMUNITY RELATIONS**

Upton, John H.

DIRECTOR OF LIBRARY SERVICES

Lotko, Stanley A.

COORDINATOR OF NURSING PROGRAMS

Heinly, Joanne L.

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M.S., Northern Illinois University

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M.S., Eastern Illinois University

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M.S., Wayne State University

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R.N., 1952

B.S., Hunter College

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M.S., Northern Illinois University

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M.A., Northern Illinois University

GANT, MARY MARTIN, Instructor

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M.A., Northwestern University

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M.A., Columbia University Teacher's College

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M.F.A., University of Iowa

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Ph.D., University of Wyoming

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M.S.A.V., University of Southern California

M.S.L.S., Drexel Institute

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D.Mus. Ed., Chicago Music College

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M.A., University of Iowa

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M.S., Illinois Institute of Technology

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M.A., Northwestern University

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M.S., Northwestern University

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M.A., University of Chicago

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Misic, Donald M.

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Parker, Kenneth W.

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SECRETARY TO THE DEAN

OF INSTRUCTION

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SECRETARY TO THE

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Kamp, Miss Mary

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Vollman, Mrs. Mary

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Akers, Mrs. Barbara

ACCOUNTING

Wise, Mrs. Joanne

PURCHASING

McDonald, Mrs. Jeannine

RECEPTIONIST

Johnson, Mrs. Doloris

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