1973-74 CATALOG
Fifth Edition

SHAWNEE COLLEGE

Shawnee College Road
Ullin, Illinois
Phone (618) 634-2242

VOLUME 5 — NUMBER 1
April, 1973

1973-74 CATALOG

SHAWNEE COLLEGE

Shawnee College Road
Ullin, Illinois

Phone (618) 634-2242

FIFTH EDITION

Volume 5 — Number 1
April, 1973

MESSAGE FROM THE PRESIDENT . . .

I am delighted to welcome you to Shawnee College. You made a wise decision when you decided to join hundreds of other Southern Illinoisans in seeking a quality education at this institution.

Shawnee College staff is of the highest caliber. They are well trained in their respective teaching areas. All of them devote full time to their teaching efforts.

Shawnee College is concerned with each student as an individual. We want to help each of you succeed in your chosen field of study. The successful faculty member at Shawnee College has *compassion* for *you* as an *individual.* He wants you to succeed. The rest is up to you.

LOREN E. KLAUS, President

A MEMBER OF

American Association of Junior Colleges

Council of North Central Junior Colleges

Illinois Association of Community & Junior Colleges

RECOGNIZED BY

Illinois Junior College Board

Illinois Board of Higher Education

Illinois State Scholarship Commission

Illinois Board of Vocational Education

U.S. Office of Health, Education & Welfare

Veterans Administration

RECOGNIZED CANDIDATE STATUS

North Central Association

of

Colleges & Secondary Schools

TABLE OF CONTENTS

ADMINISTRATION

COLLEGE CALENDAR — 1973-74

SHAWNEE COLLEGE INFORMATION

STUDENT SERVICES AND ACTIVITIES

FINANCIAL AIDS

ADMISSIONS

TUITION AND FEES

ACADEMIC REGULATIONS

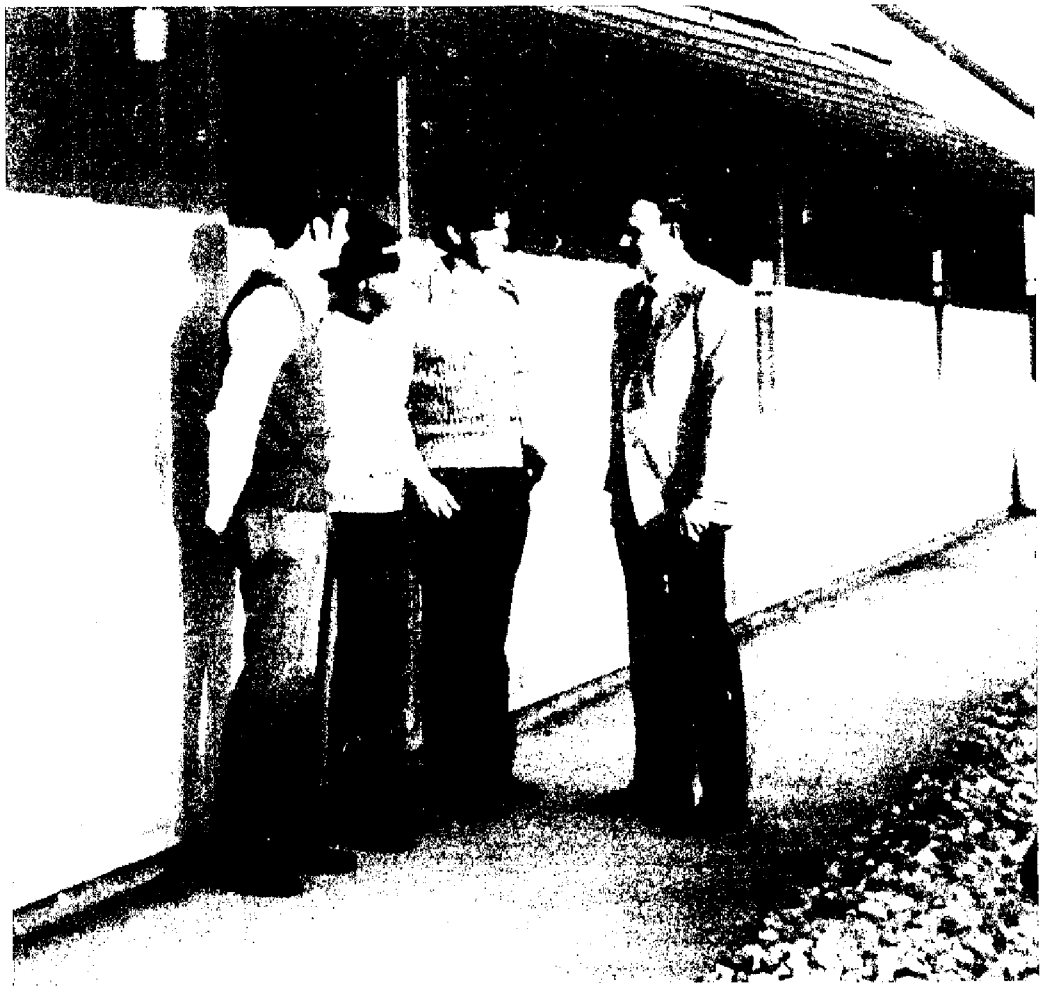
PROGRAMS OF STUDY

OCCUPATIONAL PROGRAMS

CERTIFICATE PROGRAMS

COURSES OF STUDY

GENERAL EDUCATION REQUIREMENTS FOR SENIOR COLLEGES



ADMINISTRATION

ILLINOIS JUNIOR COLLEGE BOARD

Rey W. Brune, Chairman ..... Rock Island
Merlin Karlock, Vice-Chairman ..... Momence
Willard A. Brown ..... Palatine
John K. Cox ..... Bloomington
Frank F. Fowle ..... Northfield
Toussaint L. Hale, Jr. ..... Chicago
Mrs. Louise A. Neyhart ..... Freeport
James W. Sanders ..... Marion
Michael Bakalis ..... Springfield

EXECUTIVE SECRETARY

Fred L. Wellman ..... Springfield

BOARD OF TRUSTEES

Louis G. Horman, Chairman ..... Metropolis
Dr. C. G. Ulrich, Vice-Chairman ..... Dongola
Dr. A. L. Robinson, Secretary ..... Mounds
Leslie Broom ..... Vienna
Donald Jordan ..... Tamms
Delano Mowery ..... Anna
Ralph Taake, Jr. ..... Ullin

ADMINISTRATIVE STAFF

Dr. Loren E. Klaus ..... President
William F. Whitnel ..... Academic Dean
Gene A. Cross ..... Dean of Student Personnel Services
S. Joan Duncan ..... Business Manager
Joel Jennings ..... Dean of Career Education

FACULTY

HAL ANDERSON ..... Agriculture
B.S., M.S., Murray State University

BRADFORD BELT ..... Mathematics
B.A., Southern Illinois University
M.A., Notre Dame

DALE BISHOP ..... Division Chairman — Social Science
B.S., Northeast Missouri State College
M.S., Southern Illinois University

HARTZEL BLACK ..... Associate Dean and Director of M.D.T.A., Vienna Correctional Center
B.S., Murray State University
M.S., University of Kentucky

EDWARD T. BRIDGES ..... Science and Mathematics
B.A., Berea College
M.S., — Ph.D., University of Kentucky

EUGENE BULLARD ..... Psychology
B.A., Southeast Missouri State College
M.S.—Ph.D., Southern Illinois University

RONALD CASE ..... Division Chairman-Business
B.S., Nebraska State Teachers College
M.S., University of Nebraska
Advanced Graduate Work, Southern Illinois University

CAROLYN CONLEY ..... Business
B.S., — M.S., Southern Illinois University

ELVA DeJARNETT ..... Director of Guidance and Counseling
A.B., Asbury College
M.S., Southern Illinois University
Advanced Graduate Work, Southern Illinois University

ALICE C. EDDINS ..... Vocal Music
B.M.E., — M.A., Florida State University

GEORGE FLOYD ..... Development Officer and Health
B.S., Tennessee A & I
M.S., Southern Illinois University

ARNOLD FOSTER ..... Agriculture
B.S., — M.Ed., Sam Houston State University
Ph.D., University of Kentucky

EUGENE S. GERARD ..... Biology and Chemistry
B.S., Murray State University
M.A., Murray State University
Advanced Graduate work, Kansas State Teachers College

REUBEN HAWKINS ..... Drafting
B.S., — M.S., Southern Illinois University

ROSALIE HENNESSY ..... Nursing
R.N., St. Mary's School of Nursing

MAUDIE BELL HILL.....Associate Director of Guidance and Counseling
B.S., University of Illinois
M.S.W., Atlanta University
M.S., Southern Illinois University

L. H. HILTERBRAND .....Division Chairman-Agriculture
B.S., — M.S., — Ed.D., University of Missouri
Post-Doctoral Study, Purdue University

THOMAS A. JONES ..... Basketball Coach and Placement Officer
B.A., Huron College
M.A., South Dakota State University

HERMAN C. LAWRENCE .....Vocational Coordinator
A.B., Trevecca Nazarene College
M.S., University of Missouri

HENRY C. PEPPER .....Social Science
B.A., — M.A., University of Missouri
Ph.D., State University of Iowa

PRYNTHA RODGERS..... Nursing
R.N., St. Mary's School of Nursing

IRENE RONDEAU.....English
B.S., — M.S., Southern Illinois University
Advanced Graduate Work, Southern Illinois University

JON SAMS ..... French and Spanish
B.S., Eastern Illinois University
M.S., University of Wisconsin
Advanced Graduate Work, Louisiana State University

ALAN R. SCHAFFER ..... Business
C.P.A.
B.S., — M.A.S., University of Illinois

JACQUELINE SCHROEDER ..... Business
B.S., — M.S., Southern Illinois University

JOHN B. SHELTON ..... Division Chairman-Language Communications
B.A., David Lipscomb College
M.A., Southern Illinois University
Advanced Graduate Work, Southern Illinois University

JACK K. SISTLER ..... Coordinator Vienna Correctional Center
B.S.-M.S., Southern Illinois University
M.A., Vanderbilt University
Ph.D., Southern Illinois University

ANN TAYLOR ..... Nursing
R.N., St. Luke's School of Nursing

JOHN C. TAYLOR ..... Informational Aide to President
A.B., Bob Jones University
M.A., University of Alabama
Advanced Graduate Work, Southern Illinois University

MARTHA VAN CLEVE ..... Divisional Chairman and LPN Coordinator
B.S., Nursing Education, Loyola University

CLAIRENE WEAVER ..... English
B.A., High Point College
M.A., Murray State University
Advanced Graduate Work, Murray State University

JOSEPH WIEST ..... Science and Mathematics
B.S., Eastern Illinois University
M.S., — Ph.D., University of Kentucky

MERLE WILSON ..... Reading
B.S., Southern Illinois University

MORTON S. WRIGHT ..... Director of Learning Resources
B.S., — M.S., Southern Illinois University

OFFICIAL COLLEGE CALENDAR

SUMMER QUARTER 1973

June 11	Registration
June 12	Instruction begins
June 15	Registration closes
July 4	Legal Holiday — Independence Day
July 6	Mid-term
July 20	Last day to drop classes or apply for audit
August 3	End of quarter

FALL QUARTER 1973

August 23	All faculty report
August 28-29	Freshman Orientation and Seminar
August 30-31	Faculty advisement of freshmen and sophomores
September 3	Legal Holiday — Labor Day
September 4-5	Registration
September 6	Instruction begins
September 14	Registration closes
October 8	Legal Holiday — Columbus Day
October 12	Mid-term
November 9	Last day to drop courses or apply for audit
November 21	End of quarter
November 22-23	Thanksgiving vacation

WINTER QUARTER 1973-74

November 26-27	Registration
November 28	Instruction begins
December 7	Registration closes
December 15	Christmas vacation begins
January 3	School resumes
January 18	Mid-term
February 11	Legal Holiday — Lincoln's Birthday
February 15	Last day to drop courses or apply for audit
February 18	Legal Holiday — Washington's Birthday
March 1	End of quarter

SPRING QUARTER 1974

March 4-5	Registration
March 6	Instruction begins
March 15	Registration closes
April 12	Mid-term
April 19	Easter (Spring) vacation begins
April 29	School resumes
May 17	Last day to drop courses or apply for audit
May 27	Legal Holiday — Memorial Day
May 31	End of quarter
June 2	Commencement

SUMMER QUARTER 1974

June 10	Registration
June 11	Instruction begins
June 14	Registration closes
July 4	Legal Holiday Independence Day
July 5	Mid-term
August 2	End of quarter

GENERAL INFORMATION

HISTORY AND ORGANIZATION

Shawnee College was organized as a Class I community college in September of 1967, pursuant to the Illinois Public Junior College Act of 1965. Organized to serve Southern Illinois and its people, the college district covers all of Union, Pulaski, Massac, Alexander and parts of Johnson and Jackson Counties. At the time of its formation the college district population was in excess of 65,000.

The initial Board of Trustees was selected in December of 1967, and in May of 1968 Dr. Loren E. Klaus was named President. The original campus site of 113 acres was purchased February 10, 1969. Interim facilities were erected during the summer of 1969. Faculty and staff were hired and the college officially opened on September 24, 1969, with 740 students enrolled in day and night classes. Fall Quarter enrollment 1972-73 was 1060 students enrolled in day and night classes.

OBJECTIVES

The basic purpose of every educational institution is the preservation and advancement of civilization. Toward this end, Shawnee College attempts to develop in its students the ideas, the attitudes, and the spirit of inquiry which characterize the educated individual. The desired outcome of this educational process may be stated broadly as follows:

For every student with whom it has significant contact, the college should challenge his prejudices, expand his awareness of the world and its people, enhance his social competence, strengthen his sense of purpose in life, increase his appreciation of the arts, improve his earning capacity, and arouse his curiosity so that he will continue to learn, to think, and to stimulate others after he completes his formal education.

The objectives of Shawnee College are:

(1) To provide two years of collegiate education in the arts and sciences leading to an associate degree.
(2) To provide associate degree programs leading to employment in specific technologies.
(3) To provide appropriate career programs leading to a certificate of completion.
(4) To provide opportunities for intellectual growth in academic

areas and for training in specific career skills and part-time enrollment in regular programs.

(5) To initiate, to support, and to provide cultural and intellectual activities outside the curriculum for all citizens of the area.

(6) To provide an educational atmosphere through counseling, activities, and other services which will give all students a reasonable opportunity for success in college.

CAMPUS

The campus of Shawnee College is located on the Shawnee College Road just west of Illinois Route 37 and approximately seven miles east of Interstate Route 57. The site of 163 acres is located on gently rolling hills, and the campus gives evidence of being one of the most attractive colleges in the state. The campus is centrally located within the college district, being equidistant from Anna-Jonesboro, Cairo, Metropolis and Vienna.

RECOGNITION AND ACCREDITATION

Shawnee College is recognized by the Illinois Junior College Board and the Board of Higher Education of the State of Illinois. It seeks early regional accreditation through the North Central Association of Colleges and Secondary Schools. Such accreditation normally requires a three to five year period after initial acceptance of students. Shawnee College holds Recognized Candidate Status as of April, 1972. Such status indicates that the institution has given evidence of sound planning and the resources to implement these plans, and has indicated an intent to work toward accreditation.

EVENING COLLEGE

An evening college is operated for those students who are working full time during the day and would like to enroll for a part-time college program in the evening. The demand for evening classes determines the number of classes that will be offered at any one time. The college reserves the right to withdraw any evening college offering for which there is insufficient registration.

Over a period of years nearly all classes offered during the day will be offered at night. It will be possible to select course sequences which will lead to associate degrees in various curricula. In addition, Shawnee

College expects to offer course work in continuing education programs for those area residents who desire to take advantage of such programs.

SUMMER SESSION

Each summer an eight-week session is conducted for both regularly enrolled students of Shawnee College and guest students. A student may earn up to twelve quarter hours of credit during the summer session.

Classes scheduled during the summer are the same as those offered during the regular academic year except for the quantity of courses offered. The selection of classes is based upon the demand of prospective summer students. Consequently, persons interested in having certain courses should contact the college early in the spring to make their wishes known.

BOOKSTORE

A bookstore is operated by the college and carries all required textbooks and other instructional materials, equipment, and supplies. The items in the bookstore are selected and priced to accomplish the objectives of the course work and still be as economical as possible for the student.

A center for student activities is provided on the campus. Food services are available and an atmosphere for informal student gatherings exists.

LEARNING RESOURCES CENTER

Shawnee College is committed to an educational program which places at the focal point the Learning Resources Center. This structure not only contains the usual book and periodical collections of a traditional college library but also audio-visual and media materials. Students should utilize this valuable tool from the beginning of their collegiate pursuits. Proper utilization of the Learning Resources Center will be an integral part of the Seminar in College Life course.

STUDENT SERVICES AND ACTIVITIES

COUNSELING

All entering students meet with professional personnel for counseling. Through the use of test results, high school records, and personal consultation, an effort is made to counsel the student concerning a program appropriate to his skills, aptitudes, and preparation. Other more specialized examinations may be given individual students upon their request or upon the advice of a counselor.

Being a teaching institution is the concept to which Shawnee College is dedicated. Each student is assigned a faculty advisor when he

enters the college. An attempt is made to match students' academic preferences with the background of his faculty advisor. It is hoped that each student will avail himself of the opportunity to counsel with his faculty advisor frequently.

The guidance program of the college involves a one quarter hour course in Seminar in College Life. This course is mandatory for every entering freshman student carrying twelve or more quarter hours credit. The one quarter hour credit may be applied to any associate degree or certificate program at Shawnee College.

This course will meet during freshman orientation week and cover such topics as extra-curricular organizations and activities, use of the Learning Resources Center, requirements for graduation and transfer to senior institutions, general college regulations, testing, and other topics pertinent to the student's development.

CONDUCT

Shawnee College expects from its students the self-discipline necessary to acquire an education and stands ready to aid them in every way possible while exercising as little supervision as is necessary to assure a healthy and smooth functioning college climate. Students who earnestly attempt to assume the responsibilities of college membership will receive the fullest measure of guidance and encouragement. Those who are guilty of serious misconduct are subject to suspension from the college. Cheating constitutes reasonable grounds for dismissal from the course with a grade of F assigned thereto.

STUDENT ACTIVITIES

The social and extra-curricular life of Shawnee College is as extensive as the students wish to make it. Believing that the education of an individual implies a total development, it is anticipated that the initial student-oriented activities should come from the expressed needs and desires of the student body.

STUDENT SENATE

The Student Senate is chiefly responsible for the development and guidance of student activities. It is a group of seven elected and two appointed students with one faculty member who serves as advisor. Its functions are to accept and administer petitions for college club organizations, express student opinion, coordinate the activities of student

groups, assist in planning and carrying out of all college social events, present a cultural series, and in general is charged with promoting the welfare of the student body.

TESTING

Shawnee College offers each student the opportunity to examine his occupational and educational goals through various tests. Appropriate tests and inventories can be administered through the Office of the Dean of Personnel Services. Interpretation of the results will often aid the student in understanding himself and in giving him additional information for individual decision making. As a result, a student may gain in self-confidence and develop more realistic goals for himself.

FINANCIAL AIDS

Veterans' Benefits (G. I. Bill)

Shawnee College has been approved by the State of Illinois approval agency for veterans' education.

Students who have served 180 days or more in the military service after January 31, 1955, should contact the Service offices for the Illinois Veterans' Commission or the Veterans' representative to confirm the possibility of benefits under the G. I. Bill.

To be eligible each student must have a certificate of eligibility for education and training from the Veterans Administration.

War Orphans Assistance Program

The War Orphans Educational Assistance Act (Chap. 35, Title 38, U.S.C.) was amended to provide benefits available not only to sons and daughters of deceased veterans but also to sons and daughters of living veterans who have disabilities which are considered to be total and permanent in nature.

Generally, a young person (man or woman) must be between 18 and 26 years of age to attend school under the program. In certain instances, it is possible to begin school before age 18 and continue after age 26. Marriage is not a deterrent to this benefit.

The program allows up to 36 months of higher education and allows up to $220 a month for full-time students. The Veterans Administration does not furnish books.

Dependency status is allowed for the child of a veteran until age 18 or until age 23 if a program of education is continued at a Veterans Administration approved school.

Illinois State Scholarship

Monetary awards are conferred in annual amounts to a maximum of $1200 and can be applied only toward tuition and mandatory fees. The determination of a monetary award is based on the Illinois State Scholarship Commission's evaluation of the financial data submitted by the student and his parents or guardian, and on the resident or commuting budget.

To be eligible for consideration, each applicant must be named as a semi-finalist by the Illinois State Scholarship Commission as a result of performance on the ACT and his high school record.

Shawnee College Scholarship and Memorial Loan Fund

For those students who have not been able to avail themselves of other scholarships, grants, or loans, a scholarship and memorial loan fund has been established by Shawnee College. For information concerning this, contact the Office of the Dean of Student Personnel Services.

Other Illinois State Scholarship Grants

These grants are available in annual amounts to a maximum of $1200 per year and are applicable only to tuition and mandatory fees for full-time undergraduate students. Financial need must be demonstrated by the information on the required application form and is relative to the commuter or resident budget of Shawnee College. The grants are awarded on a need basis. Performance on a qualifying examination or a specific high school record are not required for eligibility in the grant program.

Illinois Guaranteed Loan Program

Either college transfer or vocational students may apply for low-cost loans. The student must be a resident of Illinois and enrolled in a full-time course of study. Monthly repayment of loans begins after the student terminates full-time study. Students should contact the Office of the Dean of Student Personnel Services for an application form and further information.

Federal Loan Program

This program makes up to $1000 per academic year available on a loan basis to undergraduate students. There is no interest charge on this loan as long as the student remains in school. An interest charge of 3 percent per annum begins at the time the student leaves school. The recipient has ten years to repay the loan following his departure from school. The person who teaches may reduce the total amount of the loan one-tenth per year, up to a maximum of 50 percent. A person must show financial need through the nationally standardized procedures of College Scholarship Service or American College Test Service. Students should complete the Parents' Confidential Statement published by the College Scholarship Service.

Vocational Rehabilitation Grants

The State of Illinois Division of Vocational Rehabilitation may provide funds for board, room, transportation, and other necessary expenses for a person who is found to be disabled. The applicant must have a disability which prevents his getting a suitable job, or threatens his continued employment. The applicant must have a "reasonable" chance of being able to work in suitable employment after training is provided. Students who have a medical or physical disability should contact an office of Vocational Rehabilitation or the office of the Dean of Student Personnel Services for further information.

ADMISSIONS

Shawnee College offers admission opportunities to all students qualified to complete any one of its programs, as long as space for effective instruction is available. Programs offered include General Education, Transfer, Occupational, and Continuing Education. Preference in admissions will be given to those students whose legal residence is within the Shawnee College district.

ADMISSION REQUIREMENTS

(1) Graduates of a senior high school recognized by the Office of the Superintendent of Public Instruction for the State of Illinois will be granted regular admission if they present transcripts showing a minimum of fifteen units of acceptable secondary work exclusive of physical education.

(2) Graduates of non-recognized senior high schools will be granted provisional admission. If the quality of work accomplished in the first quarter indicates that the student will profit by continuance, the provisional admission will be changed to regular status. All work satisfactorily completed by a student under provisional admission status will be credited toward certificate or degree programs.

(3) Transfer students who have been enrolled in one or more institutions of higher education will be admitted providing: (a) official transcripts from each institution (including senior high school) are submitted, (b) the student is released in good academic standing from the last institution attended, (c) the student has not been suspended for disciplinary reasons. If the student is not released in good standing from the last institution attended, his eligibility for admission must be reviewed by the Dean of Student Personnel Services.

(4) Persons who have not graduated from a senior high school, but who are of post high school age may be admitted on the basis of satisfactory scores on the General Education Development test.

(5) Students who do not seek credit from Shawnee College, but who wish to audit courses offered by this institution will be granted special admission. Audit students pay all fees normally associated with course work carried but do not participate in examinations nor are grades issued.

(6) Students from foreign countries may be admitted under certain conditions. Applications, credentials and scholastic records must be submitted well in advance of the proposed date of admission. Confirmation and interpretation of all records by the U.S. Office of Education must be obtained by the college before formal admission can be finalized. Each student is expected to have a good command of the English language. Inasmuch as the college maintains no housing, arrangements must be made by each student.

(7) High school students who have completed the sixth semester of high school credit and have written permission from the high school superintendent may be admitted into the escrow program.

ACT SCORES

Each applicant should have an official copy of his American College Test (ACT) scores on file with the Dean of Student Services. Shawnee College is a National testing center for ACT and students may take their tests on campus on the designated testing dates. Otherwise, test scores are to be requested from the American College Test, Box 168, Iowa City, Iowa 52240. If scores from the American College Test Service are requested, the Shawnee College identification number, 1173, should be given.

REGISTRATION

Applicants who are accepted will be asked to report to the college during the summer for testing and academic counseling. At that time they will be given guidance in planning their programs of study and arranging their class schedules. Final registration will take place during orientation week. Students registering after that date will be required to pay a late registration fee. Ordinarily no student will be admitted to a curriculum before he has been tested. Counseling and pre-registration for the winter and spring terms and the summer session will take place during the final weeks of the previous term.

RESIDENCE

Should the number of admission requests exceed the space available, students living within the junior college district will be given first preference. Students living outside the district will be accepted in the order in which applications are filed. If space is not available for all resident students applying, the college will accept those best qualified

using rank in class, ability and achievement tests, and other evidence as required by the college.

TUITION AND FEES

The State of Illinois Public Junior College Act of 1965 established that each public junior college charge the same tuition to students residing outside the junior college district within the state as to those residing within the district. The amount of tuition charged may not exceed 1/3 the per capita cost of operation. The junior college district is also authorized to charge out-of-state students the full per capita costs.

Resident Tuition (Residents of Shawnee College District 531)

Per Quarter Hour.....$3.25

The official refund policy for Shawnee College is:

Refund of tuition up to and including the tenth (10th) day of instruction is based on the pro-rated portion of the quarter in attendance.

There is no refund of activity fee after the first day of instruction.

Charge-Back Tuition (Residents of Illinois outside Shawnee College District)

A student who resides in a high school district, not located within a junior college district, may have partial costs paid by his high school district if he notifies that district before July 1 that he plans to attend a junior college the following year.

A student who resides in a junior college district which has not begun operation may have partial costs paid by his junior college district if he notifies that district of his intent to attend a junior college the following year.

A student who resides in a junior college district with an operational junior college may have partial costs paid by his junior college district if he enrolls in a program which his local junior

college does not offer. In all other cases students from these districts must pay their own costs.

Non-Resident Special Charges

Non-resident out-of-state students will pay special charges determined by per capita costs.

Activity Fees

Per quarter hour.....$.50

These fees are applicable to all students and cover library, laboratory, student center, college newspaper, extra-curricular activities, and other services connected with college attendance.

Other Fees (Non-Refundable)

Late registration fee	$ 2.00
Graduation fee	10.00
Laboratory fee (per quarter hour)	.50

CHANGE OF SCHEDULE

Any change of schedule after registration has been completed shall be processed through the Office of the Director of Guidance and Counseling.

WITHDRAWAL FROM THE COLLEGE

To officially withdraw from Shawnee College, a student must make proper application at the Office of the Director of Guidance and Counseling. An orderly withdrawal procedure assures the student that there would be no procedural problems which would prevent his entering another institution or re-entering Shawnee College.

ACADEMIC REGULATIONS

The progress of students at the college is indicated by the grades received in each course of study. The following grading system is used:

GRADE	GRADE POINTS
A — Excellent	4
B — Good	3
C — Average	2
D — Passing	1
F — Failing	0
I — Incomplete	0
W — Withdrawal	0

A grade of W will be given for any withdrawal within the first ten (10) weeks of a regular quarter. After ten (10) weeks an F will be given in all classes except in cases where extenuating circumstances prevail. In such cases and upon the recommendation of the appropriate dean, a W may be given to the student.

The grade point average (G.P.A.) is computed by multiplying the grade points earned in a course by the number of credit hours for the course, adding these products for each course, and dividing by the total number of credit hours. The grade points with an F will be computed in the G.P.A. unless the course is later repeated with a satisfactory grade. Neither credit hours nor grade points will be computed in those courses where a grade of I or W is assigned. A student's standing in a curriculum is determined by his cumulative G.P.A.

A student who does unsatisfactory work will be given academic warning for that quarter. If work is unsatisfactory for the following quarter the student will be placed on probation. At this point the student may choose to change his curriculum or continue in his current program, but in either case he must improve his standing satisfactorily or be dropped from school for one academic quarter. A student may attend a summer session to raise his G.P.A. to a satisfactory level. The minimum satisfactory average is 2.0.

ATTENDANCE

Attendance at all classes for which a student is registered is expected. Excessive absences may lead to a student being denied the right to take the final examination and consequently to a grade of F in the course.

PREPARATION OUTSIDE OF CLASS

Each lecture hour of a college class normally requires at least two hours of study outside of class. Students who attend college and also engage in outside employment should consider the following:

If you work (employment hours)	and enroll in (lecture hours)	it will require (outside study hours)	your total workload is (hours of work required)
40	3	6	49
30	6	12	48
20	9	18	47
10	12	24	46
0	15	30	45

SCHOLASTIC RECORDS AND STANDARDS

Class records of students are kept by each instructor and are available to the student upon request. A grade report is mailed for each student at the completion of each term.

Complete permanent records are maintained by the registrar and official transcripts are available at any time upon request. Each student is entitled to free transcripts.

TRANSFER OF CREDITS

Colleges and universities reserve the right to reject in certain cases credits for courses in which the grade of D was received. Also, they can accept or reject a student for admission based upon the student's academic accomplishment at Shawnee College.

If the student should change his curriculum in the process of transferring from Shawnee College to another college or university, credits for certain courses might be non-applicable toward requirements in the new curriculum.

If a student continues the same transfer curriculum started at Shawnee College and has maintained a grade of C or better for all courses taken, it is anticipated that all credits will be accepted in transfer. While there is a question of applicability of particular courses for bachelor degree requirements, it is the responsibility of the student to check with his academic advisor or the Director of Guidance and Counseling.

CLASSIFICATION OF STUDENTS

Students with fewer than 45 quarter hours of acceptable credit are classified as freshmen; those with 45 or more quarter hours of acceptable credit are classified as sophomores.

STUDENT ACADEMIC LOAD

It is assumed that the usual academic load for full-time students in this institution will be 14-16 quarter hours of credit. The total credit hours for any student cannot exceed 18 in any one term nor 12 in any one summer session without written permission from the appropriate Dean.

PRESIDENT'S HONOR LIST

At the completion of each quarter, the President's office will publish a President's Honor List of academic achievement. Any full-time student who has a 4.0 average for that quarter will receive this honor.

DEANS' LIST

At the completion of each quarter, the Deans will publish a Deans' Honor List of academic achievement. Any full-time student who has a 3.20 grade point average for that quarter will be placed on this list.

GRADUATION WITH HONORS

If a student has completed associate degree requirements with a cumulative index of 3.50 or higher, the degree shall be awarded with honors.

COLLEGE ENROLLMENT BY HIGH SCHOOL STUDENTS

Early admission may be granted in advance of high school graduation if the student is 16 years of age or older. This credit is contingent on the successful completion of the high school course of study. In no event shall these credits be counted toward high school graduation. Permission for such enrollment must be in writing from the high school superintendent.

PROGRAMS OF STUDY

Several programs of study are available at Shawnee College leading to the degrees of Associate of Arts, Associate of Science, Associate of

Applied Science, and Associate of General Studies; other programs have one or more of the following purposes:

(1) For preparation to enter an occupation.
(2) For general education and cultural development.
(3) General studies for development and preparatory work.

A student planning to transfer to a four year college or university usually can complete the requirements of the first two years of his work at Shawnee College and after two years of further study in the institution to which he transfers graduate with a baccalaureate degree. The student is urged to make a decision regarding transfer plans and to consult with his counselor in order to arrange a program of courses which will satisfy the requirements of the institution of his choice.

REQUIREMENTS FOR GRADUATION

The specific requirements for graduation with an Associate Degree (other than Associate of General Studies) are:

(1) Successful completion of at least 96 quarter hours of college credit, at least 45 quarter hours of which must be earned at Shawnee College.
(2) Enrollment at Shawnee College for the last 15 quarter hours preceding graduation.
(3) Satisfactory performance and completion of course requirements for the curriculum chosen by the student as outlined.
(4) A satisfactory grade on the examination covering the constitutions of the State of Illinois and of the United States as required by Senate Bill 95 (the examination is given in American Government 117 which is a required course for all degree candidates).
(5) A cumulative grade point average for all work taken at Shawnee College of 2.00 or higher.
(6) Successful completion of the course, Seminar in College Life, a one quarter hour program designed to orient the student to the educational opportunities and facilities of the college.

A candidate for an Associate of Arts Degree from Shawnee College must meet the following requirements:

(1) Successful completion of twelve quarter hours of college credit in each of the four basic divisions:
    (a) Language Communications

1) Includes 9 required quarter hours of English Composition 111, 112, 113.
2) Excludes foreign language

(b) Science and Mathematics

(c) Social Science
1) Includes 4 required quarter hours of American Government 117

(d) Humanities

(2) Successful completion of twelve quarter hours of college credit in a sequence in foreign language. A student who has two or more years of high school foreign language may enroll in the second year of foreign language if he obtains departmental permission.

A candidate for an Associate of Science Degree from Shawnee College must meet the following requirements:

(1) Successful completion of twelve quarter hours of college credit in each of the three basic divisions:
(a) Language Communications
1) Includes 9 required quarter hours of English Composition 111, 112, 113
2) Excludes foreign language

(b) Humanities

(c) Social Science
1) Includes 4 required quarter hours of American Government 117

(2) Successful completion of a minimum of 24 quarter hours of college credit in the areas of Science and/or Mathematics.

In the above Associate Degree programs, Literature courses may apply to either the Humanities or Language Communications divisions, but may not apply to both. Western Civilization courses may apply to either Humanities or Social Science divisions, but not to both.

The minimum requirements for an Associate in Applied Science Degree are 96 quarter hours distributed as follows:

GROUP I — General Education Courses (26 quarter hours)
Communications 104, 105, 106 or 111, 112, 113 9
Health 111.....3
Introduction to American Government 117.....4

Practical Psychology 4
Elective 5
Seminar in College Life 1

GROUP II — Specialty Courses (45 quarter hours)
Specialty courses are defined as those units of instruction directly related to the occupational training selected by the student. Individual course selections will be made in consultation with a faculty advisor.

GROUP III — Related Supportive Courses (25 quarter hours)
Related supportive courses are defined as those units of instruction not specifically in the chosen occupational area but which are related to the vocational goal of the student.

GENERAL STUDIES CURRICULUM

Objectives

The following are assumed to be reasonable objectives for students entering the General Studies Curriculum:

(1) To provide for those students who do not have adequate background to pursue either transfer or occupational curricula.
(2) To provide instruction which will make it possible for such students to achieve success.
(3) To provide a second chance for those students who fail to achieve success in other curricula.
(4) To provide an opportunity for self-development and a sense of self-value.

GRADUATION REQUIREMENTS

Recommendation for the Associate of General Studies Degree will be granted to the student who has:

(1) Earned 96 quarter hours of college credit and at least 45 quarter hours of the above 96 hours must be earned at Shawnee College.
(2) Maintained a cumulative grade point average of 2.00 for all courses presented for graduation.
(3) Been enrolled at Shawnee College during the quarter immediately prior to graduation.

GENERAL STUDIES PROGRAM

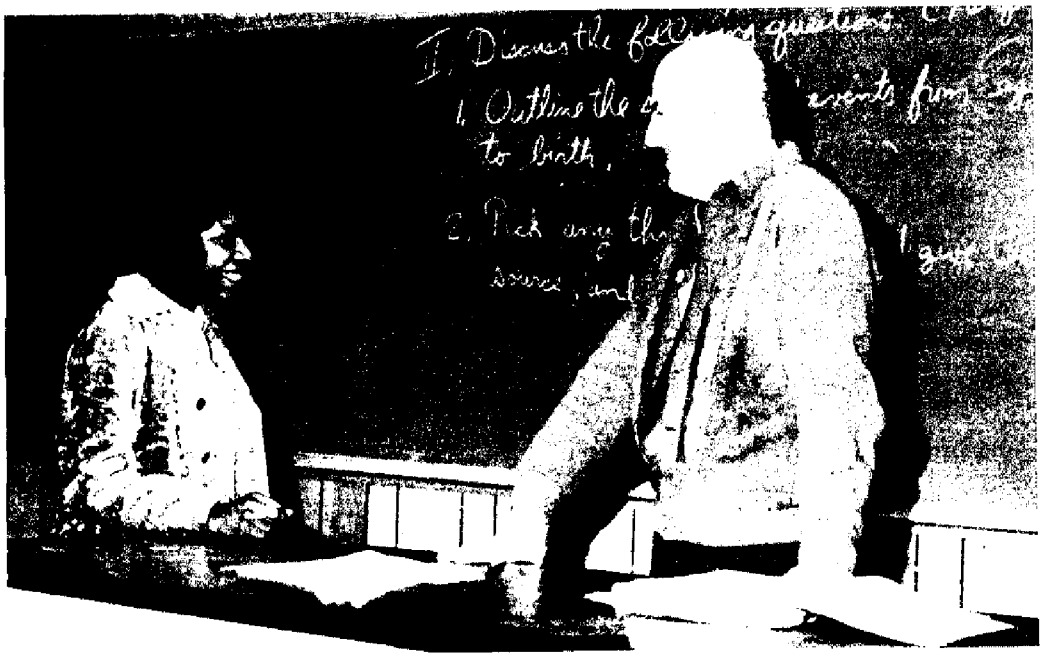
Shawnee College has established a program for students whose high school achievement and test scores are below the minimum for admission to other college curricula. This program is designed to give the student every opportunity to develop his abilities, to remove deficiencies, and to qualify for the curriculum of his choice. The program is designed and supervised by the student's faculty advisor within guidelines established by the college. This general studies program is not to be confused with a general studies or general education program at a four-year institution.

CONTINUING EDUCATION

Shawnee College offers a balanced program and opportunity in continuing education for those adults within the community college district who wish to pursue one or more courses. Courses within this structure are intended to be both recreational and vocational in nature.

The continuing education program at Shawnee College is considered as an extension of existing programs rather than a separate division of the college.

Fees charged for each unit of study within the continuing education program will vary; however, the college will make every attempt to keep costs minimal.



OCCUPATIONAL PROGRAMS

ACCOUNTING AIDE

This is a two-year curriculum leading to an Associate of Applied Science degree and is designed to prepare the student for employment as an accountant capable of operating common office adding machines and calculators. The student should have a basic knowledge of accounting as it pertains to sales and purchasing, commissions, piecework, payrolls, discounts, insurance, and tax computations.

1st Year

FALL
Accounting 111 4
English 104 or 111 3
Bus. Machines 125 3
Bus. Math 115 4
Seminar in Coll. Life 101 1
15

WINTER
Accounting 112 4
English 105 or 112 3
Bus. Law 214 3
Prin. of Marketing 126 4
Prac. Psy. 221 4
18

SPRING
Accounting 113 4
Bus. English 117 4
Bus. Law 215 3
Elective 4
15

2nd Year

FALL
Accounting 211 4
Intro. to Bus. D.P. 130 3
Elective Math 4
Health 111 3
Electives 4
18

WINTER
Accounting 212 4
Cost Accounting 222 3
Government 117 4
Elective General Ed 4
15

SPRING
Accounting 213 4
Auditing 221 3
Internship 230 3-5
Internship Seminar 231 1
Intro. to Management 128 4
15-17

SUGGESTED ELECTIVES

Bus. Finance & Credit 220
Bus. Org. 119
Math 112
Economics 211, 212

AGRICULTURE PRODUCTION

A two-year curriculum leading to an Associate of Applied Science degree designed to improve in depth the student's ability and knowledge to manage a farm producing livestock and/or corps.

1st Year

FALL
English 104 or 111 3
Agr. Occupations 120 2
Agr. Math 125 4
Seminar in College Life 1
Agr. Bio.-Chem. 121 4
14

WINTER
English 105 or 112 3
Animal Nut. 122 4
Soil Sci. 123 4
Agr. Econ. 126 4
15

SPRING
English 106 or 113 3
Soil Sci. 124 4
Speech 111 4
Health 111 3
14

SUMMER
Occup. Experience 240 5
Occup. Experience Sem. 241 1
6

2nd Year

FALL
Government 117 4
Prac. Psychology 221 4
Fruit Prod. Sci. 221 4
Animal Sci. 223 4
16

WINTER
Agr. Mech. 224 4
Agr. Chem 227 4
Agr. Mgmt. 130 4
Elective 4
16

SPRING
Grain Prod. 222 4
Agr. Sem. 231 1
Agr. Intern. 230 5
Elective 5
15

AGRICULTURAL RESOURCES

A two-year curriculum designed to prepare the student for employment in a variety of jobs concerned with conservation and effective use of agricultural resources. The Associate of Applied Science degree will be awarded upon gaining a basic knowledge in the areas of soil conservation, wildlife conservation, introductory forest usage, and related occupational areas.

1st Year

FALL
English 104 or 111 3
Agr. Occ. 120 2
Agr. Bio-Chem 121 4
Agr. Math. 125 4
Seminar in College Life 101 1
14

WINTER
English 105 or 112 3
Soil Sci. 123 4
Con. of Nat. Res. 127 4
Agr. Econ. 126 4
15

2nd Year

FALL
Intro. to Forestry 229 4
Practical Psy. 221 4
Wildlife Mgt. 226 4
Elective 4
16

WINTER
Woodland Mgt. 225 4
Gov. 117 4
Agr. Chem. 227 4
Health 111 3
15

SPRING
English 106 or 113 3
Soil Sci. 124 4
Con. of Water Res. 128 4
Surveying 129 4
15

SUMMER
Res. Occupational Experience 240 5
Agr. Res. Occ. Seminar 241 1
6

SPRING
Plant Propagation 228 4
Agr. Seminar 231 1
Agr. Internship 230 5
Elective 5
16-18

OUTDOOR RECREATION AND PARK MANAGEMENT OPTION

Botany 213 4
Outdoor Recreation and Park Mgmt. 243 4
Nature Interpretation 244 5
13

AGRICULTURE SUPPLY AND SERVICE

This program leads to an Associate of Applied Science degree and prepares the student to provide the farmer with goods and services. The types of jobs include salesmen in feeds, seeds, fertilizers, machinery, warehouse managers and employees, and self-employed dealers in agricultural supplies.

1st Year

FALL
English 104 or 111 3
Agr. Occ. 120 2
Bus. Organization 119 4
Accounting 111 4
Seminar in College Life 1
14

WINTER
English 105 or 112 3
Agr. Econ. 126 4
Soil Science 123 4
Products, Sales & Service 131 4
15

2nd Year

FALL
Government 117 4
Bus. Math 115 4
Intro. to Bus. D.P. 130 3
Crop, Lawn & Garden Sales & Service 232 4
15

WINTER
Agr. Chemicals 227 4
Prin. of Sales 228 4
Typing 121* 4
Bus. Law 214 3
15

SPRING
Bus. English 117 4
Bus. Finance & Credit 220 4
Practical Psy. 221 4
Speech 111 4
16

SUMMER
Supervised Work Experience 240 (40 hour week) 5
Seminar 241 1
6

SPRING
Agr. Internship 230 5
Agr. Seminar 231 1
Agr. Management & Inventory Control 233 3
Elective 3
Business Law 215 3
Health 111 3
18

*If a student has had typing previously, he must substitute this with an elective.

COMMUNITY SERVICE ASSISTANT

This curriculum is designed to prepare students for employment in agencies which provide social services to the community. Upon completion of the program, which leads to the Associate of Applied Science Degree, the graduate is prepared for employment as an assistant in welfare agencies, municipal recreation programs, social development projects, church-sponsored youth programs, and other private or public enterprises of human welfare nature.

1st Year

FALL
English 104 or 111 3
Bio. 111 4
Typing 121 4
Sociology 212 4
Seminar in Coll. Life 101 1
16

WINTER
English 105 or 112 3
Bio. 112 4
Prac. Psy. 221 4
Intro. to Social Work 121 4
15

SPRING
English 106 or 113 3
Bio. 113 4
Health 111 3
Social Problems 122 4
Elective "General Education" 3
17

2nd Year

FALL
Marriage & Family 227 4
Intro. to Group Proc. 221 4
Prin. of Rec. 223 4
Human Growth & Develop. 228 4
16

WINTER
Abnormal Psy. 229 4
Adv. Group Proc. 222 4
Practicum 225 5
Seminar 225A 1
14

SPRING
Speech 111 4
Intro to Serv. Agencies 224 4
Government 117 4
Practicum 226 5
Seminar 226A 1
18

*Specialty courses will be offered mostly at night.

MID-MANAGEMENT

This curriculum is designed to prepare the student for employment to function as a liaison between employees and top level management. The Associate of Applied Science degree will be awarded upon successful completion of the curriculum.

1st Year

FALL
English 104 or 111 3
Prac. Psychology 221 4
Bus. Organization 119 4
Health 111 3
Seminar in Coll. Life 101 1
15

SPRING
Business English 117 4
Prin. of Marketing 127 4
Business Math 115 4
Business Law 215 3
15

WINTER
English 104 or 112 3
Government 117 4
Prin. of Marketing 126 4
Business Law 214 3
Elective 4
18

2nd Year

FALL
Accounting 111 4
Prin. of Adver. 227 4
Intro. to Bus. Data Proc. 130 3
Internship 230 3-5
Office Seminar 231 1
15-17

SPRING
Intro. to Management 128 4
Electives 9
Internship 230 3-5
Office Seminar 231 1
17-19

WINTER
Accounting 112 4
Prin. of Sales 228 4
Internship 230 3-5
Office Seminar 231 1
Elective 4
16-18

SUGGESTED ELECTIVES

Bus. Finance & Credits 220
Economic Geography 215
Accounting 113
Speech 111
American Economic History 214

SECRETARIAL SCIENCE

A two-year curriculum designed to prepare the student for employment as a secretary capable of taking dictation, transcribing, typing, handling appointments, screening office visitors, reading and writing routine office correspondence. The Associate of Applied Science degree will be awarded upon successful completion of the curriculum. Placement tests for shorthand and typing classes are given to all students who have had previous instruction in one or both of these areas. The purpose of the tests is to determine at what point in the sequence the student should begin. Students must take elective courses equal to the number of credit hours of courses waived.

1st Year

FALL
Shorthand 123 4
English 104 or 111 3
Bus. Organization 119 4
Typing 121 4
Seminar in College Life 101 1
16

WINTER
English 105 or 112 3
Typing 122 4
Shorthand 124 4
Government 117 4
15

SPRING
Business English 117 4
Business Math 115 4
Shorthand 127 4
Typing 126 4
16

2nd Year

FALL
Shorthand & Trans. 224 4
Accounting 111 4
Business Machines 125 3
Intro. to Bus. Data Proc. 130 3
Typing & Trans. 223 4
18

WINTER
Sec. Proced. 226 4
Business Law 214 3
Shorthand & Trans. 225 4
Health 111 3
Practical Psychology 221 4
18

SPRING
Business Law 215 3
Office Internship 230 3-5
Seminar 231 1
Indexing & Filing 120 4
Legal & Medical Dictation 227 4
15-17

CERTIFICATE PROGRAMS

ARCHITECTURAL DRAFTING

This program is designed to prepare students for employment as draftsmen working primarily in the construction industries. A basic knowledge in construction practices, materials and methods, and drafting techniques allow the student to receive a certificate of completion at the end of one year.

FALL
Fundamentals of Drafting 120 4
Materials and Methods of Const. 124 4
Technical Math 121 4
Blueprint Reading 131 4
Seminar in College Life 1
17

WINTER
Machine Design 133 4
Materials and Methods of Const. 125 4
Architectural Drafting 121 4
Technical Math 122 4
16

SPRING
Engineering Graphics 127 4
Architectural Drafting 126 4
Surveying 129 4
Technical Math 123 4
16

AUTOMOTIVE MECHANICS

This program provides the student with the necessary knowledge and skills in the general areas of automotive engine repair and services.

FALL Credit
Steering Systems 110 2
Multi-Cylinder Engines 111 3
Engine Servicing 112 3
Shop Orientation and Safety Procedures 115 2
Automotive Blueprint Reading 126 3
13

WINTER
Electrical Systems (AC & DC) 116 3
Automotive Power Trains 113 3
Brakes, Wheel Alignment, Balance & Suspension Systems 117 3
Auto Heating and Air Conditioning Systems 114 3
12

SPRING
Auto Service and Management 108 3
Diesel 124 3
Fuel & Fuel Systems 119 3
Manual & Automatic Transmissions 123 3
Practicum 127 4
16

CLERK-TYPIST

The purpose of this program is to provide students with an intensive training plan of relatively brief duration, which equips them with the skills necessary for gainful employment in the general clerical area of business and industry. Normally three academic quarters are required for completion of this program.

FALL
English 104 or 111 3
Business English 117 4
Indexing and Filing 120 4
Typing 121 4
Seminar in Coll. Life 101 1
16

WINTER
English 105 or 112 3
Business Math 115 4
Typing 122 4
Office Practice 129 4
15

SPRING
English 106 or 113 3
Typing & Trans. 223 4
Business Machines 125 3
Office Internship 230 3-5
Seminar 231 1
14-16

SUGGESTED ELECTIVES
Speech 111
Bus. Org. 119

DATA PROCESSING — UNIT RECORD KEY PUNCH OPERATOR

An introductory one-year program designed to prepare students for employment as key punch operators, machine room operators and board wirers for business data processing.

FALL
Intro. to Data Proc. 121 3
*Typing 121 4
Indexing and Filing 120 4
Seminar in Coll. Life 101 1
Business English 117 4
16

WINTER
Intro. to Data Proc. 122 3
Typing for Data Proc. 124 1
Accounting for Data Proc. 125 4
Key Punching 127 4
*Elective 4
16

SPRING
Accounting for Data Proc. 126 4
Board Wiring 128 4
Intro. to Peripheral Machines 129 4
Business Math 115 4
16

SUGGESTED ELECTIVES
*Elective may be substituted if typing is proficiencied.
1. Bus. Machines 125
2. Accounting 111
3. Accounting 112

FARM EQUIPMENT MECHANIC

This program will provide the student with the necessary knowledge and skills required for employment in the repair of farm equipment.

FALL	Credit
Planting and Tillage Equipment 111	3
Basic Welding 123	3
Agricultural Chemical Equipment 112	3
Farm Power I (Gas Engines) 115	3
	12

WINTER	
Electrical Systems 121	3
Hydraulics I (Basic) 117	3
Transmissions and Final Drives 122	3
Harvesting Equipment 119	3
	12

SPRING	
Principles of Farm Mechanization 120	3
Farm Power II (Diesels) 116	4
Power Unit Testing & Diagnosis 124	3
Hydraulics II (Equipment Applications) 118	3
	13

FOOD SERVICE

This program will provide the student with the necessary knowledge and skills sufficient for entry into one or more of the food service occupations such as chef, baker, and meat cutter.

FALL	Credit
Food Services, Sanitation and Safety 111	4
Nutrition 127	3
Introduction to Food Services 110	4
Introduction to Food Preparation 112	4
	15

WINTER	
Cooking Technology 123	3
Introduction to Meat Cutting 113	2
Introduction to Baking 114	2
Food Plant Equipment 116	3
Fish, Eggs, and Poultry Cookery 117	4
	14

SPRING	
Meat Processing and Cutting 124	3
Baking Laboratory 125	3
Quality Control 126	3
Food Services Internship 130	4
	13

INDUSTRIAL ELECTRONICS

This program should provide the student with the necessary knowledge and skills required in radio, television, and other communication device servicing.

FALL	Credit
Basic Electricity I (DC theory) 121	3
Technical Math 121	4
Resistive Circuits 125	3
Drafting for Electronics 140	3
	13

WINTER	
*Basic Electricity II (AC theory) 122	3
Electronic Devices 124	3
Motors and Generators 130	3
Basic Electronic Theory 123	3
	12

SPRING	
Electronic Testing Devices 127	3
Basic Audio Circuits 131	3
Basic Video Circuits 132	3
Electronic Circuit Analysis 128	3
Electronic Circuit Design 129	3
	15

MACHINE TOOL OPERATION

This program should provide the student with the necessary knowledge and skills to operate various machine tools such as turret lathes, milling machines, and drilling equipment.

FALL	Credit
Industrial Shop Fundamentals 115	4
Drafting 120	4
Machine Tool Fundamentals 121	4
Elementary Mechanics & Materials 120	4
	16

SPRING	
Lathe Operations 118	4
Milling Machine Operations 119	3
Machine Design 132	3
Machine Shop 125	3
	13

WINTER	
Blueprint Reading 131	4
Machine Tool Operations 122	4
Metallurgy & Heat Treatment 123	3
Manufacturing Process Fundamentals 124	3
	14

MECHANICAL DRAFTING

The purpose of this program is to prepare skilled technicians for any employment by providing the drafting skill and technical knowledge necessary to meet industrial drafting opportunities.

FALL — Credit
Fundamentals of Drafting 120 4
Blueprint Reading 131 4
Metallurgy and Heat Treatment 123 3
Slide Rule 113 1
Technical Math 121 4
16

WINTER
Tool Design 132 3
Machine Design 133 3
Architectural Drafting 121 4
Mechanisms 134 3
13

SPRING
Advanced Mechanical Drafting 135 3
Advanced Architectural Drafting 122 4
Elect. Hydraulic Pneumatic Controls 136 3
Specifications (Mechanical plus Architectural) 137 3
13

OFFICE MACHINE REPAIR

This program will provide the necessary skills for the repair and maintenance of various office machines such as adding machines, accounting machines, calculating machines, typewriters, and other office machines.

FALL — Credit
Introduction to Office Machines 120 4
Typewriter Repair I (Manual) 121 3
Adding Machine Repair (Manual) 124 4
Consumer Relations 130 3
14

WINTER
Introduction to Electric Office Machines 129 3
Electric Adding Machine Repair 125 4
Basic Calculators 126 3
Schematic Design 131 2
12

SPRING
Introduction to Duplicating Machines 127 3
Typewriter Repair II (Electric) 122 4
Office Machine Sales and Service 128 3
Practicum 132 4
14

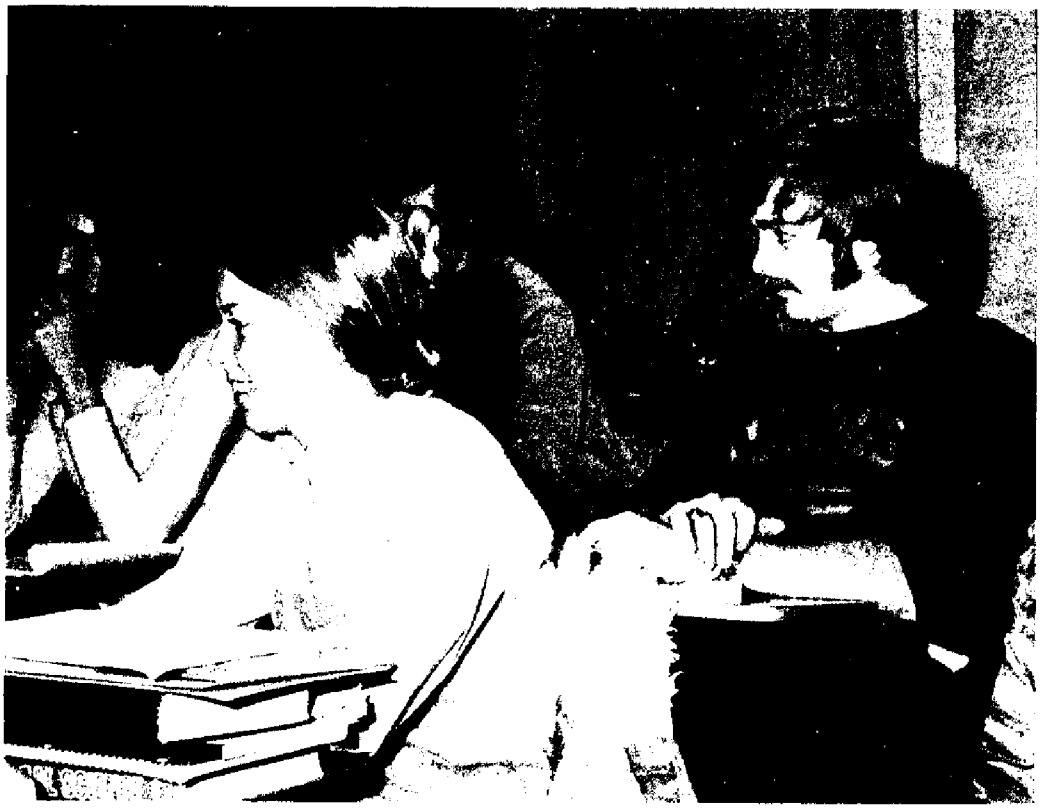
ORNAMENTAL HORTICULTURE

This program should provide the student with the necessary knowledge and skills in the general area of ornamental horticulture such as golf course greens keeper, floriculture nursery operator and landscape planner.

FALL	Credit
Intro. to Horticulture Plants 111	3
Blueprint Reading 131	4
Soil Science 123	4
Floriculture 112	3
	14

WINTER	
Landscape Layout & Design 113	3
Soil Science 124	4
Turfgrass Culture 125	3
Nursery Operations 127	3
	13

SPRING	
Insecticides & Herbicides 128	3
Greenhouse Management 130	3
Horticulture Business Management 131	3
Drainage & Irrigation 132	2
Mechanics 124	3
	14



PRACTICAL NURSING

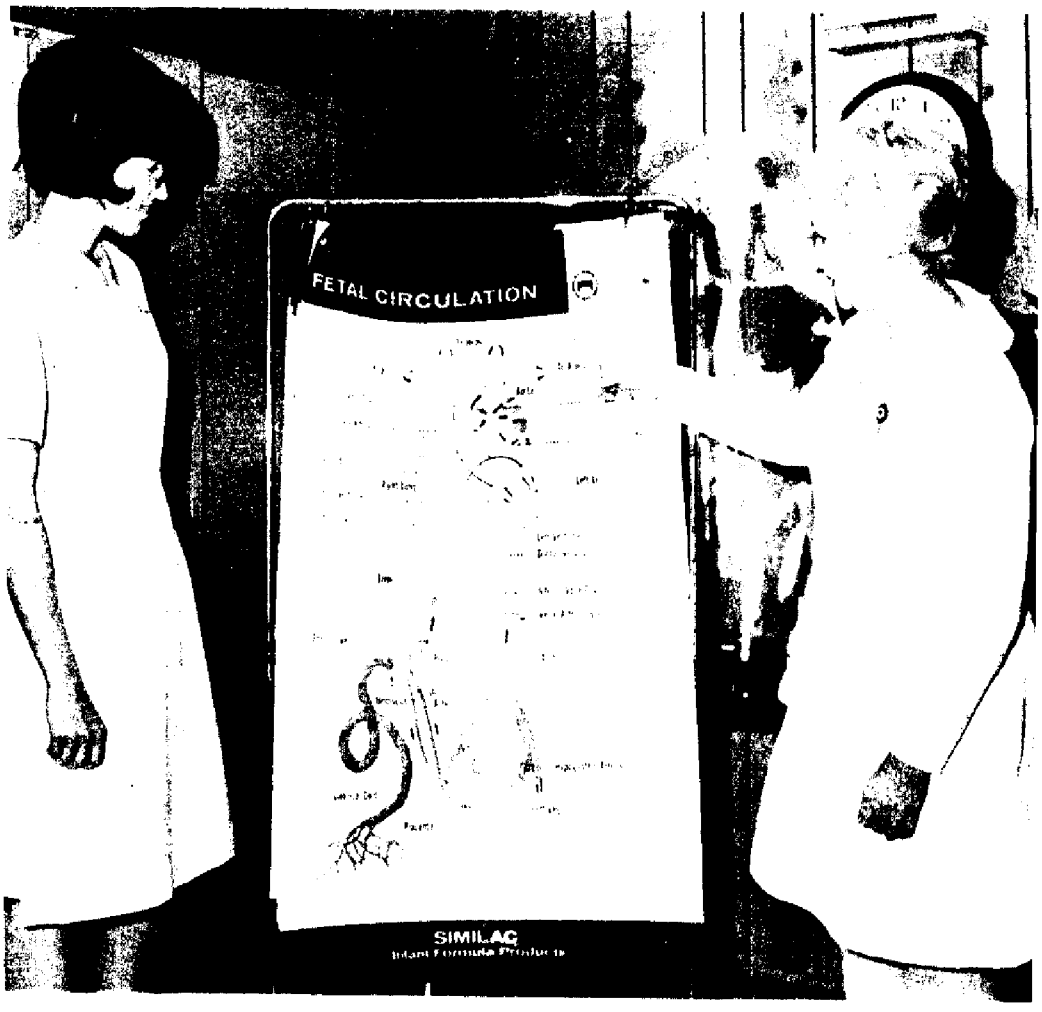
This curriculum is designed to prepare students for entry into the nursing profession upon completion of one year of training. The student should develop a relatively high degree of expertise in the following:

(1) Nursing the patient whose health has been affected by the aging process.

(2) Total nursing care for the adult whose nursing needs are relatively stable.

(3) Caring for the adult whose health has been impaired by nutritional deficiencies.

(4) Caring for the mother and new-born infant with emphasis on the nutritional needs.



(5) Caring for the infant and child whose nursing needs are relatively stable.

(6) Nursing the patient who requires care due to mental deficiencies or illness. This care should assist the patient in performing those activities of daily living.

Clinical experience will be conducted in area hospitals, nursing homes, and kindergartens (day care centers).

Students will pay for their uniforms, books, transportation, insurance, and other necessary expenses.

Plans for enrollment should be made early since all admission requirements must be met before admission to the program. Entrance requirements include a personal interview, satisfactory completion of pre-testing, and good health as determined by a physical and dental examination.

AREA 1—12 WEEKS Introduction to Practical Nursing

Introduction to Basic Nutrition 120	1
Basic Nursing Skills 121	6
Body Structure & Functions 123	5
Communications 124	1
Personal & Vocational Relationships 126	1
Nursing Care of Geriatric Patient 129	3
Seminar in College Life 101 (College Orientation)	1
	18

AREA II—12 WEEKS Introduction to Medical-Surgical Nursing

Nursing Skills 122	6
Personal & Community Health 125	1
Introduction to Mental Health 127	3
Introduction to Pharmacology 128	2
Introduction to Medical-Surgical Nursing 130	4
	16

AREA III—12 WEEKS Nursing Care of the Adult Patient

Medical-Surgical Nursing 131	12
Pharmacology 134	2
Nursing Skills 136	1
Diet Therapy 137	1
	16

AREA IV—12 WEEKS Nursing Care of the Mother and Child

Nursing Care of the Mother and Newborn 132	7
Nursing Care of the Child 133	6
Pharmacology 135	2
Personal & Vocational Relationship 138	1
	16

TEACHER'S AIDE CERTIFICATE PROGRAM

The following courses may be completed in approximately one year. Upon completion, the student will be eligible to receive a certificate of proficiency. The curriculum consists of approximately fifty (50) credit hours.

FALL QUARTER	Credit
English 104 or 111	3
Practical Psychology 221	4
Introduction to Education 121	4
Human Growth and Development 218	4
School Forms 126	1
Public Relations 128	1
	17

SPRING QUARTER	
First Aid 125	2
Community Resources 127	1
American Public Education 129	3
Arts and Crafts 221	4
School Music 222	4
Math 111	4
	18

WINTER QUARTER	
Office Practices 129	4
Audiovisual and Library 122	4
Children's Literature 123	4
Recreation 124	4
	16

WATER and/or WASTEWATER TECHNOLOGY

This program will provide the student with the required knowledge and skills appropriate for employment in the area of water and/or wastewater technology. It will prepare the student for possible employment in water plants, sewage treatment plants, or other related areas of water and/or wastewater technology.

FALL	Credit
Introduction to Water/Wastewater Technology and Related Fields 121	3
Technical Mathematics 121	4
Mechanics 124	3
Physical Science 111	4
	14

SPRING	
Health & Sanitation 130	2
Mechanics 132	3
Water Treatment Technology II 128	4
Coding & Planning 131	2
Water & Sewage Purification 129	3
	14

WINTER	
Drafting 120	4
Wastewater Technology 125	3
Sewage Treatment 126	3
Water Treatment Technology 127	3
	13

WELDING

This program will provide the student with the necessary knowledge and skills appropriate for employment in the areas of electric and oxyacetylene welding. Students completing this program should have sufficient preparation to become certified welders.

FALL	Credit
Blueprint Reading 131	4
Introduction to Gas Welding 120	3
Brazing; Soldering & Cutting Processes 121	3
Basic Arc Welding 123	3
	13

WINTER	
Advanced Arc Welding 124	3
MIG plus TIG Welding 125	3
Pine Welding (Gas & Arc) 127	3
Metallurgy & Heat Treatment 123	3
	12

COURSES OF STUDY

NUMBERING SYSTEM

In an attempt to clarify the course numbers and make them more meaningful, the following system has been adopted:

The initial digit separates freshman (100) and sophomore (200) level courses.

The second digit usually indicates the type of curricula for which the course is designed. General Studies (0), College Transfer (1), Occupational (2) or (3).

AGRICULTURE

AGR 120 Agriculture Occupations
Acquaints students with various related agricultural occupations. Affords opportunity for discussion and visitations.
Credit: 2 hours — Two lecture hours per week.
Prerequisite: None

AGR 121 Agriculture Bio-Chemistry
Fundamentals of Applied Biology as it relates to ecology, forestry, wildlife, and conservation.
Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: None

AGR 122 Animal Nutrition
Study of the common feeding methods of livestock, including their relation to growth, maintenance and reproduction.
Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: None

AGR 123 Agriculture Soil Science
Fundamental study of the chemical and physical structure of soils of Southern Illinois. Anatomy and physiology of plants. Relationships between soil structure and plant production.
Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: None

AGR 124 Agriculture Soil Science
A study of the various methods of soil testing and how the results can be interpreted to make fertilizer recommendations. Investigations of chemical and organic fertilizers and their uses in modern crop production.

Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: Soil Science 123

AGR 125 Agriculture Mathematics
A course designed to review the fundamentals of mathematics with emphasis on practical applications of basic algebraic functions.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

AGR 126 Agriculture Economics
A study of the role of agriculture in the present economy, nature and size of agricultural industries, future economic prospects for agriculture and government.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

AGR 127 Conservation of Natural Resources
The importance of conservation of agricultural resources at both the national, state, and local levels.
Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: None

AGR 128 Conservation of Water Resources
Study of water sheds, effective methods of controlling floods, pollution and water supplies.
Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: None

AGR 129 Surveying
Fundamentals and concepts of surveying as it applies to agricultural usage in conservation practices.
Credit: 4 hours — One lecture and four lab hours per week.
Prerequisite: None

AGR 130 Agriculture Management
A study is made of the methods, characteristics and types of agriculture in Southern Illinois. Assignments are given which assist the student in applying management principles to a farm operation.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

AGR 131 Products, Sales & Service
An introductory course which covers services rendered, product knowledge, display, pricing, advertising farm products, sales and service.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

AGR 221 Fruit Production Science

A study of the principles and practices in modern fruit production including fruit thinning, pruning, harvesting, and storage.
Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: None

AGR 222 Grain Production Science

A detailed study of various crops, their planting, growth, harvest and utilization. The identification of insects and diseases common to these crops and how these hazards may be diminished.
Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: None

AGR 223 Animal Science

Production methods of livestock, effects of metabolic processes, infections, and parasitic diseases. Selection and genetics of livestock.
Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: None

AGR 224 Agriculture Mechanics

The operation, adjustment, maintenance and repair of farm machinery; with emphasis placed on repairs, including the use of arc and gas welding.
Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: None

AGR 225 Woodland Management

Fundamentals of forestry operations, including principles of stocking, yield, growth, continued production, rotation, and control of cut.
Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Introduction to Forestry 229

AGR 226 Wildlife Management

A study of the balance of nature, habitat improvement, and control of wildlife hunters and predators.
Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: None

AGR 227 Agriculture Chemicals

A study of the role of chemicals in agricultural productions, including herbicides, insecticides, seed treatments, and livestock chemicals. Identification of weeds and insects and the prevention, control,

and eradication of each.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

AGR 228 Plant Propagation
Study of the natural methods of plant propagation and relationships to natural resources.
Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: None

AGR 229 Introduction to Forestry
Control and supervision aspects of commercial uses of forest land.
Credit: 4 Hours — Three lecture and two lab hours per week.
Prerequisite: None

AGR 230 Agriculture Resources Internship
A supervised occupational experience carried out according to an organized, written training plan consistent with the objectives of the curriculum.
Credit: 6 hours — Fifteen to eighteen lab hours per week.
Prerequisite: None

AGR 231 Agriculture Seminar
A structured class to give students an opportunity to discuss problems encountered during internship and reinforce areas in which they find deficiencies.
Credit: 1 hour — One lecture per week.
Prerequisite: None

AGR 232 Crops, Lawn and Garden Sales & Service
A course designed to introduce the student to crop seeds, lawn and garden seeds, and orchard supplies; their characteristics and utilization factors necessary to adapt to Southern Illinois agricultural practices.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

AGR 233 Agriculture Management & Inventory Control
The economic framework of agriculture businesses: organizing for effective management and management in local businesses; servicing agriculture including the management of custom services, retail credit, purchasing, inventory, and customer relations.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: Business Organization 119

AGR 240 Agriculture Occupational Experience

A summer experience to allow students to gain practical knowledge and experience under a supervised, written training plan.

Credit: 3-5 hours — Ten to fifteen lab hours per week.
Prerequisite: One year of the Agriculture Production Curriculum

AGR 241 Agriculture Occupational Experience Seminar

A structured class to give students an opportunity to discuss problems encountered during internship and reinforce areas in which they find deficiencies.

Credit: 1 hour — One lecture hour per week.
Prerequisite: None

AGR 243 Outdoor Recreation and Park Mgt.

Policy, development and administration of outdoor recreation as encountered in forest, park and wildlands. Topics covered include ORRRC report, programs for outdoor recreation; policies for both public and private administration.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

AGR 244 Nature Interpretation

Appreciation of nature as an outdoor activity. Interpretation of nature as it relates to National Park System, National Forests, Wildlife areas and urban sites. Man's current malaise with the natural environment will be stressed.

Credit: 4 hours — Two lectures and four lab hours per week.
Prerequisite: None

BIOLOGICAL SCIENCE

BIO 111 Introduction to Biology

This course sequence covers a year's survey of the plant and animal kingdoms. Included is a broad study of all structure and functions as well as organismic structure and function. Emphasis will be on major plant phyla.

Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: None

BIO 112 Biology

Continuation of Biology 111. Included is a detailed study of the animal phyla, their diversity and adaptations. The organization of the human body will be of major concern.

Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: Biology 111

BIO 113 Biology

Continuation of Biology 112. Stressed will be the reproductive process, principles of the evolutionary theory and ecological relationships of plants and animals. Human ecology will be discussed in view of present and future destiny.

Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: Biology 112

BIO 211 Environmental Biology

A course for the biological science major illustrating the broad principles of ecology on the organismic level, the population level, and the community level. Included are environmental factors, adaptations, energy and material balance, succession and human ecology.

Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: Biology 112

BIO 212 Organismic Biology

A course for the science major with emphasis on the structural and functional organization of organisms including reproduction, hormones and transport, respiratory, skeletal, and secretory systems.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: Biology 112

BIO 213 Botany

Introduction to the structure, development, relationships, ecological and economical importances of the algae, fungi, mosses, ferns and spermatophytes. Special emphasis will be placed on the identification of flowers and trees of the local flora. Taught in spring quarter only.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Biology 112 or approval of the appropriate Dean and Divisional Chairman

BUSINESS

ACC 111 Accounting

An introduction to accounting theory and principles. The successive steps in the accounting cycle. Subjects covered include special journals and ledgers, working papers, adjusting and closing the books, preparation of statements, columnar journals and controlling accounts.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

ACC 112 Accounting

A continuation of the study of accounting principles and their application to partnerships, manufacturing, and payroll. Emphasis on internal control, notes and interest, inventories, depreciation, accruals, and special adjusting entries.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: Accounting 111

ACC 113 Accounting

Corporate accounting dealing specifically with such topics as: capital stock, surplus, and dividends. Emphasis on liabilities and reserves, balance sheet presentation, interpreting statements, budgeting, introduction to tax and cost accounting.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: Accounting 112

ACC 211 Intermediate Accounting

A comprehensive study of financial accounting theory and practice. Subjects covered include foundations of accounting theory, the reporting process, inventories, and asset valuation and income determination.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: Accounting 113

ACC 212 Intermediate Accounting

Continuation of 211. Subjects covered include corporate information, combinations and consolidations, investments, receivables, current and contingent liabilities.

Credit 4 hours — Four lecture hours per week.
Prerequisite: Intermediate Accounting 211

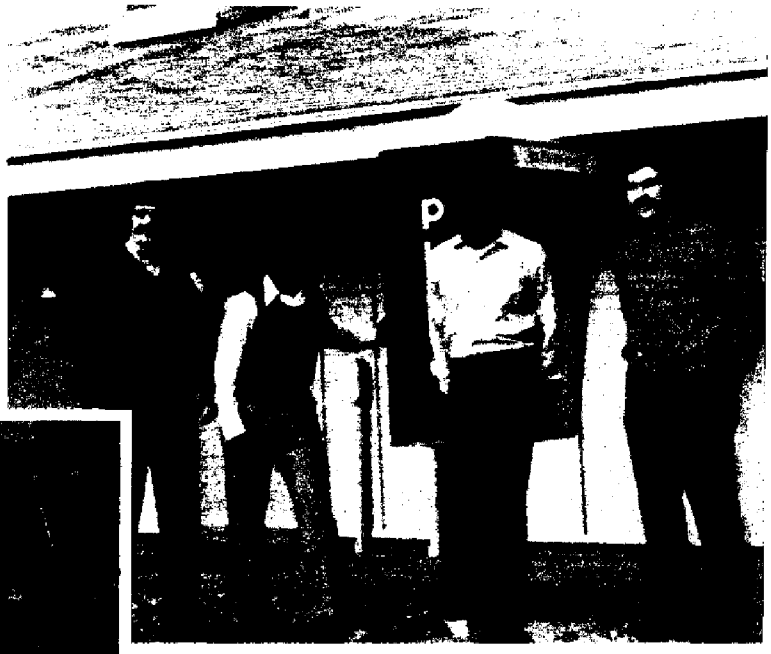
ACC 213 Intermediate Accounting

A continuation of Accounting 212. Continued specialization in corporate accounting, accounting for bonds, fund accounting, statement preparation, continued financial accounting theory and practice.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: Intermediate Accounting 212

ACC 220 Business Finance & Credit

A study of finances of a small business operation; source of money, determination of credit needs, records, security, and repayment plans.



Credit: 4 hours — Four lecture hours per week.
Prerequisites: Accounting 111, Business Math 115

ACC 221 Auditing

Introduction to the principles involved in preparing audits of various accounts of a business enterprise, verifications and investigations, working papers, audit procedures, report writing and ethics of the profession.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: Cost Accounting 222

ACC 222 Cost Accounting

Job order and process accounting for manufacturing costs, theory and technique of costing on actual and normal bases, and distribution costs are presented.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: Accounting 211

BUS 115 Business Mathematics

Review and practice in the fundamental arithmetical processes, with their application to the use of fractions, decimals, weights and measures, payroll deductions, record keeping, banking services, notes and interests, insurance rates, and other typical business calculations.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

BUS 117 Business English

The practical application of English and communication to the needs of business. Examines written communications by surveying several types of business letters, specialized business correspondence and job application papers. Reviews principles of oral communication. Spelling, language and punctuation are incorporated into the study of business communication.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

BUS 119 Business Organization

Study of organization structure; problems of organizing a business; business opportunities; locating, housing, equipping, laying out production facilities; financing; personnel organization, and government business relations.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

BUS 126 Principles of Marketing

Introduction to the marketing structure as it exists and functions. Emphasis is placed upon the manager's and consumer's influence in marketing functions.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

BUS 127 Principles of Marketing

Continuation of Principles of Marketing 126 with considerations of product policies, distribution channels and sales programs.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: Principles of Marketing 126

BUS 128 Introduction to Management

Principles and practices of establishing and operating a business are presented, including opportunities, hazards, and problems which might be encountered.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

BUS 214 Business Law

Introduction to business law as it applies to society. The legal principles of contracts, agencies, employment, partnerships and corporations. The course emphasizes actual cases and identification of basic principles of law that apply to business.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

BUS 215 Business Law

Continuation of Business Law 214. A study of laws that govern commercial paper, personal property, bailments, security devices, insurance, real property, estates, bankruptcy, government and business.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: Business Law 214

BUS 227 Principles of Advertising

An introduction to the principles of advertising with emphasis on the advertising department, agencies, research, choice appeals, and advertising copy layout. Project experience will be given to students.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

BUS 228 Principles of Sales

Basic principles underlying the sales process are covered. The course is designed to promote an understanding of the salesman's obligation to himself, the company, and the customer.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

BUS 230 Office Internship
Students are assigned to an approved cooperating agency for supervised occupational experience in accounting which will follow an organized written training plan consistent with objectives of the curriculum.
Credit: 3-5 hours — Ten to fifteen hours per week.
Prerequisite: None

BUS 231 Office Internship Seminar
A structured class to give students an opportunity to discuss problems encountered during internship and reinforce areas in which they find deficiencies.
Credit: 1 hour — One lecture hour per week.
Prerequisite: None

EDP 121 Introduction to Data Processing
Basic concepts of automatic data processing covering fundamentals, operation, and control panel wiring for unit record equipment (sorter, reproducer, collator, accounting machine and interpreter).
Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

EDP 122 Data Processing
Continuation of Data Processing 121.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: Introduction to Data Processing 121

EDP 124 Typing for Data Processing
Concentration on mastery of both the alphabetic and numeric simulated keyboards of the key punch machine. Emphasis on developing accuracy, speed, and control.
Credit: 1 hour — Two lab hours per week.
Prerequisite: Beginning Typing 121

EDP 125 Accounting for Data Processing
Elementary accounting concepts presented to enable the student to function as a member of business data processing environment.
Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: None

EDP 126 Accounting for Data Processing
Continuation of Accounting for Data Processing 125. Student must complete both courses.

Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: Accounting for Data Processing 125

EDP 127 Key Punching

Key punch and verifying fundamentals, techniques and operation to obtain a high degree of proficiency.
Credit: 4 hours — Five lab hours per week.
Prerequisite: Typing for Data Processing 124

EDP 128 Board Wiring

Continuation of Introduction to Data Processing 121 and 122.
Credit: 4 hours — Five lab hours per week.
Prerequisites: Introduction to Data Processing 121 and 122.

EDP 129 Introduction to Peripheral Machines

An introduction to computer fundamentals and concepts and computer languages. Not designed as a course in computer operation or programming.
Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: None

EDP 130 Introduction to Business Data Processing

An introduction to the types of data processing equipment and their capabilities. Not applicable to one year certificate in Data Processing.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

SEC 120 Indexing and Filing

Fundamentals in alphabetic, numerical, geographic, subject, and alpha-numeric filing and its applications. Indexing practices and rules which govern retrieval of materials will be covered.
Credit: 4 hours — Two lecture and three lab hours per week.
Prerequisite: None

SEC 121 Beginning Typing

Beginning course in touch typewriting. Mastery of the typewriting keyboard and basic theory of typewriting, followed by development of an operational skill of typewriting for personal use and simple business letters. Average operational skill of 30 net words per minute on a 5-minute timed writing. This course may be waived by permission of the department provided the requirements are met in high school typing.
Credit: 4 hours — Two lecture and three lab hours per week.
Prerequisite: None

SEC 122 Intermediate Typing

Review of the manipulative machine parts, development of sustained typewriting power, building continuity in typewriting, developing speed and control. Rough drafts, simple manuscripts, block style letters, punctuation, reference line, tabulated reports, and mailable letter production. Average operational skill of 40 net words per minute on a 5-minute timed writing.

Credit: 4 hours — Two lecture and three lab hours per week.
Prerequisite: Typing 121

SEC 123 Beginning Shorthand

Beginning shorthand covering all of the Gregg Shorthand Theory. Study of brief forms, word building, and phrasing. Work for speed and accuracy in reading and writing shorthand. Writing speed development of 40 words per minute required at completion of course.

Credit: 4 hours — Two lecture and three lab hours per week.
Prerequisite: None

SEC 124 Intermediate Shorthand

Intermediate shorthand with more emphasis on word building, phrasing and speed-building skills. Incidental, but constant emphasis on Business English skills, spelling, punctuation, and vocabulary. Writing speed development of 60 words per minute required at completion of the course.

Credit: 4 hours — Two lecture and three lab hours per week.
Prerequisite: Beginning Shorthand 123

SEC 125 Business Machines

A laboratory course which includes addition, subtraction, multiplication, and division on the ten-key adding machine, rotary, printing, electronic, and key-driven calculators. Basic skills are applied to payroll, percentage, merchandise, and simple interest problems. The student gains necessary skill needed for competent business machine operation.

Credit: 3 hours — Five lab hours per week.
Prerequisite: None

SEC 126 Advanced Typewriting

Concentration on typewriting skill development in speed, accuracy and production for vocational purposes with emphasis on spelling, punctuation, judgment, balance and placement. Special problems in business forms, reports, and duplicating. Average operational skill of 50 net words per minute on a 5-minute timed writing.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Intermediate Typing 122

SEC 127 Advanced Shorthand

Advanced shorthand and transcription development of accurate writing speed at 80 words per minute. Increased emphasis on speed and accuracy of transcription. Integration of specific secretarial skills through intensive dictation and transcription.

Credit: 4 hours — Two lecture and three lab hours per week.
Prerequisite: Intermediate Shorthand 124

SEC 129 Office Practice

A comprehensive study of the business office and its component parts including typical clerk-typist activities related to filing, communication, telephone, mail, reception, duplication, office machines, automation, and human relations. Typing activities and dictaphone transcription are also included.

Credit: 4 hours — Two lecture and three lab hours per week.
Prerequisite: None

SEC 223 Typing & Transcription

Advanced skill development in use of the typewriter for vocational purposes with emphasis on letter styles, statistical tabulations, production work, duplicating, legal typing, special communication forms. Further development of skill in typewriting with speed and control necessary for attaining an average net speed of 60 words per minute on a 5-minute writing.

Credit: 4 hours — Two lecture and three lab hours per week.
Prerequisite: Advanced Typewriting 126

SEC 224 Shorthand and Transcription

Advanced development and skill application in shorthand and transcription. Additional emphasis is given to developing phrasing vocabulary and broadening knowledge of commonly used business terms. More technical type of dictation and transcription continues to be read, written, and typewritten. Writing speed development of 100 words per minute required at completion of course.

Credit: 4 hours — Two lecture and three lab hours per week.
Prerequisite: Advanced Shorthand 127

SEC 225 Advanced Transcription

The combining of typewriting and shorthand skills to develop transcription skill and speed. Includes grammar review, punctuation, and spelling. Expanded word power through dictation and transcription of letters and documents of leading business areas. High speed de-

velopment of 110 words per minute at the completion of the course.
Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Shorthand & Transcription 224

SEC 226 Secretarial Procedures

A comprehensive study of the duties of the secretary. Topics examined include the secretarial profession, dictation and transcription, filing, duplication and reproduction, communications, and human relations. Practical experience is provided on transcription and duplication equipment. Preparation for employment testing is encouraged by the use of employment training manuals.

Credit: 4 hours — Two lecture and three lab hours per week.
Prerequisite: None

SEC 227 Legal and Medical Dictation

Refinement of previous semester's dictation and transcription skills; developing proficiency with transcription machines; introduction to and development of shorthand and transcription skills in medical and legal terminology; spelling, pronunciation, and meanings of medical and legal words; additional development of high speed writing to 120 words per minute.

Credit: 4 hours — Two lecture and three lab hours per week.
Prerequisite: Advanced Transcription 225

FINE ARTS

ART

ART 111 Basic Studio

A studio course designed for the beginner who will learn to create two-dimensional black and white products. This course is meant to develop the drawing skill, emphasis is placed on composition, line, texture, shape and form. Media explored will be graphite, charcoal, conte crayon, tempera paint, print making, pen and ink.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

ART 112 Basic Studio

A studio course designed for the beginner in painting, emphasis placed on the knowledge of the color theory. Media explored will be tempera paint, water colors, acrylics, oils, colored paper and various types of colored prints.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

ART 113 Basic Studio

A basic course designed to introduce the beginner to the third-dimension. Emphasis is on the use of material, balance and form of a sculpture. Materials used are found objects, wood, stone, plaster, metal and clay. The hand-built as well as wheel thrown pottery are introduced and technical problems in firing and glazing.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

ART 114 Art Appreciation

Painting, sculpture and architecture from Greek to the present. Intended to provide acquaintance with, and introduction to, the aesthetic attitude toward the arts of the past and contemporary life. Art forms are examined both for their individual qualities and the manner in which they exemplify changes in Western culture patterns.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

MUSIC

MUS 111 abc College Choir

Membership in the College Choir is open to students with musical experience who wish to continue the study of choral music and

participate in public performances. May be taken as often as desired. Students are urged to remain in choir throughout the year.
Credit: 1 hour — Two lab hours per week.
Prerequisite: None

MUS 211 abc College Choir
Continuation of Music 111 abc.
Credit: 1 hour — Two lab hours per week.
Prerequisite: None

MUS 112 Fundamentals of Music
A study of the details of how sounds are combined to produce music through the actual processes of composing and performing. Students make and play several instruments such as bamboo pipes and drums, experiment with a variety of sounds and rhythms and sing familiar folk and traditional songs. Suitable for pre-teachers and non-music majors.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

MUS 115 Music Appreciation
A listening course designed to increase the student's knowledge and discrimination. Reference to modern and contemporary periods as well as the classics.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

HEALTH OCCUPATIONS

LICENSED PRACTICAL NURSING

NUR 120 Introduction to Basic Nutrition

This course is designed to introduce the practical nurse student to the basic food groups and nutritional requirements essential for maintenance of good health.

Credit: 1 hour — One lecture hour per week.
Prerequisite: None

NUR 121 Basic Nursing Skills

This course will provide the concurrent instruction and supervised clinical laboratory experience necessary to meet the nursing needs of patients at an introductory level.

Credit: 6 hours — Eight lecture hours per week.
Prerequisite: None

NUR 122 Basic Nursing Skills

A continuation of Basic Nursing Skills 121. This course is to familiarize the student with procedures and skills concurrent with the principles underlying their present theory and clinical experience.

Credit: 6 hours — Six lecture hours and two lab hours per week.
Prerequisite: Basic Nursing Skills 121

NUR 123 Body Structure and Functions

This course is intended to help the practical nurse student give more intelligent nursing care because she better understands the normal functions of the body through a basic knowledge of anatomy and physiology. This basic knowledge will be reinforced and built upon throughout the program.

Credit: 5 hours — Six lecture hours per week.
Prerequisite: None

NUR 124 Communications

This course is directed toward improving the verbal, non-verbal and written communicative skills. It is our intention to encourage the nurse to realize the importance of communications in her daily relationship with her patients, co-workers and family. This course will be integrated into all areas.

Credit: 1 hour — One lecture hour per week.
Prerequisite: None

NUR 125 Personal and Community Health

This course is directed toward the practical nurse student acquiring a knowledge and appreciation of health and its effect on social and personal life of the individual, an awareness of the health programs within the community, and an understanding of the basic concepts concerning spread, prevention and control of disease. Also the nurse will obtain a better understanding of the importance of good health, personal hygiene, grooming and poise in her life.

Credit: 1 hour — One lecture hour per week.
Prerequisite: None

NUR 126 Personal and Vocational Relationships

This course is aimed at helping the practical nurse student understand others by better understanding herself, thus making her more effective in group action. It introduces a background of nursing history and shows practical nursing as an integral part of nursing on the vocational level, and develops within the student an awareness of duties, responsibilities, limitations, legal aspects and nursing organizations of practical nursing.

Credit: 1 hour — One lecture hour per week.
Prerequisite: None

NUR 127 Introduction to Mental Health

This course is designed to create within the practical nurse student an awareness of those mental health resources that are available to assist in meeting the physical and mental health needs of the individual. It also emphasizes the importance of communications and interpersonal relationships between the practical nurse student and the patient.

Practice and theory are given in the clinical area and includes the opportunity for observation of the professional team, patient-centered approach and the community approach.

Credit: 3 hours — One and one half lecture hours and five and one half lab hours per week.
Prerequisite: None

NUR 128 Introduction to Pharmacology

This course is designed to develop a clear understanding of the limitations of the practical nurse and to develop a clear and basic knowledge of the safety measures involved in preparation and administration of medicines, the contradictions, sources, usual dosages and usual methods of administration. It also emphasizes the importance of medications, and an ability to observe and report these reactions intelligently.

Credit: 2 hours — Two lecture hours per week.
Prerequisite: None

NUR 129 Nursing Care of Geriatric Patient

Recognizing that our geriatric population is increasing due to improved health and health practices, this course is directed toward a knowledge of the basic human needs of the older person, including physical, social, and emotional needs. Not only that the practical nurse might give understanding and competent care, but that she might develop an awareness of a positive approach toward aging as related to her own life.

Credit: 3 hours — One lecture and eight lab hours per week.
Prerequisite: None

NUR 130 Introduction to Medical-Surgical Nursing

Introductory information regarding common medical-surgical conditions and procedures. Gradual acquisitions of skills and development of judgment in selected medical-surgical situations. Meeting simple nursing needs of patients in this area.

Credit: 4 hours — Two lecture and five lab hours per week.
Prerequisite: None

NUR 131 Medical & Surgical Nursing

The care of selected adult patients in clinical affiliations and the study of disease conditions, symptoms, and diagnostic measures used in such conditions.

Credit: 12 hours — Five lecture and twelve lab hours per week.
Prerequisite: None

NUR 132 Nursing Care of the Mother and Newborn

This course is designed to develop within the practical nurse student an appreciation of the meaning of good prenatal and postnatal care and an understanding of the total birth process. To develop skills in caring for the mother and the newborn and to learn to recognize deviations from the normal in each. The student will learn the health needs of each and will participate in the teaching of these concepts. This will be accomplished through classroom instruction and clinical experience on the maternity division.

Credit: 7 hours — Five lecture and twelve lab hours per week.
Prerequisite: None

NUR 133 Nursing Care of the Child

This course is designed to help the student develop a basic understanding of the normal growth and development of the child, and how illness may interfere with the normal pattern. This understand-

ing will be helpful in evaluation of the physical, intellectual, emotional and social behavior of the child patient. The student learns to care for the sick child using safety precaution, meaningful observations, and suitable nursing techniques. This experience will be accomplished through classroom instruction and clinical experience in the pediatric division and through the observance of the well child in the kindergarten.

Credit: 7 hours — Five lecture and twelve lab hours per week.
Prerequisite: None

NUR 134 Pharmacology

This is a course in theory and practice that offers a basic understanding of the principles of medication administration. It covers the basic information concerning the main effects, uses and dosages of the more common drugs. Practical experience will include administration of medications, observing and recording.

Credit: 2 hours — Two lecture hours per week.
Prerequisite: Introduction to Pharmacology 128

NUR 135 Pharmacology

This is a review and continuation of Pharmacology 134. It also includes information concerning the main effects, uses and dosages of the more common drugs. Practical experience will include administration of medications, observing and recording.

Credit: 2 hours — Two lecture hours per week.
Prerequisite: Pharmacology 134

NUR 136 Nursing Skills

A continuation of Basic Skills 122. This course is to familiarize the student with procedures and skill concurrent with the principles underlying their present theory and clinical experience to include the adult patient.

Credit: 1 hour — One lecture hour per week.
Prerequisite: Basic Nursing Skills 122

NUR 137 Diet Therapy

This course is designed to develop a clear understanding of the basic concept of treatment of disease by diet.

Credit: 1 hour — One lecture hour per week.
Prerequisite: Introduction to Basic Nutrition 120

NUR 138 Personal and Vocational Relationships

A continuation of Personal and Vocational Relationships 126. This course develops within the student an awareness of duties, responsibilities, limitations, ethical and legal aspects, career opportunities

and requirements, and nursing and other organizations.
Credit: 1 hour — One lecture hour per week.
Prerequisite: Personal and Vocational Relationships 126

HEALTH

HLT 111 Health

An introduction to personal health and hygiene. Problems of smoking, alcohol, and drug usage are discussed.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

PHYSICAL EDUCATION

PE 111 abc Physical Education

A basic co-educational program in physical education which emphasizes essentially carry-over activities. Recreational aspects of activities including badminton, golf, bowling, tennis, and other related sports.
Credit: 1 hour — One lecture hour per week.
Prerequisite: None

HUMANITIES

ENGLISH

ENG 101 Reading Improvement

This is a basic or fundamentals course and will be used as a prerequisite for some students. The course is designed to assist the student in developing his reading and study skills to the functional level of achievement necessary for college work. The course provides specific practice required to maintain these skills at a high level. Improvement will be sought in the four areas of reading: vocabulary, comprehension, study skills, and fluency.

Credit: 2 hours — Two lecture hours per week.
Prerequisite: None

ENG 102 Reading Improvement

Continuation of Reading Improvement 101.
Credit: 2 hours — Two lecture hours per week.
Prerequisite: Reading Improvement 101

ENG 103 Reading Improvement

Continuation of Reading Improvement 102.
Credit: 2 hours — Two lecture hours per week.
Prerequisite: Reading Improvement 102

ENG 104 College Preparatory English

This is a basic fundamentals course and will be used as a prerequisite for some students. This beginning course in English grammar and composition includes the fundamental principles of writing and is aimed at helping students who need special assistance in the improvement of writing.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

ENG 105 College Preparatory English

Continuation of College Preparatory English 104
Credit: 3 hours — Three lecture hours per week.
Prerequisite: College Preparatory English 104

ENG 106 College Preparatory English

Continuation of College Preparatory English 105.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: College Preparatory English 105

LITERATURE

LIT 211 Introduction to Poetry
Introduction to poetry. Poetic forms, themes and styles are studied to enhance the student's understanding and appreciation of poetry.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

LIT 212 Modern Fiction
Modern fiction. Representative novels and short stories are examined and studied in terms of style, structure, and contribution to modern civilization.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

LIT 213 Introduction to Drama
Introduction to drama. A study of representative plays with emphasis on various dramatic conventions and devices used to give form and meaning to dramatic principles.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

LIT 214 English Literature
English literature. A survey of English Literature from its early beginnings through James Boswell.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

LIT 215 English Literature
English literature. Eighteenth century poets through the writers of the present.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: English Literature 214

LIT 216 American Literature
American literature. A study of writers and literary documents that contribute to an understanding of the American heritage from the Colonial beginning to the Civil War period.
Credit: 3 hours — Three lecture hours per week.

LIT 217 American Literature
American literature. Continuation of English 216 from the Civil War to the present.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: American Literature 216

LIT 218 World Literature

World literature. A comprehensive survey of representative masterpieces of world literature. Continental literature of the Middle Ages and Renaissance.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

ENG 111 English Composition

A composition course with stress on language skills—reading, writing, speaking, and listening. Reading and writing fall into the general categories of description, exposition, narration, and argumentation.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

ENG 112 English Composition

Continuation of English Composition 111

Credit: 3 hours — Three lecture hours per week.
Prerequisite: English Composition 111

ENG 113 English Composition

Continuation of English Composition 112.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: English Composition 112

FOREIGN LANGUAGE

FRN 111 French

An introductory course designed to present the fundamentals of French grammar, vocabulary, and culture. There is constant use of the language in the classroom, with graduated reading and writing.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

FRN 112 French

A continuation of French 111 with increased stress on conversation. Aspects of grammar of greater complexity are presented, with readings and reports based on French culture and civilization.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: French 111

FRN 113 French

A continuation of French 112.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: French 112

FRN 211 French

Continued practice in speaking and reading French following review of basic principles. Occasional oral reports in French graded to students' conversational level. Practice in reading at sight.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: French 113

FRN 212 French

Continuation of French 211.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: French 211

FRN 213 French

A continuation of French 212.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: French 212

GER 111 German

A beginning course which stresses the conversational approach to the language. Essential grammar is studied and composition is introduced.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

GER 112 German

A continuation of German 111.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: German 111

GER 113 German

A continuation of German 112.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: German 112

GER 211 German

A review of grammar combined with the reading of selected works of contemporary German authors. Oral expression as well as composition is stressed.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: German 113

GER 212 German
A continuation of German 211.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: German 211

GER 213 German
A continuation of German 212.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: German 212

SPA 111 Spanish
An introductory course designed to facilitate conversation from the beginning, with adequate emphasis on writing. The course is taught in Spanish with translation only where necessary.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

SPA 112 Spanish
A continuation of Spanish 111. Increased stress on reading in order to inculcate idiomatic use of the language. Constant oral practice.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: Spanish 111

SPA 113 Spanish
A continuation of Spanish 112.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: Spanish 112

SPA 211 Spanish
Intermediate Spanish. Continued major emphasis on conversation with beginning writing.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: Spanish 113

SPA 212 Spanish
A continuation of 211. Increased use of contemporary oral and written Spanish material from Latin America.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: Spanish 211

SPA 213 Spanish
A continuation of Spanish 212.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: Spanish 212

PHILOSOPHY

PHI 215 Philosophy

Study of chief patterns of philosophic thought. Discussion of persistent problems of philosophy illustrated in the writing of major thinkers from Greece through the 20th Century.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

SPEECH

SPC 111 Speech

Oral communication. This course is designed to give the student the basic principles of interpersonal communication with emphasis upon the techniques of communication orally. Various types of oral presentation are studied with emphasis upon public speaking. Attention is given to voice, bodily action, organization of material and to the speaker's character and responsibility to society.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

SPC 112 Speech

Oral interpretation. Problems and techniques of reading various types of literature orally are studied and practiced.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

SPC 113 Speech

Introduction to drama. Modern and ancient plays are studied with emphasis on dramatic conventions and devices used to give form and meaning to human experience.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

SPC 211 Speech

Public discussion. A study of the principles, methods, and types of discussion and their application in the solving of modern day problems.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: Speech 111 or consent of instructor

SPC 212 Speech

Argumentation and debate. The principles of argument analysis, evidence reasoning, fallacies, briefing, and delivery are studied and applied in debating experiences. Additional credit may be earned through participation in inter-collegiate debates.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: Speech 111 or consent of instructor

SPC 213 Speech
Theater. Emphasis is placed upon basic techniques of acting with application to actual performance in plays.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: Speech 113 or consent of instructor

JOURNALISM

JOU 115 Journalism
Emphasis in newswriting, stressing development of terseness and vigor of style. Studying characteristics of outstanding newspapers. Practice in proofreading and layouts. Class publishes the college paper. Typing ability is helpful; some lab work required.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

JOU 116 Journalism
A continuation of Journalism 115. Greater emphasis on writing heads and leads, feature stories, and editorials.
Credit: 3 hours — Three lecture hours per week.

JOU 117 Journalism
A continuation of Journalism 116
Credit: 3 hours — Three lecture hours per week.

JOU 211 Sophomore Writing
Study and disciplined practice of the basic techniques of effective imaginative writing with considerable allowance for individual interests. Analysis of rhetorical models, discussion of short stories, and criticism of manuscripts produced by class members.
Credit: 3 hours — Three lecture hours per week.

JOU 212 Sophomore Writing
A continuation of Journalism 211.
Credit: 3 hours — Three lecture hours per week.

JOU 213 Expository Writing
Further practice in writing informative and persuasive prose, with considerable allowance for individual interests. Special attention to the kinds of writing expected in advanced academic work: book reports, critical papers, presentation of research findings.
Credit: 3 hours — Three lecture hours per week.

MATHEMATICAL SCIENCE

MAT 101 Mathematics

A course in the fundamental operation of algebra intended for students who lack credit in one year of elementary algebra or desire a review of this matter.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

MAT 102 Mathematics

A course in the fundamental concepts of two and three dimensional Euclidean geometry for students who lack credit in one year of elementary geometry or desire a review of this subject matter.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

MAT 111 Foundations of Mathematics

Designed for elementary teaching curricula. Emphasis on the fundamental operation of numbers including operations with non-decimal bases. Selected mathematical topics chosen with attention given to their historical and philosophical development.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

MAT 112 Foundations of Mathematics

Introduction to algebra. Suitable as a second course for elementary teaching curricula. Sets, the language of algebra, open sentences, the real number system, graphing equations and inequalities in one and two variables, informal geometry, introductory statistics and logic.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

MAT 113 Slide Rule

Fundamental operations on the log-log slide rule.

Credit: 1 hour — One lecture hour per week.
Prerequisite: Knowledge of logarithms & trigonometry.

MAT 114 Intermediate Algebra

Fundamental algebraic operations, linear equations, worded problems, factoring, fractions, exponents, logarithms, radicals, complex numbers, quadratic equations.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

MAT 115 College Algebra & Trigonometry

Sets, notation and operation, the algebra of numbers as a logical system, inequalities, absolute value, coordinate systems, functions and graphs, the circular functions, trig identities, linear and quadratic equations, determinants, binominal theorem, mathematical induction, complex numbers, inverse functions, arithmetic and geographic progressions, exponents and logarithms.

Credit: 5 hours — Five lecture hours per week.

Prerequisite: Intermediate Algebra 114 or satisfactory score on math entrance exam.

MAT 116 College Algebra & Trigonometry

A continuation of College Algebra & Trigonometry 115.

Credit: 5 hours — Five lecture hours per week.

Prerequisite: College Algebra & Trigonometry 115

MAT 117 Analytic Geometry & Calculus

.Introduction to analytic geometry, slope, straight line, the conic sections, functions, limits, continuity, fundamental differentiation.

Credit: 5 hours — Five lecture hours per week.

Prerequisite: College Algebra & Trigonometry 116

MAT 121 Technical Mathematics

An introduction to the basic concepts of mathematics as applied to the concepts of technology. Included will be such topics as basic algebraic operations, functions and graphs, the meaning of an equation, linear equations, exponents and radicals, and quadratic equations.

Credit: 4 hours — Four lecture hours per week.

Prerequisite: None

MAT 122 Technical Mathematics

Further development of mathematical concepts in which the student is introduced to trigonometry, logarithms, systems of equations, inequalities, ratio and proportion.

Credit: 4 hours — Four lecture hours per week.

Prerequisite: Technical Mathematics 121

MAT 123 Technical Mathematics

A continuation of basic mathematics as applied to the concepts of technology. Included will be such topics as using the slide rule and right angle trigonometry.

Credit: 4 hours — four lecture hours per week.

Prerequisite: Technical Mathematics 122

MAT 211 Analytic Geometry and Calculus
Analytic geometry extended, differentiation of algebraic functions, applications of derivatives, maxima, minima, implicit differentiation, Rolle's theorem, concavity, antiderivatives and related topics.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: Analytic Geometry and Calculus 117

MAT 212 Analytic Geometry & Calculus
The definite integral, mean value theorem, variable upper limits, fundamental theorem for integral calculus, Bliss' theorem, applications of definite integrals, introduction to conics and application of conics.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: Analytic Geometry and Calculus 211

MAT 213 Analytic Geometry and Calculus
A continuation of Analytic Geometry & Calculus 212. Introduction to differential equations.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: Analytic Geometry & Calculus 212

PHYSICAL SCIENCE

PHY 101 Physical Science
A course designed to integrate the fields of physics, chemistry, astronomy, and geology in a unified, predominantly non-mathematical approach. The course attempts to present basic physical science concepts, including topics of recent interest.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

PHS 102 Physical Science
An introduction to the basic concepts of chemistry with emphasis on atomic structure and behavior of matter.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: Physical Science 101

PHS 103 Physical Science
An introduction to the basic concepts of physics with emphasis on types of energy and their properties.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: Physical Science 102

PHS 111 Physical Science
An introduction to the basic concepts of chemistry with emphasis on atomic structure and behavior of matter.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: None

PHS 112 Physical Science

An introduction to the basic concepts of physics with emphasis on types of energy and their properties.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: None

AST 111 Introduction to Astronomy

A non-mathematical course in astronomy designed for students in any curriculum. It contains much material of importance for elementary teachers. The course includes a study of the sun and its planets together with a study of the stars and the nebulae beyond the sun. Evening observation of the moon and planets with the telescope and field glasses, together with the study of about 20 constellations, is a main part of the course.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: None

CHE 114 Chemistry

An introductory course in college chemistry designed for all students interested in majors in any of the fields of science including engineering, pre-medical, and pre-dental majors. The lectures will include discussion on the atomic structure of matter, the nature of chemical bonds, chemical equations and the gas laws. Quantitative determinations are made in the laboratory.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisites: Physical Science 111 or high school chemistry and two units of high school algebra or Intermediate Algebra 114.

CHE 115 Inorganic Chemistry and Qualitative Analysis

Continuation of 114; descriptive chemistry of metallic and non-metallic elements. Laboratory work will include qualitative inorganic analysis, systematic separation and identification of cations and anions.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Chemistry 114

CHE 116 Inorganic Chemistry and Qualitative Analysis

Continuation of Chemistry 115; included will be a discussion of analytical and family groups, solubility products, hydrolysis, and coordination compound chemistry.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Inorganic Chemistry and Qualitative Analysis 115

CHE 211 Organic Chemistry

Preparation and chemical properties of alipathic and aromatic compounds. Emphasis in the nature of the covalent bond and reaction of functional groups. Laboratory consists of synthesis and identification of organic compounds.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Inorganic Chemistry and Qualitative Analysis 116

CHE 212 Organic Chemistry

Continuation of Chemistry 211.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Organic Chemistry 211

CHE 213 Organic Chemistry

Continuation of Chemistry 212.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Organic Chemistry 212

GEO 213 Geology

Fundamentals of physical geology with emphasis on geologic principles and processes.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: None

GEO 214 Geology

Continuation of Geology 213.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Geology 213

GEO 215 Geology

Historical geology presenting the essentials of earth history with special emphasis on North America. Course covers earth formation, age, physical changes, past climates, paleontology, and organic evolution.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Geology 214

PHY 216 Physics

A general course in physics intended for those students who desire a major or minor in physics, mathematics majors, pre-engineering students, and other pre-professional students who require a basic course in college physics. The first quarter course is a study of the basic laws of mechanics with considerable emphasis on the solution

of problems. Topics covered include rectilinear motion, rotation, angular and linear momentum, work and energy, special relativity, and elasticity.
Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: High school physics, two years of high school algebra, trig, and permission of instructor, or Math 211 parallel.

PHY 217 Physics
Phenomena of heat, sound, and light. Topics covered include the laws of thermodynamics, traveling and stationary waves, physical and geometrical optics.
Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Physics 216

PHY 218 Physics
Static and current electricity and magnetism. Topics covered include electric and magnetic fields, direct current and alternating circuits, instrumentation, atomic and nuclear physics.
Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Physics 217

PUBLIC AND PERSONAL SERVICE

COM 121 Introduction to Social Work
A survey of the field of social work describing the historical development of social work from the early English Poor Laws through contemporary American practices.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

COM 122 Social Problems
A study of poverty, delinquency, and crime as well as family discord and nationality conflicts. Associations among groups of unequal numbers of power within pluralistic societies will be considered.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

COM 221 Introduction to Group Processes
An introduction to the process of social group work to include fundamental methods, techniques, and skills with emphasis on the concepts and principles as practiced in the modern social agency.
Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: None

COM 222 Advanced Group Processes

A continuation of Group Processes 221. Added emphasis is placed on modern practices of personalizing the learning process to develop more effective relationships.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: Group Processes 221

COM 223 Principles of Recreation

A study of principles involved in organizing and supervising recreational programs for community agencies. Practical experience will be gained through fieldwork.

Credit: 4 hours — Three lecture and two lab hours per week.
Prerequisite: None

COM 224 Introduction to Service Agencies

This course is designed to study the relationship of effective leadership to effective community service, the decision-making process, and the principles at work in local and state governments. Field trips, work shops, and discussions of allied facilities constitutes the major portion of this course.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

COM 225 Practicum

A community agency-based experience providing lectures, practice under the supervision of a trained practitioner. The student participates in staff activities, planning, recording, evaluating, group leading, and other agency tasks.

Credit: 3-5 hours — Ten to fifteen lab hours per week.
Prerequisite: Sophomore standing in Community Service Program

COM 225A Practicum Seminar

A structured class to give students an opportunity to discuss problems encountered during internship and to reinforce areas in which they find deficiencies.

Credit: 1 hour — One lecture hour per week.
Prerequisite: Sophomore standing in Community Service Program and participation in a practicum assignment

COM 226 Practicum

A continuation of Practicum 225.

Credit: 3-5 hours — Ten to fifteen lab hours per week.
Prerequisite: Practicum 225

COM 226A Practicum Seminar
A continuation of Practicum 225A.
Credit: 1 hour — One lecture hour per week.
Prerequisite: Practicum 225A

COM 227 Marriage & Family
A study of the general cultural background of the family in American society including comparison with other times and cultures to give perspective.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

COM 228 Human Growth & Development
A systematic study of behavior from conception through adolescence with emphasis on physical, social, emotional, and intellectual growth and development. The scientific methods of child study and developmental nature of growth are stressed.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

SOCIAL SCIENCES

SEM 101 Seminar in College Life
The student is introduced to the educational opportunities and facilities of the college: social activities, scholarships, study methods, college transfer requirements, and job opportunities. Seminar in College Life is a non-transferable requirement for all graduates of Shawnee College.
Credit: 1 hour — One lecture hour.
Prerequisite: None

SSC 102 Social Science
An introduction to social science, with a general sociological perspective, focusing attention on economic theory, history, political science, and psychology. Emphasis on the structure and function of social institutions, particularly American society.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

SSC 103 Social Science
A continuation of Social Science 102.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: Social Science 102

SSC 104 Social Science

A continuation of Social Science 103.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: Social Science 103

SSC 105 American Ethnic Groups

American Ethnic Groups is a course designed to foster an awareness and understanding of the major minority groups (Black Americans, Japanese Americans, Mexican Americans, and the American Indians) in the United States. This course will emphasize the historical background, culture, and achievements of these groups.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

ANT 216 Anthropology

An introduction and survey of the nature of man, his origins and culture with the main emphasis on cultural anthropology.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

ECO 211 Economics

An introduction to economic principles and theory, the basic economizing problem, suppy and demand, the American economic system, and national income accounting.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

ECO 212 Economics

A continuation of Economics 211, including a study of business cycles, fiscal policies, money-banking and monetary policies, economic growth, and international economics.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: Economics 211

ECO 213 Economics

A continuation of Economics 212, including a study of the economics of the firm, resource allocation, and current domestic economic problems.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: Economics 212

ECO 214 American Economic History

A study of the development of economic institutions in the United States emphasizing the changing structure and performance of the economy.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

GEO 214 World Geography

A study of the primary regions of the world to include such physical factors as topography, climate, vegetation, combined with the human activities within each region.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

GEO 215 Economic Geography

A study of the economic products and industries of the world with emphasis on the geographic significance and importance of each to the world economy.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

HIS 116 Western Civilization

A survey of social, economic, political, and cultural development of the Western world from earliest times to the 14th century.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

HIS 117 Western Civilization

A continuation of Western Civilization 116 emphasizing social, economic, political, and cultural development of the Western world from the 14th century to 1848.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: Survey of Western Civilization 116

HIS 118 Western Civilization

A continuation of Western Civilization 117 emphasizing social, economic, political, and cultural development of the Western world from 1848 to the present.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: Survey of Western Civilization 117

HIS 214 History of the United States

A study of the major political, social, and economic development of the U.S. to 1830.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: None

HIS 215 History of the United States

A continuation of History 214, emphasizing the political, social, and economic developments from 1830 to 1900.

Credit: 3 hours — Three lecture hours per week.
Prerequisite: History of the United States 214

HIS 216 History of the United States
A continuation of History of the United States 215, emphasizing the political, social, and economical developments from 1900 to the present.
Credit: 3 hours — Three lecture hours per week.
Prerequisite: History of the United States 215

GOV 117 Introduction to American Government
A survey of political institutions to include forms and functions of the three levels of government: national, state, and local. Throughout the course, stress will be placed on the right and responsibility of citizenship in the democratic process. Meets the requirement relative to the constitutions of the State of Illinois and the United States as required by Senate Bill 95.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

GOV 118 Comparative Government
A course dealing with the major governments of modern Europe and Asia with reference to the study of political institutions and dynamics of political behavior.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

PSY 211 Introduction to Psychology
An introduction to the study of human behavior, with emphasis on basic psychological principles. Topics such as learning, motivation, intelligence, special senses, and perception are considered.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

PSY 221 Practical Psychology
Basic concepts as it applies to human relations, employee organizations and working conditions. Problems of disciplines, communications, motivation, authority, social change, and teamwork are examined through case studies.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

COM 229 Abnormal Psychology
An examination is made of behavior patterns which aid or interfere with personal efficiency. In order to understand the developmental nature and dynamics of these responses attention is focused upon

abnormal behavior and various techniques of therapy.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

SOCIOLOGY

SOC 212 Sociology

Basic principles of social organization with reference to communities, social institutions, social stratification, concepts of culture, collective behavior, and social change in the contemporary societies.
Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

TRADE AND INDUSTRY

DRAFTING

DRA 120 Fundamentals of Drafting

Basic drafting essentials. Freehand and instrument techniques applied to orthographic, isometric, and perspective representations. Includes sectioning and dimensioning.

Credit: 4 hours — two lecture and four lab hours per week.
Prerequisite: None

DRA 121 Architectural Drafting

Introduction to the basic fundamentals of architectural drawing. Drafting techniques, lettering, methods of showing plans, elevations, sections, dimensioning, and functional planning of facilities.

Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: None

DRA 122 Architectural Drafting

Preparation of working drawings from preliminary plans including detailing. Varied problems of materials, occupancy, and structural systems will be presented.

Credit: 4 hours — two lecture and four lab hours per week.
Prerequisite: Architectural Drafting 121

DRA 123 Zoning and Code Planning

A survey of national, states, and local ordinances and codes as applicable to the construction industry.

Credit: 4 hours — Four lecture hours per week.
Prerequisite: None

DRA 124 Materials & Methods of Construction

Introduction to materials and products used in wood frame construction. Standards of construction of the building construction industry.

Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: None

DRA 125 Materials & Methods of Construction

Continuation of Materials and Methods 124 with consideration of masonry, concrete, and steel as used in the construction industry.

Credit: 4 hours — Two lecture and four lab hours per week.
Prerequisite: Materials & Methods 124

DRA 127 Engineering Graphics

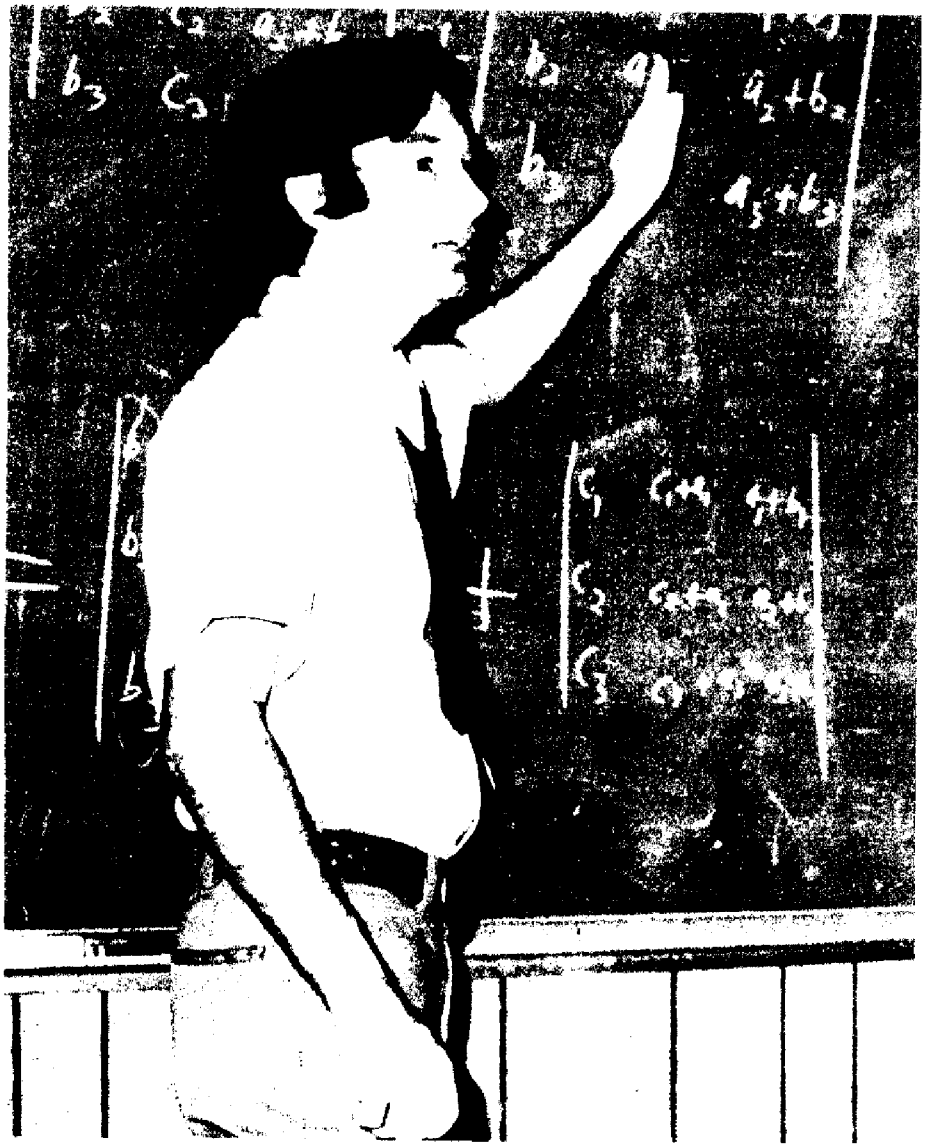
An application of descriptive geometry to problem solving. Points, straight lines, planes, curved lines and warped surfaces in space and intersections. Graphical representation of data and solutions of mathematical problems.

Credit: 4 hours — two lecture and four lab hours per week.
Prerequisite: None

DRA 129 Surveying

Elementary fundamentals of surveying as applicable to the construction industry.

Credit: 4 hours — two lecture and four lab hours per week.
Prerequisite: None



CAREER EDUCATION

AUTOMOTIVE MECHANICS

AUT 110 Steering Systems
Study of the nomenclature, theory and service procedures encountered with standard and power steering systems. Emphasis stressed on steering and front-end alignment.
Credit: 2 hours — One lecture and two lab hours

AUT 111 Multi-Cylinder Engines
Study of two, four, six, and eight cylinder engines. Emphasis on disassembly, inspection, repair and reassembly of engines.
Credit: 3 hours — Two lecture and two lab hours per week.

AUT 112 Engine Servicing
Diagnosing automotive engine conditions using dynamometers and electronic testing equipment. Emphasis on operation of equipment, trouble-shooting, repairing and tune-up.
Credit: 3 hours — Two lecture and two lab hours per week.

AUT 113 Automotive Power Trains
Study of clutches, manual transmissions, drive lines, differentials and related components. Emphasis is on study of construction, operating principles, repairing, adjustments and transferring of power.
Credit: 3 hours — Two lecture and two lab hours per week.

AUT 114 Auto Heating and Air Conditioning Systems
This course is designed to train students on operations and servicing of automobile air-conditioners, heaters, and controls. Basic testing equipment will be used to determine repairs needed.
Credit: 3 hours — Two lecture and two lab hours per week.

AUT 115 Shop Orientation and Safety
This course is designed to give students basic shop skills with emphasis being placed on safety practices used around automotive testing equipment.
Credit: 2 hours — Two lecture hours per week.

AUT 116 A.C. & D.C. Electrical Systems
Study of the theory, operation and repair of automotive electrical systems with emphasis being placed on operation of electrical testing equipment.
Credit: 3 hours — Two lecture and two lab hours per week.

AUT 117 Brakes, Wheel Alignment, Balance and Suspension Systems

Study of manual and power brake systems, suspension systems, principles and theory of front wheel alignment, dynamic and static wheel balance. Emphasis is placed on operating principles, trouble shooting, repairing systems using latest equipment available.

Credit: 3 hours — Two lecture and two lab hours per week.

AUT 118 Auto Service and Management

Introduction to Management, organization, and operation of automotive business. Study is to include operating procedures, employee and labor relations, productivity, shop layout and planning, customer relations, record keeping, purchasing and basic principles of merchandising.

Credit: 3 hours — Three lecture hours per week.

AUT 119 Fuel and Fuel Systems

Study of the construction, operation, and maintenance of engine fuel systems; study covers various types of fuel pumps, carburetors and other components found in fuel systems.

Credit: 3 hours — Two lecture and two lab hours per week.

AUT 123 Manual and Automatic Transmissions

Study of various types of manual and automatic transmissions, their operation, maintenance, testing, overhaul, and reassembly. Emphasis placed on basic principles of operation.

Credit: 3 hours — Two lecture and two lab hours per week.

AUT 124 Diesel

Study of types, construction, and principles of operation of diesel engines including fuel and injection systems.

Credit: 3 hours — Two lecture and two lab hours per week.

AUT 126 Automotive Blueprint Reading

Fundamentals of sketching and automotive blueprint reading. Application will be made for reading blueprints for automotive mechanics.

Credit: 3 hours — Two lecture and two lab hours per week.

AUT 127 Practicum

Course is designed to assist students with the application of information and skills acquired in previous automotive courses.

Credit: 4 hours — Twelve lab hours per week.

ELECTRONICS

ELT 121 Basic Electricity
A study of basic direct current theory.
Credit: 3 hours — Two lecture and two lab hours per week.

ELT 122 Basic Electricity
Fundamental concepts of alternating current theory.
Credit: 3 hours — Two lecture and two lab hours per week.

ELT 123 Basic Electronic Theory
This course includes fundamental topics of electricity such as voltage, current resistance, series & parallel circuits, power inductance, capacitance, and magnetism. The student is also familiarized with professional quality test equipment.
Credit: 3 hours — Two lecture and two lab hours per week.

ELT 124 Electronic Devices
A study of electronic devices; how they work, nomenclature, materials, apparatus, and characteristics. Both tube characteristics and solid state device characteristics are covered. This course utilizes the mathematical tools as they become available and the ideas of electron flow and circuit analysis. Laboratory techniques and skills are taught by extensive use of a variety of devices and equipment.
Credit: 3 hours — Two lecture and two lab hours per week.

ELT 125 Resistive Circuits
This course consists of a study of circuits containing only resistive elements, driven by all types of forcing functions. It introduces the physics of electricity, and the units, definitions, symbols, and notations for electrical quantities.
Credit: 3 hours — Two lecture and two lab hours per week.

ELT 127 Electronics Testing Devices
A study of the theory, operation and care of measuring instruments. This course is to provide a broad source of information on precision measurement techniques with primary emphasis on electrical and electronic equipment. Laboratory work consists of numerous exercises in the use and calibration of typical precision measuring instruments.
Credit: 3 hours — Two lecture and two lab hours per week.

ELT 128 Electronic Circuit Analysis
This course is intended to provide an understanding of the operation of electronic circuits and analysis methods for them. Among the topics for discussion are feedbacks, oscillators, clippers, clampers,

modulation and detecting systems, pulse wave shaping, multivibrators, logic circuits and others.
Credit: 3 hours — Two lecture and two lab hours per week.

ELT 129 Electronic Circuit Design
This course provides the student with an opportunity to apply previously acquired knowledge in the design, construction, and testing of an electronic project. Emphasis is on state-of-the-art devices and techniques of construction and packaging.
Credit: 3 hours — Two lecture and two lab hours per week.

ELT 130 Motors and Generators
The objective of this course is to acquaint the student with the fundamentals of motors and generators and their associated controls and accessories.
Credit: 3 hours — Two lecture and two to six lab hours per week.

ELT 131 Basic Audio Circuits
The course provides students with a basic knowledge of audio circuits, trouble shooting of radio, communication systems and signal transmission and receiving devices.
Credit: 3 hours — Two lecture and two lab hours per week.

ELT 132 Basic Video Circuits
This course is designed to acquaint students with TV reception and circuits. Circuit analysis and trouble shooting of black and white will be stressed. An introduction to color circuits and patterns will be covered.
Credit: 3 hours — Two lecture and two lab hours per week.

ELT 140 Drafting for Electronics
In this course, the student studies fundamentals of drafting, electronic symbols, block and schematic diagrams, chassis layouts, printed circuits, connection diagrams, and graphs.
Credit: 3 hours — Two lecture and two lab hours per week.

FARM EQUIPMENT MECHANIC

FER 111 Planting & Tillage Equipment
This is a course to create an understanding of the design, operation and maintenance of seed-bed preparation and planting equipment. Emphasis on field operation, adjustment, and maintenance of equipment.
Credit: 3 hours — Two lecture and two lab hours per week.

FER 112 Agricultural Chemical Equipment
A study of the materials and equipment used for application of herbicides and insecticides in agriculture. Emphasis on meeting State of Illinois regulation for commercial application of chemicals.
Credit: 3 hours — Two lecture and two lab hours per week.

FER 115 Farm Power I (Gasoline Engines)
A course to familiarize the student with the operation principles of an internal combustion gasoline engine. The student will disassemble, measure, repair, and reassemble the gasoline engine.
Credit: 3 hours — Two lecture and two lab hours per week.

FER 116 Farm Power II (Diesel Engines)
A study of basic fundamentals of a diesel engine. Emphasis on fuel injection systems, super-charged two cycle engines and turbo-charged engines.
Credit: 4 hours — Two lecture and four lab hours per week.

FER 117 Hydraulics I
A course designed to teach the basic parts of a hydraulic system. Considerable time will be spent learning principles of hydraulics and their use in agriculture.
Credit: 3 hours — One lecture and four lab hours per week.

FER 118 Hydraulics II
The use of testing equipment and diagnostic procedures in finding problems of various hydraulic systems.
Credit: 3 hours — One lecture and four lab hours per week.

FER 119 Harvesting Equipment
A course designed to give students the principles of operation of harvesting machines. Emphasis on field adjustments, repair, and maintenance.
Credit: 3 hours — Two lecture and two lab hours per week.

FER 120 Principles of Farm Mechanization
A course about general use of mechanics in agriculture. Emphasis on materials, handling equipment, compressed air, hydraulics, electrical equipment, and controls.
Credit: 3 hours — Three lecture hours per week.

FER 121 Electrical Systems

A basic study of electrical systems used in agricultural equipment. The course is broken down into starting, generating, and lighting systems.

Credit: 3 hours — Two lecture and two lab hours per week.

FER 122 Transmissions and Final Drives

A study of various methods of transmitting power in agricultural equipment. Course will include differentials, mechanical transmissions, synchronizers, planetary gears, and hydraulic transmissions.

Credit: 3 hours — One lecture and four lab hours per week.

FER 124 Power Unit Testing and Diagnosis

A course designed to teach the student how to use diagnostic and testing equipment as related to agricultural equipment. Use of dynamometer, dwell meter, tachometer, ohm meter and electrical testing equipment.

Credit: 3 hours — Two lecture and two lab hours per week.

FOOD SERVICE

FOS 110 Introduction to Food Services

The study of the food services to man. It will provide necessary primary education needed for food preparation by studying the equipment and proper use of equipment.

Credit: 4 hours — Two lecture and four lab hours per week.

FOS 111 Food Service Sanitation and Safety

A study of the fundamental principles involved in maintaining sanitary standards. The conditions and factors necessary to comply with regulatory agencies are discussed. The student is familiarized with the major components of a food plant sanitation program and personal hygiene.

Credit: 4 hours — Two lecture and four lab hours per week.

FOS 112 Introduction to Food Preparation

The study of food preparation by use of recipes, weights, & measures, tools, and utensils (recognition & identification). Food cost control, tasting and food serving.

Credit: 4 hours — Two lecture and four lab hours per week.

FOS 113 Introduction to Meat Cutting

The study of principles pertaining to meat cutting. The study of the animal body structure and most feasible use of cuts.

Study of Carcass of:

(a) Beef
(b) Pork
(c) Lamb
(d) Fish

Credit: 2 hours — One lecture and two lab hours per week.

FOS 114 Introduction to Baking

Study of basic bread, sweets and meat baking. The study of sponge doughs and fermentation, internal temperature causes and overheating. The understanding of the food value of baking and the basic bread doughs as a foundation food.

Credit: 2 hours — One lecture and two lab hours per week.

FOS 116 Food Plant Equipment

A survey course designed to introduce the student to various types of food preparation equipment.

Credit: 3 hours — Two lecture and two lab hours per week.

FOS 117 Fish, Egg, & Poultry Cooking

Preparation of fish; understanding of grade & quality. Methods of cooking and preparation of eggs — egg grading & sizing — use of prepared eggs in reusable & palatable dishes. Poultry preparation — large fowl baking — stewing and frying to maintain minimum waste with maximum taste appeal.

Credit: 4 hours — Two lecture and four lab hours per week.

FOS 123 Cooking Technology

A study of the fundamental principles in cooking as a means of food processing. General methods of food processing are also introduced. The laboratory introduces the student to the actual unit operations performed in food preparation.

Credit: 3 hours — Two lecture and two lab hours per week.

FOS 124 Meat Processing and Cutting

Actual processing of:
Beef
Pork
Poultry
Veal
Lamb

Both institutional bulk cut and prime table cuts. Suitable for locker plant and retail shop training.

Credit: 3 hours — One lecture and four lab hours per week.

FOS 125 Baking Laboratory

Practical shop exposure of training in bread and sweet doughs. Exposure to palatability, kind, quality and proportion of ingredients. Explanation and proof of difference of homemade and professional looking and tasting baked goods.

Credit: 3 hours — One lecture and four lab hours per week.

FOS 126 Quality Control

The study of various chemical analysis conducted on food products and water supplies to control product quality. The laboratory supports the principles and theory and makes the student familiar with the skills and techniques to perform food analysis.

Credit: 3 hours — Two lecture and two lab hours per week.

FOS 127 Nutrition

A study of the fundamentals by which living things take in food and use it. The study of the nutrients as discovered by science. The study of the five major nutrients (1) protein (2) carbohydrates (3) fats (4) vitamins, (5) minerals.

Credit: 3 hours — Three lecture hours per week.

FOS 130 Food Services Internship

A study of the fundamental principles involved in the processing of food, meat, and bakery products. The lab subjects the student to the necessary operations to be performed in the processing of all food products.

Credit: 4 hours — Twelve lab hours per week.

MACHINE TOOL OPERATION

MAC 115 Industrial Shop Fundamentals

This course will acquaint the student with hand tools, layout tools, semi-precision and precision measuring instruments, and shop safety procedures and equipment. He will develop skill and proficiency in their use as required by the machine tool operator.

Credit: 4 hours — Two lecture and four lab hours per week.

MAC 118 Lathe Operations

This course will prepare a person for entry level employment as a lathe operator in a production or job machine shop. He will develop proficiency in the safe operation of the engine, tool-room, and turret type lathes. Such operations as drilling, reaming, threading, and the use of the attachments, fixtures, and special purpose tooling will be emphasized. He will also learn to determine speeds, feeds, and prop-

er tool selection in machining various types of materials.
Credit: 4 hours — Two lecture and four lab hours per week.

MAC 119 Milling Machine Operations

This course will prepare a person for entry level employment as a milling machine operator in a production or job machine shop. He will develop skill in the safe operation of the universal horizontal column and ram type vertical milling machine including the use of all available attachments, fixtures, and special purpose tooling.
Credit: 3 hours — Two lecture and two lab hours per week.

MAC 120 Elementary Mechanics of Materials

In this course the student will study the fundamentals of fluid mechanics, strength of materials, and applied mechanics as they relate to machine shop operations.
Credit: 4 hours — Two lecture and four lab hours per week.

MAC 121 Machine Tool Fundamentals

In this course the apprentice studies measuring instruments, gauges, and the theory of metal cutting. This course includes machine shop experience on use and care of hand tools, taps, and tapping methods, allowances and tolerances for standard fits and thread fits, the drill press, power saw, band saw, engine lathe, milling machines, grinders, cutting fluids, and surface finish.
Credit: 4 hours — Two lecture and four lab hours per week.

MAC 122 Machine Tool Operations

This course is designed to acquaint students with total operations of machining tools, uses and adaptability.
Credit: 4 hours — Two lectures and four lab hours per week.

MAC 123 Metallurgy and Heat Treatment

A study of the fundamental characteristics and properties of metals including machinability, bonding, and heat treatment.
Credit: 3 hours — Two lecture and two lab hours per week.

MAC 124 Manufacturing Process Fundamentals

This course includes machine shop experiences, use of measuring tools, care and use of hand tools, taps, and tapping methods, bearings and their application, precision finishes and fits by scraping, honing, and lapping, allowances and tolerances for standard fits and thread fits, inspection equipment, casting techniques, forge operations, welding techniques, and materials of industry.
Credit: 3 hours — Two lecture and two lab hours per week.

MAC 125 Machine Shop

This course is designed to give students experience in work layout. and tool selection and will develop proficiency in the set-up and operation of the drill press, power saw, milling machine, shaper, surface grinder, and engine lathe.

Credit: 3 hours — One lecture and four lab hours per week.

MAC 132 Machine Design

This is a course in which the design principles of certain machine elements are considered and calculations are made for determination of their size and shape. It includes factors which influence the selection of materials, the geometry of the element, and considers the environment of application of any particular machine element. Attention is given to economy, various loading conditions, stresses, and deformations which must be considered in developing a satisfactory design.

Credit: 3 hours — Two lecture and two lab hours per week.

MECHANICAL DRAFTING

DRA 131 Blueprint Reading

The fundamentals of blueprint reading involving the meanings of lines, symbols, notes, and specifications as applied to industry.

Credit: 4 hours — Three lecture and two lab hours per week.

DRA 132 Tool Design

A study of the principles of production machine tooling involving the design of cutting tools, dies, jigs, and fixtures.

Credit: 3 hours — Two lecture and two lab hours per week.

DRA 133 Machine Design

Assigned problems involving the analysis of motions required and the selection of suitable mechanisms, materials, and joining requirements.

Credit: 3 hours — Two lecture and two lab hours per week.

DRA 134 Mechanisms

A study of the characteristics of mechanisms and the principles of schematics by solving problems dealing with levers, gears, cranks, cams, and links.

Credit: 3 hours — Two lecture and two lab hours per week.

DRA 135 Mechanical Drafting

Practical application of precision and limit dimensioning in working drawings. Continuation of Drafting 122 with emphasis on descriptive geometry, threads and fasteners, gears, cams, weldments, piping

drawings, surface developments, and simplified drafting.
Credit: 3 hours — Two lecture and two lab hours per week.

DRA 136 Electric, Hydraulic and Pneumatic Controls
A study of standard electrical, hydraulic, and pneumatic standards, nomenclature, and symbols. The student will prepare schematic and single line drawings for assigned problems.
Credit: 3 hours — Two lecture and two lab hours per week.

DRA 137 Specifications (Mechanical & Architectural)
This course is designed to include the following: basic principles of architectural specifications; selection of ancillary construction requirements; basic calculations of system demands and the means of attainment for mechanical and electrical systems including illuminations.
Credit: 3 hours — Two lecture and two lab hours per week.

OFFICE MACHINE REPAIR

OMR 120 Introduction to Office Machines
To develop an understanding of basic office machines used in different types of business and industry. Basic theory of machine parts, their function and usage.
Credit: 4 hours — Two lecture and four lab hours per week.

OMR 121 Typewriter Repair I (Manual)
This course is designed to give students a knowledge of trouble shooting for manual typewriter repair. Disassembling and reassembling will be stressed before repairs are started.
Credit: 3 hours — Two lecture and two lab hours per week.

OMR 122 Typewriter Repair II (Electric)
This course will provide students with basic theory of electronics and electrical circuits. Motors will be stressed in relation to their function in electric machines.
Credit: 4 hours — One lecture and six lab hours per week.

OMR 124 Adding Machine Repair (Manual)
Study of basic manual adding machines. Theory of operation and function of parts will be stressed.
Credit: 4 hours — Two lecture and four lab hours per week.

OMR 125 Electric Adding Machine Repair
Basic course in ten-key electric adding machines. Students will study motors, disassembling and reassembling of complete electric unit.
Credit: 4 hours — Two lecture and four lab hours per week.

OMR 126 Basic Calculators
An introductory course designed to acquaint students with functions and repair of calculators.
Credit: 3 hours — Two lecture and two lab hours per week.

OMR 127 Introduction to Duplicating Machines
This course will be centered around manual duplicating machines. Study will be given in types of masters, machines and reproductability processes. Inks and fluids will also be stressed.
Credit: 3 hours — One lecture and four lab hours per week.

OMR 128 Office Machine Sales and Service
An introductory course which covers services rendered, product knowledge, display, pricing, advertising, sales and service.
Credit: 3 hours — Three lecture hours per week.

OMR 129 Introduction to Electric Office Machines
Introduction to electric office machines is designed to train students on electric machines. Adding machines, typewriters, and duplicating equipment will be introduced to students.
Credit: 3 hours — Two lecture and two lab hours per week.

OMR 130 Consumer Relations
Specific office machine sales and repair will be stressed. Students will be required to demonstrate proficiency in personality development.
Credit: 3 hours — Three lecture hours per week.

OMR 131 Schematic Design
This course gives students basic theory of layout in both manual and electric typewriters and adding machines. Trouble shooting schematics will be stressed in conjunction with lab work.
Credit: 2 hours — One lecture and two lab hours per week.

OMR 132 Practicum
This course is designed as a laboratory experience. Previous training will be practiced.
Credit: 4 hours — Twelve lab hours per week.

ORNAMENTAL HORTICULTURE

OHT 111 Introduction to Horticulture Plants

Techniques and procedures are used to modify, complement, and supplement the total plant and environment so the horticulturist may propagate, produce, and maintain plants and planting. Laboratory exercises are designed to develop specific skills dealing with plant growing, transplanting, and pruning.

Credit: 3 hours — Two lecture and two lab hours per week.

OHT 112 Floriculture

This course gives every student the opportunity to apply and explore plant culture under glass and outdoors. The course emphasizes laboratory experience and intensive instruction to provide knowledge, skills, and criteria for judgment in plant production.

Credit: 3 hours — Two lecture and two lab hours per week.

OHT 113 Landscape Layout and Design

A study of the theory and principles of landscape design applied to selected landscape problems. In the laboratory preliminary sketches and final presentation drawings are made in plan, elevation, and perspective.

Credit: 3 hours — Two lecture and two lab hours per week.

OHT 125 Turfgrass Culture

The course begins with the soil required for different kinds of turf and continues intensive study of successive steps from propagation through seed bearing; includes methods of identification of turf species at all stages of development. Pest identification, prevention, and control are studied in detail.

Credit: 3 hours — Two lecture and two lab hours per week.

OHT 127 Nursery Operations

An introduction to techniques and practices used in the commercial production of herbaceous perennials, ground covers, deciduous shrubs, and trees, conifers, and broadleaf evergreens. Greenhouse and nursery procedures and practices are emphasized.

Credit: 3 hours — Two lecture and two lab hours per week.

OHT 128 Insecticides and Herbicides

A study of the role of chemicals used in horticulture productions, including herbicides, insecticides, seed treatments, and chemical safety. Identification of weeds and insects and the prevention, control, and eradication of each.

Credit: 3 hours — Two lecture and two lab hours per week.

OHT 130 Greenhouse Management

A study of basic greenhouse designs and their usefulness and adaptation to both horticulture and floriculture plants. Laboratory practices will be utilized on individual project basis.

Credit: 3 hours — One lecture and four lab hours per week.

OHT 131 Horticulture Business Management

A course utilizing and extending the elementary information and techniques learned for proper management of a horticulture operation. Operations include greenhouse, landscaping, and turf management. This course is designed as a completion course of the entire curriculum.

Credit: 3 hours — Three lecture hours per week.

OHT 132 Drainage and Irrigation

This course is designed to give students a knowledge of drainage and irrigation procedures, capacities, layouts, rate of flow and elevations.

Credit: 2 hours — One lecture and two lab hours per week.

TEACHER AIDE

TEA 121 Introduction to Education

This course examines the role of the trained teacher aide at all levels of work in various areas of the curriculum. An in-depth study will be made of the duties, responsibilities and ethical principles of the teacher aide. A consideration of the future of the role of personnel in such positions will be made.

Credit: 4 hours — Four lecture hours per week.

TEA 122 Audiovisual and Library

Operations of audiovisual equipment, organization of materials and books, preparation of audiovisual aids such as bulletin boards, mounting pictures, lettering.

Credit: 4 hours — Three lecture and two lab hours per week.

TEA 123 Children's Literature

An exploration of reading materials commonly enjoyed by young people ranging in age from two to ten years. A wide variety of story telling, dramatization of stories, oral reading in the field of children's books will be offered. Both content and illustrations of these books will be examined and evaluated, and ability to determine the worth of a book will be developed.

Credit: 4 hours — Four lecture hours per week.

TEA 124 Recreation and Playground Supervision

This course suggests fundamentals of playground supervision, classroom activities, parties and programs for special occasions. Examples of suitable play activities, running games, unsuitable play activities, games for shy children, cliques, how to avoid serious accidents, what to do in case of accident, indoor games, semi active games, singing games, and simple rhythm activities will be dealt with.

Credit: 4 hours — Four lecture hours per week.

TEA 125 First Aid

This course is designed to acquaint the teacher aide with basic first aid. Lectures, demonstrations and practice in laboratory situations will be used as methods of instruction.

Credit: 2 hours — Two lecture hours per week.

TEA 126 School Forms

A working knowledge of the forms used in the record keeping of the schools will be presented to the prospective teacher aide to facilitate her efficiency in accurately recording information as well as finding information.

Credit: 1 hour — One lecture hour per week.

TEA 127 Community Resources; This course is intended to acquaint the teacher aide with the resources of the community. Such resources may be used to augment the instructional courses in the classroom. Scenic areas, parks, airports, museums, factories, artists, supermarkets, railroads and trains, musicians and music groups, may be used for field trips, classroom enrichment experiences as well as expertise presentations on various subjects.

Credit: 1 hour — One lecture hour per week.

TEA 128 Public Relations

Through taking this course it is expected that the teacher aide will become aware of the school as a complex public owned institution and realize that the image which the public receives plays a great part in the support which the public gives the institution. Therefore, the teacher aide has the responsibility of understanding his or her role in helping to transmit a positive impression to the public in a truthful and tactful manner.

Credit: 1 hour — One lecture hour per week.

TEA 129 American Public Education

This course provides an orientation to the profession of teaching and to the American education system. Among the topics studied are:

1. Organization of public education.

2. Levels of public education—federal, state, and local
3. School personnel
4. The curriculum and related activities
5. Educational materials and environment
6. Current issues and trends in American public education

Credit: 4 hours — Four lecture hours per week.

TEA 221 Arts and Crafts

This course is designed to permit students to actively explore available mediums (paints, clay, paper mache raffia, soap carving, pototo printing, binding and mounting pictures, bottle decoration, paper plate designs, weaving processes etc.). The teacher aide will be taught familiar first hand processes and knowledge of materials, procedures and objectives of the instruction in the art program at various levels of achievement.

Credit: 4 hours — Three lecture and two lab hours per week.

TEA 222 Music

The teacher aide in the elementary school will frequently have a need to lead singing games, rounds, folk songs, action songs, and the like in recreational activities, therefore, she should have a command of folk songs and games, camp songs, singing games, creative movement with music and the use of the autoharp and guitar for accompaniments. A loose leaf notebook should be compiled and kept up to date as a source book.

Credit: 4 hours — Four lecture hours per week.

WATER TREATMENT

WWT 121 Introduction to Water and Wastewater Technology

A study of methods of disease transmission, hygienic excreta disposal, municipal and industrial wastewater collection and treatment characteristics of water (polluted and unpolluted), water treatment.

Credit: 3 hours — Two lecture and two lab hours per week.

WWT 124 Water/Wastewater Mechanics

A course in the structure and mechanics of centrifugal, rotary, and reciprocating pumps, chlorinators, etc.

Credit: 3 hours — Two lecture and two lab hours per week.

WWT 125 Wastewater Technology

A course in chemical, physical and biological aspects of wastewater designed to familiarize students in control aspects of wastewater effluents.

Credit: 3 hours — Two lecture and two lab hours per week.

WWT 126 Sewage Treatment

A further study of course 125 with emphasis on individual projects.

Credit: 3 hours — Two lecture and two lab hours per week.

WWT 127 Water Treatment Technology I

A study of basic principles of water purification including aeration sedimentation, rapid sand filtration, chlorination, flocculation, coagulation, taste, and odor control, bacteriological control, mineral control, design criteria, maintenance programs and operational problems. Standards, criteria, rules, regulations, forms and records associated with the field are studied.

Credit: 3 hours — Two lecture and two lab hours per week.

WWT 128 Water Treatment Technology II

An intensified version of course 127 with emphasis on independent study and research.

Credit: 4 hours — Two lecture and four lab hours per week.

WWT 122 Water and Sewage Purification

A review of all previous courses with utilization of on-the-job-training to relate theory.

Credit: 3 hours — Two lecture and two lab hours per week.

WWT 130 Health and Sanitation

A basic study of the need for pure water to homes, businesses, etc., need for control on B.O.D., C.O.D., phosphorus, nitrogen, bacteriological counts on wastewater effluents and related health hazards, diseases, etc.

Credit: 2 hours — Two lecture hours per week.

WWT 131 Coding and Planning

A study of internal plant operations (water and sewage) with emphasis on plant management, cost budgeting etc.

Credit: 2 hours — Two lecture hours per week.

WWT 132 Water/Wastewater Mechanics

Mechanical study of water pumps, aerators, flocculators, chlorinators and related equipment used in water treatment.

Credit: 3 hours — One lecture and four lab hours per week.

WELDING

WEL 120 Introduction to Gas Welding

A study of the techniques, procedures and uses of gas welding. Included in this course are the uses of gas for blow pipe and cutting, and the properties of gases, acetylene and oxygen as they relate to their functions.

Credit: 3 hours — Two lecture and two lab hours per week.

WEL 121 Brazing: Soldering Cutting Processes

A study of brazing and soldering techniques and the usage of compounds and other materials used to braze and solder.

Credit: 3 hours — Two lecture and two lab hours per week.

WEL 123 Basic Arc Welding

A study of welding processes used by industry. The majority of the course is devoted to stick arc welding, concentrating on flay vertical, overhead, and tool room welding.

Credit: 3 hours — Two lecture and two lab hours per week.

WEL 124 Advanced Arc Welding

A continuation of welding 123: Metallic arc welding on heavy gauge steel in all positions using AC and DC welding machines and special application to electrodes, ferrous metals, and nonferrous metals.

Credit: 3 hours — Two lecture and two lab hours per week.

WEL 125 MIG & TIG Welding

A study of TIG and MIG short arc welding.

Credit: 3 hours — Two lecture and two lab hours per week.

WEL 127 Pipe Welding (Gas & Arc)

A course in the techniques of pipe welding using gas arc.

Credit: 3 hours — Two lecture and two lab hours per week.

GENERAL EDUCATION REQUIREMENTS

General Education Requirements for the senior educational institutions to which most students transfer from Shawnee College:

EASTERN ILLINOIS UNIVERSITY

To be eligible to transfer a student must have an overall C average (2.00 on a 4.0 scale) in all college work.

The General Education Requirements are:

English	6 s.h. or 9 q.h.
Speech	3 s.h. or 4.5 q.h.
Health Education	2 s.h. or 3 q.h.
Humanities	10 s.h. or 15 q.h.
Social Studies	10 s.h. or 15 q.h.
Science and Mathematics	10 s.h. or 15 q.h.

ILLINOIS STATE UNIVERSITY

A transfer student in good standing who has completed an associate degree based on a baccalaureate-oriented sequence who is admitted to the University from a public junior or community college in Illinois shall be considered to have attained junior standing and to have met his General Education requirements.

General Education Requirements are as follows:

Communications	6 semester hours — 9 quarter hours
Social Sciences	12 semester hours — 18 quarter hours
Humanities	14 semester hours — 21 quarter hours
Science and mathematics	12 semester hours — 18 quarter hours
General Education Electives	8 semester hours — 12 quarter hours

MURRAY STATE UNIVERSITY

To transfer a student must have an overall average of 2.00 on a 4.0 scale.

The General Studies Requirements are:

Communications and Humanities..... 18 s.h. or 27 q.h.
English Composition ..... 6 s.h. or 9 q.h.
Literature..... 3 s.h. or 4.5 q.h.
At least 2 areas ..... 9 s.h. or 13.5 q.h.
Science and Mathematics ..... 12 s.h. or 18 q.h.
Must include at least two areas.
Social Science ..... 12 s.h. or 18 q.h.
Must include at least 2 areas.
Electives..... 3 s.h. or 4.5 q.h.

NORTHERN ILLINOIS UNIVERSITY

To be eligible for admission a transfer student must have an overall average of 2.00 on a 4.0 scale in all college work attempted.

General Education Requirements are as follows:

Humanities ..... 15 s.h. or 22.5 q.h.
Requires 3 areas, including English Composition and Speech
Science and Mathematics ..... 11-12 s.h. or 16.5-18 q.h.
Must include 3 areas: a laboratory sequence, a survey sequence and mathematics.
Social Sciences ..... 9 s.h. or 13.5 q.h.
Must be earned in at least 2 departments.

SANGAMON STATE UNIVERSITY

The general admission policy of the University is to admit qualified graduates of community and junior colleges holding an Associate of Arts or Associate of Science degree. Nongraduates may transfer if they have accumulated 90 quarter hours of satisfactory college work with at least a "C" or 2.00 grade point average based on a four-point system. Graduates with an Associate of Applied Science degree may be admitted if over 45 quarter hours of credit are in the general education areas of social sciences, humanities and sciences.

SOUTHEAST MISSOURI STATE COLLEGE

General Education Requirements:

Communications and Humanities..... 16 s.h. or 24 q.h.
Includes English Composition, Literature, Psychology, Speech, Art, Music, Philosophy, Journalism, Foreign Language

Mathematical and Natural Sciences..8-11 s.h. or 12-16.5 q.h.
Must include a course from each area.
Social Studies.....14 s.h. or 21 q.h.
Includes U. S. History and Government.
Physical Education.....4 s.h. or 6 q.h.

SOUTHERN ILLINOIS UNIVERSITY

A transfer student with an Associate degree in a baccalaureate oriented program from a regionally accredited institution will be accepted as meeting all of the general education requirements. The degree will not, however, waive specific academic unit or major and minor requirements which may be offered via General Studies courses. A transfer student without this degree must have an overall 2.00 point average on a 4.00 point system and must meet the following General Studies requirements:

Area A: Physical and Biological Sciences (GSA) — 16 quarter hours.
A minimum of three specific departments must be completed within this specific sixteen hour block.
Area B: Social Studies (GSB) — 16 quarter hours.
In a minimum of 3 specific departments.
Area C: Humanities (GSC) — 16 quarter hours.
A minimum of three different departments must be represented.
Area D: Oral and Written Communication (GSD) — 14 quarter hours.
Includes English Composition, speech and 5 hours of mathematics.
Area E: Health and Physical Education (GSE) — 5 quarter hours.

UNIVERSITY OF ILLINOIS

For admission, junior college transfers must have completed at least 60 semester hours or 90 quarter hours of college credit with an overall average of 2.25 on a 4.0 scale. The curriculum requirements depend on the course outline of each college within the university.

WESTERN ILLINOIS UNIVERSITY

To be eligible for admission, a transfer student must have at least 45 quarter hours credit with an overall average of 2.00 on a 4.00 scale.

The basic general education requirements are as follows:

Communications	13 quarter hours
Science and Mathematics	16 quarter hours
Social Sciences	16 quarter hours
Humanities	16 quarter hours
Health and Physical Education	
Education majors	6 quarter hours
Non-education majors	2 quarter hours