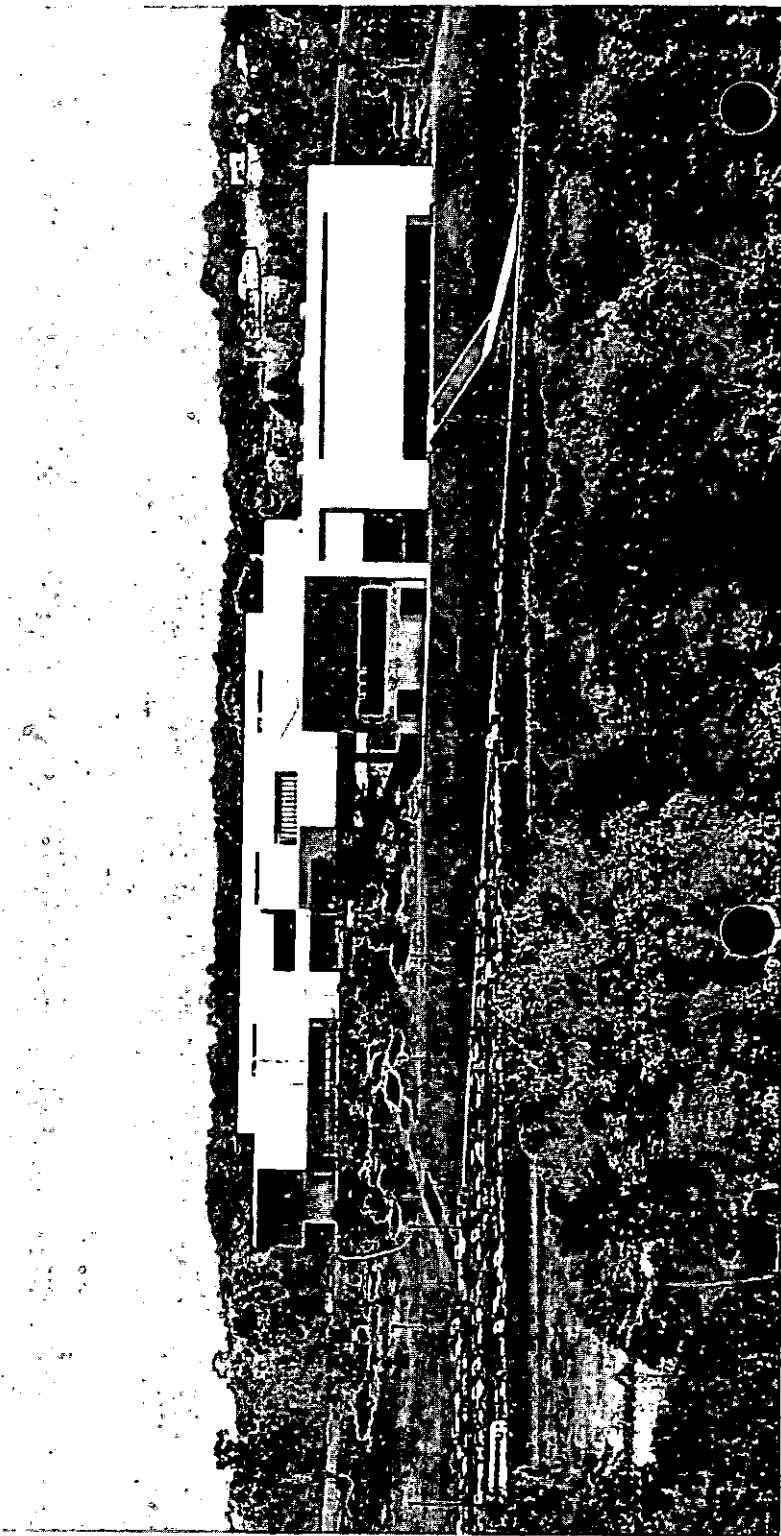


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## THE CURRICULUM: COURSES OF INSTRUCTION

The first digit of a course number refers to academic level of the course. courses numbered 100 are designated primarily for freshmen; courses numbered 200 for sophomores.

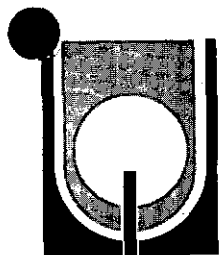
The third digit of a course number refers to the number of semester hours credit given for that course. Thus, History 124 earns for the student four hours credit.

The College reserves the privilege of withdrawing any course for which there is not sufficient enrollment.

### COURSE DESCRIPTIONS

#### ACCOUNTING

- Acc 103**      **APPLIED ACCOUNTING**      **3 hours**  
This course is designed to give the student extensive practice in working with basic accounts, records, and statements.  
*Prerequisite: none*
- Acc 113**      **ACCOUNTING I**      **3 hours**  
Basic principles and procedures of business accounting, including debits and credits, journals and ledgers, the balance sheet, and income statements.  
*Prerequisite: none*
- Acc 123**      **ACCOUNTING II**      **3 hours**  
A continuation of the study of accounting principles, including cash and investments, receivables, inventory, fixed assets, liabilities, accounting principles, manufacturing operations, and the analysis of financial data.  
*Prerequisite: Acc 113*
- Acc 133**      **INTERMEDIATE ACCOUNTING I**      **3 hours**  
A review of the concepts and principles underlying accounting and their application in the accounting process. Valuation procedures and problems are considered for each class of the assets, of the balance sheet and their related effect upon income measurement.  
*Prerequisite: Acc 123*
- Acc 143**      **INTERMEDIATE ACCOUNTING II**      **3 hours**  
A continuation of Intermediate Accounting. Valuation procedures and problems are considered for each class of the liabilities and equity section of the balance sheets and their related effect upon income measurement. Various forms of financial statement analysis are also studied along with the opinions of the Accounting Principles Board.  
*Prerequisite: Acc 133*



# **courses of instruction**

## **THE CURRICULUM**

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- Acc 231** ✓ **TAX LAWS AND REPORTING PROCEDURES** **1 hour**  
 Laws, procedures, forms and current regulations relating to payroll and sales taxes.  
*Prerequisite: Consent of the instructor*
- Acc 243** ✓ **TAX ACCOUNTING** **3 hours**  
 A comprehensive study of the Federal tax structure and the application of the principles involved to specific individual and business tax problems.  
*Prerequisite: Acc 123 or consent of the instructor*
- Acc 253** ✓ **COST ACCOUNTING** **3 hours**  
 A study of the job order, process and standard cost systems and the flow of costs in the accounting for materials, labor and overhead in the manufacturing process.  
*Prerequisite: Acc 123 or consent of the instructor*
- Acc 263** ✓ **AUDITING** **3 hours**  
 The accounting investigative techniques as they apply to the financial statements and internal control, including the procedures for preparation of working papers and the writing of the audit report.  
*Prerequisite: Acc 123 or consent of the instructor*

## **AIR CONDITIONING: REFRIGERATION AND HEATING**

- ARH 115** ✓ **AIR CONDITIONING: REFRIGERATION AND HEATING I** **15 hours**  
 Air conditioning: refrigeration and heating training is the preparation of students to become technicians, who, in the course of their future employment will be required to install, maintain, and repair equipment used in domestic, commercial, and industrial applications for human comfort and/or processes. The student will spend 4 hours a day, five days per week in the training program.  
*Prerequisite: none*
- ARH 215** ✓ **AIR CONDITIONING: REFRIGERATION AND HEATING II** **15 hours**  
 A continuation of ARH 115.  
*Prerequisite: ARH 115*
- ARH 291** **AIR CONDITIONING: REFRIGERATION AND HEATING PLACEMENT** **1 hour**  
 A course designed to assist Air Conditioning: Refrigeration and Heating students in obtaining jobs suitable to their training and interests.  
*Prerequisite: Consent of the instructor*

## ART

- Art 102 CRAFTS 2 hours**  
 Course is designed to allow the student to explore a number of different craft areas such as: mosaics, basketry, printmaking, etc. Individual projects will be developed in those areas in which the student has special interests. The course is especially well suited to teachers, parents, and other non-art majors who are interested in developing creative hobbies.  
*Prerequisite: none*
- Art 103 COMPOSITION 3 hours**  
 Representational, abstract, non-objective drawings and paintings; space and volume relations; movement and direction of planes in development of visual units of design and their integration in the whole organization; introduction to perspective and light and shade.  
*Prerequisite: none*
- Art 113 ART APPRECIATION I 3 hours**  
 A general survey of the artistic activities of man from prehistoric to modern times. Slides and 16mm films are used in conjunction with the course.  
*Prerequisite: none*
- Art 123 ART APPRECIATION II 3 hours**  
 A survey of art history from 1900 to the present, with some studio applications. Selected art movements and techniques will be discussed.  
*Prerequisite: none*
- Art 133 INTRODUCTION TO ART 3 hours**  
 An introduction to art through various media and techniques such as design, drawing, printmaking, color, shading, sculpture, space relationship. Media include ink, cray-pas, plaster, and watercolor. This is a survey course and not recommended for art majors.  
*Prerequisite: none*
- Art 143 SCULPTURE I 3 hours**  
 An introduction to sculpture through the use of various media: cardboard sculpture, plastic sculpture, and wood or stone sculpture. Some drawing and research of sculptors and sculpture techniques is required.  
*Prerequisite: none*
- Art 153 DRAWING I 3 hours**  
 An introduction to drawing as an approach to space and form through a variety of methods, both traditional and contemporary. Emphasis will be placed upon analytical seeing as well as familiarization with and control of drawing material. Introduction to perspective and light and dark shades; some texture and other methods will be used for creative drawings.  
*Prerequisite: Art 103 or consent of the instructor*

Art 163

**DRAWING II**

**3 hours**

Drawing of the human figure in charcoal, crayon, ink, and other media. Representational, abstract, and non-objective drawings; space and volume relations; movement and direction of planes in space; development of visual units of design and their integration in the whole organization.

*Prerequisite: Art 153 or consent of the instructor*

Art 173

**PAINTING I**

**3 hours**

Introduction to the material and techniques of oil and acrylic painting. Intended to develop technical and expressive abilities. Forms, colors, line, texture, and organization of painting will be studied. Practical application of framing techniques.

*Prerequisite: Art 153 or 163 or consent of the instructor*

Art 183

**PAINTING II**

**3 hours**

Theory and practice of painting using oil and acrylics. Development of form through color and appropriate emphasis on texture. Objective appearance conditioned to meet the requirements of a controlled composition and aesthetic concept. While working with a variety of media, the student will be encouraged to emphasize individual expression.

*Prerequisite: Art 173*

Art 193

**COMMERCIAL ART I**

**3 hours**

Exploration of the basic elements of design as related to commercial art. The application of elements is stimulated by a wide variety of projects. Projects will stress the development of ideas rather than the execution of media.

*Prerequisite: none*

Art 203

**COMMERCIAL ART II**

**3 hours**

Utilization of the principles of design applied to the graphic media. Exploration of the basic elements of design as related to commercial art. The application of elements is stimulated by a wide variety of projects. Projects will stress the development of ideas rather than the execution of media.

*Prerequisite: none*

Art 213

**SCULPTURE II**

**3 hours**

Examination and analysis of traditional and contemporary sculpture. Sculptural design is related to material and techniques such as clay, wood, stone, plaster, and metal.

*Prerequisite: Art 143 or consent of the instructor*

Art 223

**DESIGN**

**3 hours**

Exploration of space, line, color, shape, and texture as the basic elements in visual expression. The application of elements is stimulated by a wide variety of projects stressing creative ability.

*Prerequisite: Art 103 or consent of the instructor*

**Art 233**

**WATERCOLOR**

**3 hours**

The study of watercolor painting with emphasis upon color and composition and pictorial expression; experimentation with various methods of watercolor painting. Studies will include washes and brush control.

*Prerequisite: Art 103 or consent of the instructor*

**Art 243**

**PRINTMAKING I**

**3 hours**

Lecture and laboratory exercises dealing with history and techniques of printmaking, including the making of prints from material such as wood blocks, cardboard, and linoleum by using surface printing techniques.

*Prerequisite: Art 133 or consent of the instructor*

**Art 263**

**PRINTMAKING II**

**3 hours**

Laboratory exercises dealing with the techniques of lithography, silkscreen and dry point as a fine printing medium. Emphasis is on individual exploration with materials.

*Prerequisite: Art 133, or Art 243, or consent of the instructor*

**ART 271**

**DIRECTED STUDIES (HONORS) IN ART**

**1 hour**

The opportunity provides two alternatives. An exceptional art student may pursue: (1) studying or developing independently a specifically prearranged topic or project, within the field of art, (2) develop experience in procedures, processes, and actual presentations of gallery displays.

*Prerequisite: Consent of the instructor*

**Art 273**

**ART FOR THE ELEMENTARY TEACHER**

**3 hours**

Experience with art materials used in the elementary school and a study of the types of art activities related to various age groups.

*Prerequisite: Art 133 or consent of the instructor*





## AUTO MECHANICS

- Auto 113 ELECTRICAL SYSTEMS 3 hours**  
An advanced study of the automobile electrical systems. Beginning with a comprehensive study of direct-current theory, the module directs itself to application of the theory to the understanding of the automobile starting, charging, and ignition systems. Lab and shop work in this module concentrates on trouble-shooting and repair of auto electrical systems and components.  
*Prerequisite: none*
- Auto 122 CARBURETION AND FUEL SYSTEMS 2 hours**  
A detailed study of the principles and theory of carburetion and fuel system on the modern automobile. Includes shop work on overhauling, servicing, and adjustment of fuel system components. Special emphasis is placed on recent changes in fuel system design, manufacture, and servicing due to federal and state air pollution legislation.  
*Prerequisite: none*
- Auto 131 TUNE-UP 1 hour**  
A detailed study of the relationships between the carburetion system, ignition system, and the mechanical parts of the engine. Subsequent shop work will include the use of the "Sun Scope" and analyzer.  
*Prerequisite: Auto 112 and 122*
- Auto 151 SUSPENSION SYSTEMS 1 hour**  
A comprehensive study of coil and leaf-spring type suspension systems and the various configurations of each. Steering and shock absorber designs will also be covered in this module, along with the diagnosis and repair of common steering and suspension components.  
*Prerequisite: none*
- Auto 162 WHEEL ALIGNMENT AND BALANCE 2 hours**  
Study in this module will concentrate on tire and tread design, tire and wheel assembly balance, and front-end alignment procedures. Shop work will include tire repair, diagnosis of wheel alignment and balance problems from tire wear patterns, and adjustment and repair of suspension systems, and operation of wheel alignment and balancing equipment.  
*Prerequisite: Auto 151*
- Auto 172 BRAKES 2 hours**  
The study of hydraulic brake systems, both power-assisted and non-power assisted. Disc and drum brake systems will both be covered in detail, along with brake repair procedures. Shop work will include brake servicing and replacement procedures, disc and drum service to hydraulic master and wheel cylinder assemblies.  
*Prerequisite: none*

**Auto 182**

**AUTOMATIC TRANSMISSIONS**

**2 hours**

A detailed study of the theory, operation, and repair of automatic transmissions. This module will begin with a complete study of planetary gear trains and their operation, hydraulic theory as applied to fluid couplings, and clutch theory and operation. Subsequent shop work will concentrate on removal, disassembly, overhaul, and replacement of automatic transmission assemblies. Special emphasis will be placed on diagnosis of automatic transmission problems.

*Prerequisite: none*

**Auto 191**

**STANDARD TRANSMISSIONS**

**1 hour**

A study of three and four speed standard transmissions including clutches and clutch designs. Shop work will concentrate on clutch replacement, shift linkage design and adjustments, and transmissions disassembly and repair procedures. The theory of gear design and ratios will be studied in great detail.

*Prerequisite: none*

**Auto 201**

**DRIVE LINES AND DIFFERENTIAL**

**1 hour**

A study of the transmission of power from the transmission to the wheels of the modern vehicle. Shop work will concentrate on drive shaft service, adjustment and replacement of differential bearings and parts (including limited slip differentials), and diagnosis of vibration and axle noise problems.

*Prerequisite: none*

**Auto 211**

**AIR CONDITIONING**

**1 hour**

Beginning with a study of refrigeration and cooling theory, this module will concentrate on the diagnosis and repair of common automotive air conditioning problems. Shop work will include the checking and charging of air conditioning systems, as well as leak-detection procedures and correction of common compressor problems.

*Prerequisite: none*

**Auto 232**

**ENGINES**

**2 hours**

A detailed study of the gasoline-powered internal-combustion engine. Emphasis will be placed on procedures for repair and replacement of engine parts and components, engine cooling systems, and valve train assemblies. Engine overhaul and machine procedures will be discussed in detail, and shop work will include the disassembly, measuring, and reassembly of engine components.

*Prerequisite: Auto 112 and 122*

**Auto 291**

**AUTO MECHANICS PLACEMENT**

**1 hour**

A course designed to assist auto mechanics students in obtaining jobs suitable to their training and interests.

*Prerequisite: none*

## BIOLOGICAL SCIENCE

102

### PERSONAL AND COMMUNITY HYGIENE

2 hours

A general course designed to develop proper attitudes and practices which will contribute to the fine art of living. Health problems which require community action are given consideration.

*Prerequisite: none*

Bio 115

### GENERAL BIOLOGY

5 hours

An introductory course involving fundamental biological principles of both plant and animal life. It is designed to be used as a general education requirement. Not open to students with credit in botany or zoology or students expecting to major in the biological sciences. Three hours of lecture and two two-hour laboratory periods per week.

*This course is intended as a general education course and not recommended for a life science major.*

*Prerequisite: none*

Bio 145

### GENERAL ZOOLOGY

5 hours

A survey of the animal kingdom, animal structure, life processes, development, ecology, and the evolution of animals. Laboratory will include structure and taxonomic relationships as shown by dissection of representatives of the various animal groups. Three one-hour lecture recitation periods and two two-hour laboratory periods per week.

*This course should be taken by people majoring in the life sciences.*

*Prerequisite: none*

Bio 155

### GENERAL BOTANY

5 hours

An introduction to the plant kingdom, structure, physiology, life histories, economic importances, and the evolution of plants. Laboratory will include experimentation and observation to verify and enhance classroom lecture and recitation. Three one-hour lecture recitation periods and two two-hour laboratory periods per week.

*Prerequisite: Bio 115 or Bio 145*

Bio 202

### GENETICS

2 hours

A study of the principles of heredity and biological evolution as applied to plants and animals.

*Prerequisite: either Bio 115, Bio 145 or Bio 155*

Bio 225

### FIELD BIOLOGY

5 hours

An introduction to structure and functions of ecosystems. Abiotic and biotic interrelationships; energetics; population dynamics; community structure and regulation; biogeography and succession. Provides a background in field techniques. Three one-hour lecture recitation periods and two two-hour laboratory periods per week.

*Prerequisite: none (Bio 115 or Bio 145 is recommended)*

**Bio 234**

**HUMAN ANATOMY AND PHYSIOLOGY I**

**4 hours**

This is a two semester course where gross micro and macroscopic anatomy is studied while the function of the respective structures is studied. The normal state is studied and the abnormal state is studied only to explain points in the normal state of the human body. The first semester includes integument, skeletal, muscular and nervous systems. Two lectures and two two-hour labs per week.

*Prerequisite: Bio 115 or Bio 145. College courses in Math and Chemistry are useful.*

**Bio 235**

**HUMAN ANATOMY AND PHYSIOLOGY II**

**5 hours**

Human Anatomy and Physiology II is part II of a two semester study. Systems studied are digestive, respiratory, circulatory, and urogenital. Sequencing of I and II is not important. The student may take Human Anatomy and Physiology II before I. Two lectures and three two-hour labs per week.

*Prerequisite: Bio 115 or Bio 145. College courses in Math and Chemistry are useful.*

**Bio 245**

**COMPARATIVE ANATOMY**

**5 hours**

The comparative anatomy of vertebrate animals, including both embryological development and adult structure. Dissection includes a representative from each major vertebrate class. Includes classification of vertebrates, embryology, skeleton, muscles, coelome, digestive and respiratory systems, circulatory system, urinogenital system, and nervous system. Two lectures and six hours of laboratory per week.

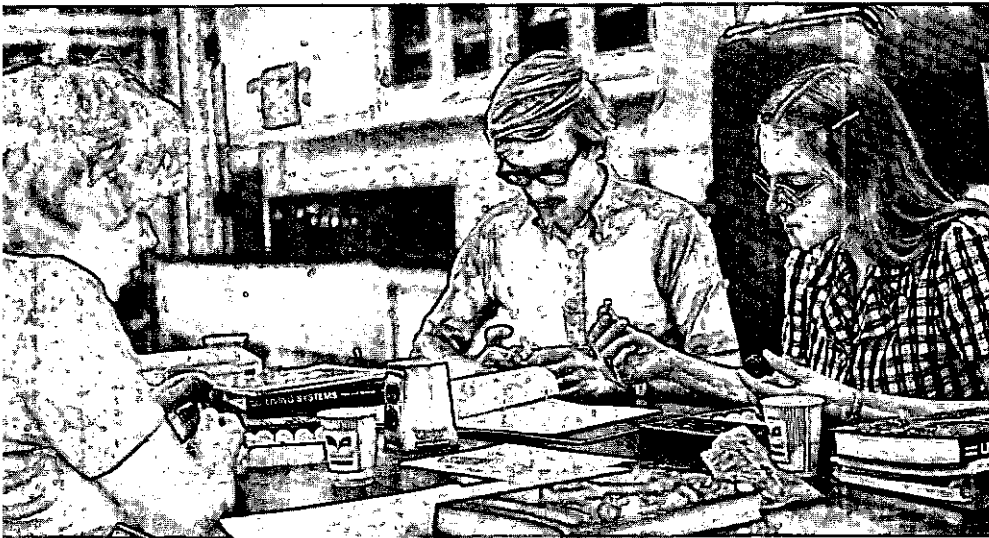
*Prerequisite: Bio 145 or consent of the instructor.*

**Bio 271,  
281, 291**

**DIRECTED STUDIES (HONORS)  
IN BIOLOGY**

**1 hour**

The biology internship provides two alternatives. A student may pursue: (1) investigation or studying independently a specially prearranged topic, within the field of biological science, (2) assisting



primarily in the laboratory, or in lecture when peer groupings are being utilized.

*Prerequisite: Consent of the instructor.*

### **PRACTICUM IN BIOLOGY**

**2 hours**

Biology Practicum provides two types of learning experiences: (1) assisting students in laboratory sessions of life science courses, and (2) participating in a weekly biology topics seminar. One seminar period and four hours of laboratory assisting per week.

*Prerequisite: Successful completion of course that student will assist in, or consent of instructor.*

## **BUILDING AND SITE MAINTENANCE**

**B&SM 115**

### **BUILDING AND SITE MAINTENANCE I**

**15 hours**

The Building and Site Maintenance program at East Central Junior College is designed to train regular students and adults for positions with many agencies. The program is intended to develop the necessary skills to develop the site, maintain the building and its equipment, diagnose basic systems and equipment malfunctions, accomplish normal repairs and initiate routine alteration or modification of the building and its systems. The student will spend 4½ hours a day, five days per week in the training program. All classes are scheduled in the morning to enable a student to concurrently hold employment.

*Prerequisite: none*

**B&SM 215**

### **BUILDING AND SITE MAINTENANCE II**

**15 hours**

A continuation of B&SM 115.

*Prerequisite: B&SM 115*

**B&SM 291**

### **BUILDING AND SITE MAINTENANCE PLACEMENT**

**1 hour**

A course designed to assist building and site maintenance students in obtaining jobs suitable to their training and interests.

*Prerequisite: Consent of the instructor*

## **BUSINESS MID-MANAGEMENT**

**Bus 103**

### **INTRODUCTION TO BUSINESS**

**3 hours**

A survey course designed to give the student a general knowledge of the modern business world, and a better basis for choosing concentrated business offerings.

*Prerequisite: none*

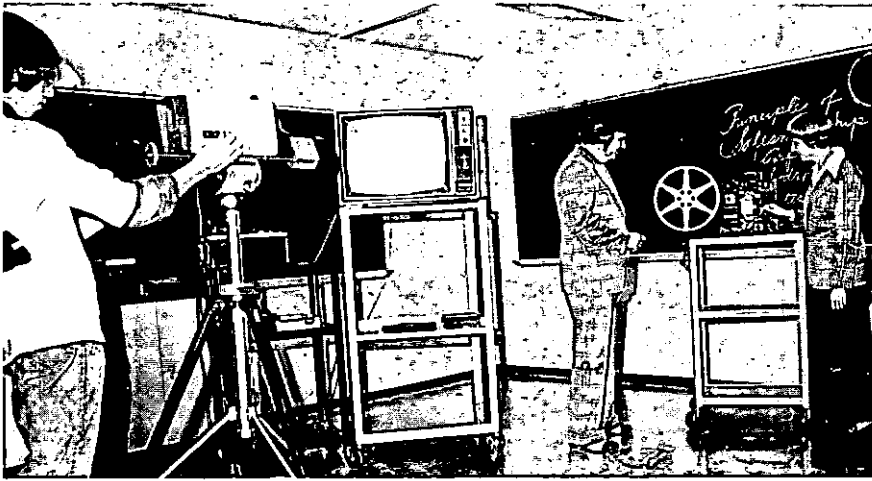
**Bus M 113**

### **PRINCIPLES OF MARKETING**

**3 hours**

This course is designed to introduce the student to the managerial area of marketing. Although consumer and institutional behavior patterns and the overall role of marketing in the economy are covered, the major emphasis will be concerned with the types of problems confronting those involved in marketing management.

*Prerequisite: none*



**Bus M 123 · SALESMANSHIP 3 hours**

A study of proper sales techniques for presenting and selling merchandise to the consumer. Methods of organization, training, and management of the sales force.

*Prerequisite: none*

**Bus M 133 · ADVERTISING AND DISPLAY 3 hours**

Aspects of advertising with emphasis on the development of a proper marketing mix, the planning of advertising strategy, the management of personnel, the control of advertising operations, advertising research, and the development of display plans. Each student will be assigned an advertising project concerned with a marketing plan, advertising strategy, and an advertising budget.

*Prerequisite: none*

**Bus M 143 ✓ PRINCIPLES OF FINANCE 3 hours**

How the business firm gets and uses funds it needs to carry on its operation. Topics include financing with stocks, financing with bonds, financing working capital requirements, businesses and banks, business failures and reorganization.

*Prerequisite: none*

**Bus M 201 · BUSINESS MANAGEMENT PLACEMENT 1 hour**

A course designed to assist business management students in obtaining jobs suitable to their training and interests.

*Prerequisite: none*

**Bus M 233 FUNDAMENTALS OF MANAGEMENT 3 hours**

An evaluation and comparison of private and public personnel practices and techniques of recruiting, selecting, transferring, promoting, classifying, and training workers.

*Prerequisite: none*

**Bus M 251**

**DISPLAY PROJECT**

**1 hour**

A study of the types and the role of visual merchandising in the retail store including creation, color and principles of design, incorporating actual experience in preparing retail displays.

*Prerequisite: none*

**Bus M 271,  
272, 273, 274**

**DIRECTED STUDIES**

**1-4 hours**

Course content and hours arranged by instructor.

*Prerequisite: Consent of the instructor*

**Bus M 283**

**BUSINESS LAW**

**3 hours**

A study of those areas of the law which affect most businesses; sales and credit, contracts, insurance, agency and employment, commercial paper, and personal property and bailments.

*Prerequisite: none*

**Bus M 291,  
292, 293**

**INTERNSHIP**

**1-3 hours**

This phase of the student's business management training will include actual work experience in a retail business with periodic discussions of the problems involved in applying classroom principles to the job.

*Prerequisite: Enrollment in Business Management Program and consent of the instructor*

**CHEMISTRY**

**Chem 105**

**INTRODUCTION TO CHEMISTRY**

**5 hours**

Introduction to the basic principles of chemistry, including inorganic, analytical, physical, and organic chemistry. Environmental and practical applications are emphasized with one lab session per week being used for small group discussions of current topics. Three hours of lecture and two two-hour laboratories per week.

This course is designed for the student with no background in chemistry.

*Prerequisite: none*

**Chem 115**

**GENERAL CHEMISTRY I**

**5 hours**

Topics of study include atomic and molecular structure, bonding, chemical equations, stoichiometry, gases, solutions, and an introduction to organic chemistry. Three one-hour lecture periods and two two-hour laboratory periods per week.

*Prerequisite: A satisfactory score on the MMPT and either Chem 105 or high school chemistry.*

**Chem 125**

**GENERAL CHEMISTRY II**

**5 hours**

A continuation of Chem 115, including chemical equilibria, complexions, thermodynamics, oxidation-reduction reactions, and qualitative analysis. Three one-hour lecture and recitation periods and two two-hour laboratory periods per week.

*Prerequisite: Chem 115*

**Chem 234, 235**      **QUANTITATIVE ANALYSIS**      **4-5 hours**  
 A study of the fundamental principles of quantitative analytical chemistry, including gravimetric, volumetric, and spectrophotometric determinations. Two hours lecture and two or three three-hour laboratory periods per week.  
*Prerequisite: Chem 125*

**Chem 245**      **ORGANIC AND BIOLOGICAL CHEMISTRY**      **5 hours**  
 A survey of major topics of organic and biological chemistry. Including aliphatic and aromatic hydrocarbons, carbohydrates, lipids, amino acids, the vitamins, and steroids. The course related chemical applications to human metabolism, agriculture, home economics, and medical technology programs. Four hours lecture and three hours laboratory each week.  
*Prerequisite: Chem 105 or Chem 115*

**Chem 271, 272, 273, 274**      **DIRECTED STUDIES IN CHEMISTRY (HONORS)**      **1-4 hours**  
 The student enrolled for directed studies has two alternatives: (1) investigate a specific topic within the field of chemistry, (2) assist in the laboratory, stockroom, or with individualized instruction under the supervision of an instructor.  
*Prerequisite: Consent of the instructor*

## DATA PROCESSING

**DP 103**      **INTRODUCTION TO COMPUTERS**      **3 hours**  
 An introduction to basic theory and methodology of electronic data processing.  
*Prerequisite: none*

**DP 112, 113**      **COMPUTER PROGRAMMING-FORTRAN**      **2-3 hours**  
 Basic programming techniques and computer solution of programs using FORTRAN language.  
*Prerequisite: Math 163*

## DRAFTING AND DESIGN TECHNOLOGY

**Draft 113**      **ENGINEERING DRAWING**      **3 hours**  
 This course is designed to give the student a working knowledge of fundamental drawing practices and the geometric relationships of points, lines and planes in space. Areas covered include the techniques of lettering, sketching, instrumental drawing of mechanical parts, sectional and auxiliary views and conventional drafting practices.  
*Prerequisite: none*

**Draft 115**      **TECHNICAL PHYSICS**      **5 hours**  
 Three hours of lecture and two lab periods per week. A study of mechanics, heat, sound, light electricity, and physical properties of



matter. This is a non-calculus course which features problem solving and laboratory work.

*Prerequisite: Either Math 143, 153, or satisfactory score on the MMPT*

**Draft 123**      **DESCRIPTIVE GEOMETRY**      **3 hours**

A study of the graphic analysis and solution of typical three dimensional space problems through the application of the principles of multi-view projections. Fundamental problems are related to points, lines, planes, intersections, and developments of plane and curved surfaces, revolutions, and vector geometry.

*Prerequisite or corequisite: Drafting 113*

**Draft 133, 135**      **ARCHITECTURAL DRAWING**      **3, 5 hours**

This course introduces the fundamental principles of residential design. It includes instruction on materials and methods of construction, design standards and room arrangement. Course emphasis will be given to the development of complete residential plans.

*Prerequisite: Draft 113*

**Draft 145**      **MACHINE DRAWING**      **5 hours**

The student will work in problem solving situations involving the development of drawings of castings, forgings, machinings and sheet metal layout. Also, the methods of making working and assembly drawings will be included, providing depth in the area of machine drawing. Dimensioning will be of primary importance.

*Prerequisite: Draft 113*

**Draft 152**      **MODERN DRAFTING TECHNIQUES**      **2 hours**

This is an exploratory course which has major emphasis on photography, film processing, model building and their industrial applications. Students will participate in development of projects utilizing the latest available industrial techniques.

*Prerequisite: Draft 113*

**Draft 165**      **MATERIALS AND PROCESSES**      **5 hours**

A survey of current engineering materials and the various processes used to shape them. Materials studied include a review of ferrous and nonferrous metals, plastics, rubbers, and ceramics. Emphasis is placed on the advantages and limitations of the various casting, forging, machining, grinding, forming, molding, welding, heat treating and powder metallurgy processes used to shape materials.

*Prerequisite: none*

**Draft 173**      **PRINCIPLES OF POWER**      **3 hours**

Principles of hydraulics and pneumatics fundamental to fluid power design are presented. Other topics include principles of mechanical and electrical powered systems and power system schematics.

*Corequisite: Math 133 or consent of the instructor*

- Draft 203 TECHNICAL ILLUSTRATION 3 hours**  
 A course to develop the understanding and skills to produce technical illustrations in the many forms required by industry. Included will be an intensive study of the pictorial forms of isometric, dimetric, trimetric, oblique and perspective drawing, and the methods and media used in creating illustration.  
*Prerequisite: Draft 113*
- Draft 233 CIVIL DRAWING 3 hours**  
 A course encompassing the methods and conventions of engineering graphics as they are practiced in the civil engineering field and its allied industries. Primary focus will be on drawing and detailing civil projects such as highway projects, bridges, land division and subdivision, and municipal utility facilities.  
*Prerequisite: Draft 113*
- Draft 243 MACHINE DESIGN 3 hours**  
 This course is designed to bring together in practical applications the skill and knowledge developed in courses covering mechanics and drafting. Instruction provided will permit logical organization of facts for economical solution of machine design problems. Emphasis is placed on standardization, use of stock parts, and using manufacturers' catalogs.  
*Prerequisite: Draft 145*
- Draft 253 STATICS AND STRENGTH OF MATERIALS 3 hours**  
 A study of statics and strength of materials as applied to structures, beam theory, beam design, and theory of column formulae. Includes study of stress and strain experienced by machine parts and structural members. Emphasis is placed on applications and problem solving.  
*Prerequisite: Math 143 or consent of the instructor*
- Draft 263 TOOL AND DIE DESIGN 3 hours**  
 Lectures, classroom discussions and actual drawing board work are combined to give the student knowledge necessary to design the less complicated tools used in modern manufacturing. The work consists of laying out simple jigs, fixtures, cutting tools, gauges, and dies. Mass production methods are discussed so that this knowledge may be applied in the practical work of tool designing.  
*Prerequisite: Draft 145*
- Draft 271 DIRECTED STUDIES IN DRAFTING DESIGN 1 hour**  
 Investigation in depth of a specific industrial problem or actual experience in related office practices.  
*Prerequisite: Consent of the instructor*

**Draft 273** / **STRUCTURAL DRAWING** **3 hours**  
 The course concentrates on detailing and delineating the structural systems encountered in architectural and civil construction. Systems included will be those based on materials including wood, steel and concrete components. Shop drawings and erection drawings will be covered.  
*Prerequisite: Draft 113 and 253*

**Draft 291** / **DRAFTING PLACEMENT** **1 hour**  
 A course designed to assist drafting students in obtaining jobs suitable to their training and interests.  
*Prerequisite: none*

## **ECONOMICS**

**Econ 213** / **PRINCIPLES OF MACRO-ECONOMICS** **3 hours**  
 An introduction to the total level of economic activity—the rate of employment, production, output, income. Topics include unemployment, inflation, the banking system and monetary policy, government spending and fiscal policy, international economics.  
*Prerequisite: none*

**Econ 223** / **PRINCIPLES OF MICRO-ECONOMICS** **3 hours**  
 An introduction to how prices are determined. Topics include how prices are set in markets of varying degrees of competition; how income is distributed; wages, unions, profits, and rent.  
*Prerequisite: none*

**Econ 271, 272, 273, 274** / **DIRECTED STUDIES IN ECONOMICS** **1-4 hours**  
 Course content and hours arranged by instructor.  
*Prerequisite: Consent of the instructor.*

## **EDUCATION**

**Ed 101** / **CAREER DECISIONS** **1 hour**  
 A course designed to assist students in self inventory, to help the student see and understand his interests, aspirations, needs, personal assets and liabilities. Students will gain experience in exploring the world of work, finding information on jobs, and learning to use that information. Students will learn how to make decisions regarding themselves and their relationship to the world of work.  
*Prerequisite: none*

**Ed 112, 113** / **PERSPECTIVES IN EDUCATION** **2, 3 hours**  
 An introduction to the many facets of American education designed to give the student accurate information about education and to

provide him with opportunities to determine his interest and aptitude for pursuing an educational profession.

*Prerequisite: none*

**Ed 223**

**EDUCATIONAL PSYCHOLOGY**

**3 hours**

A study of theories and facts concerning human behavior in such areas as motivation, learning, and social development, as applied to the educational process.

*Prerequisite: Psychology 113 or consent of the instructor*

## **ENGINEERING**

**Engr 113**

**ENGINEERING DRAWING  
AND DESCRIPTIVE GEOMETRY**

**3 hours**

A study of the graphic analysis and solution of typical three dimensional space problems through the application of the principles of multi-view projections. Fundamental problems are related to points, lines, planes, intersections, and developments of plane and curved surfaces, revolutions, and vector geometry.

*Prerequisite: none*

**Engr 203**

**ENGINEERING MECHANICS—STATICS**

**3 hours**

Application of the principles of mechanics to engineering problems of equilibrium. Topics include resultants, equilibrium, friction, trusses, center of gravity, and moment of inertia.

*Prerequisite: Phys 215*

*Corequisite: Math 225*

## **ENGLISH**

**Eng 001**

**STUDY SKILLS I—LISTENING AND NOTE-TAKING**

**1 hour**

A programmed course which develops skills in listening and note-taking. The program presents a series of exercises which provide practice in listening to spoken information and in taking notes and answering questions on the material heard.

*Prerequisite: none*

**Eng 002**

**DEVELOPMENTAL READING I**

**2 hours**

A developmental course in reading, designed for students whose reading level is too low for college work. Comprehension, vocabulary, and phonetics are stressed.

*Prerequisite: none*

**Eng 011**

**STUDY SKILLS—LIBRARY SKILLS**

**1 hour**

A self-contained course designed to introduce the student to the library, making it possible for him to use its resources effectively.

*Prerequisite: none*

<b>Eng 102</b>	<b>DEVELOPMENTAL READING II</b>	<b>2 hours</b>
	A self-contained course in reading improvement stressing comprehension and vocabulary development while emphasizing speed. The student uses a rateometer to build speed and answers questions to measure comprehension of material read at particular speeds.	
	<i>Prerequisite: none</i>	
<b>Eng 105</b>	<b>DEVELOPMENTAL ENGLISH</b>	<b>5 hours</b>
	An individualized, self-paced course covering grammar and language usage, reading, vocabulary, and spelling. This course will fulfill the English requirement for the technical education student or will prepare an A.A. student to enter English 123.	
	<i>Prerequisite: none</i>	
<b>Eng 111</b>	<b>STUDY SKILLS III—SYSTEMS OF STUDY</b>	<b>1 hour</b>
	A self-contained course designed to orient the student to college, emphasizing such basic study skills as listening and note-taking, time-scheduling, preparing for and taking examinations, using the library, writing a term paper, and studying science and mathematics.	
	<i>Prerequisite: none</i>	
<b>Eng 123</b>	<b>ENGLISH COMPOSITION I</b>	<b>3 hours</b>
	A course dealing with the principles of composition including rhetoric, grammar, and usage. The course emphasizes the adequate development of ideas through the use of various rhetorical patterns. Research techniques are taught.	
	<i>Prerequisite: Eng 105 or demonstrated proficiency on the MCET and on a writing sample</i>	
<b>Eng 123H</b>	<b>ENGLISH COMPOSITION (HONORS)</b>	<b>3-6 hours</b>
	An intensified composition course open to freshmen who qualify as evidenced by their high school ranks, placement test scores, and a writing sample. The student who receives a grade of A or B will receive six hours credit in composition and will not be required to take English 133 or its equivalent; however the student will be required to take a literature course to fulfill the English requirement.	
	<i>Prerequisite: Demonstrated high proficiency on the MCET and on a writing sample.</i>	
<b>Eng 133</b>	<b>ENGLISH COMPOSITION II</b>	<b>3 hours</b>
	A second course in composition which provides practice in writing longer units of exposition including argumentation and critical papers. Some sections will offer topical approaches: e.g. the literature of rural America, satire and humor.	
	<i>Prerequisite: Eng 123</i>	
<b>Eng 143</b>	<b>TECHNICAL WRITING</b>	<b>3 hours</b>
	Introduction to the practical aspects of preparing reports. The emphasis is on the techniques of collecting and presenting scientific	

data by means of formal and informal reports. Also included are other elements of communication concerning science and industry.

*Prerequisite: One previous English course*

**Eng 153 POETRY 3 hours**  
A study of literature concentrating on the forms, techniques, and themes of poetry; emphasis is placed on analysis and interpretation.  
*Prerequisite: Eng 105 or Eng 123 or consent of the instructor*

**Eng 163 FICTION 3 hours**  
A study of literature concentrating on the forms and themes of prose fiction. The course includes the study of novels as well as short stories.  
*Prerequisite: Eng 105 or Eng 123 or consent of the instructor*

**Eng 173 DRAMA 3 hours**  
A study of the forms and techniques of drama through reading and discussing plays destined for the theater. Film and television drama will also be considered.  
*Prerequisite: Eng 105 or Eng 123 or consent of the instructor*

**Eng 183 FILM 3 hours**  
Film is a humanities course which will deal with the motion picture as a serious art form and social force in society. Selected films will be analyzed with respect to aesthetics, production methods and social significance.  
*Prerequisite: Eng 105 or Eng 123 or consent of the instructor*

**Eng 193 CHILDREN'S LITERATURE 3 hours**  
A study of children's literature from pre-school to sixth grade to acquaint the student with the best forms of literature for children and to develop standards of judgment in the selection of reading materials for children.  
*Recommended for elementary education majors.*  
*Prerequisites: Eng 123*

**Eng 203 ENGLISH GRAMMAR 3 hours**  
A detailed study of current English grammar and usage. Particular attention is given to problems that teachers might have in teaching English in the elementary or secondary school. Recommended for all elementary education majors, teachers' aides, and English majors.  
*Prerequisite: Grade of A or B in Eng 105, Eng 123 or consent of the instructor*

**Eng 213 ENGLISH LIFE AND LITERATURE I 3 hours**  
A survey of English literature from the Anglo-Saxon period through the Age of Reason.  
*Prerequisite: Eng 123 and sophomore standing, or consent of the instructor*

Eng 223

**ENGLISH LIFE AND LITERATURE II**

**3 hours**

A survey of English literature from the Romantic Period to the Twentieth Century.

*Prerequisite: Eng 123 and sophomore standing, or consent of the instructor*

Eng 233

**AMERICAN LITERATURE I**

**3 hours**

A survey of American Literature from the colonial period up to the Civil War.

*Prerequisite: Eng 123 and sophomore standing, or consent of the instructor*

Eng 243

**AMERICAN LITERATURE II**

**3 hours**

A survey of American Literature from the Civil War to the present.

*Prerequisite: Eng 123 and sophomore standing, or consent of the instructor*

Eng 253

**CREATIVE WRITING**

**3 hours**

A course in imaginative writing involving student production of poems, stories, and plays.

*Prerequisite: Eng 105 or Eng 123 or consent of the instructor*

Eng 271, 272,  
273, 274

**DIRECTED STUDIES  
IN LITERATURE**

**1-4 hours**

Intensive study of various movements, themes, genres, or authors in American or English literature; the study to be determined by instructor and student. The study will include extensive reading, discussion, and an in-depth paper.

*Prerequisite: Consent of the instructor and a grade point average of 3.0 or better in the department*



# FIRE AND FIRE SAFETY TECHNOLOGY

- FST 113**      **BASIC FIRE PROTECTION & ALARM SYSTEMS**      **3 hours**  
A study of modern fire protection, including water supply and distribution systems, fire department organization, housing of equipment and personnel, private fire protection methods, chemical extinguishers, building construction, and a study of the various types of fixed and portable fire detection and alarm systems.  
*Prerequisite: none*
- FST 123**      **ARCHITECTURAL STRUCTURAL REPRESENTATION—MATERIALS**      **3 hours**  
Basic fundamentals of building plan layouts, including the conventional representations, symbols and abbreviations for building materials; methods of showing floor plans, elevation, sections and dimensions.  
*Prerequisite: none*
- FST 133**      **FIRE SCIENCE HYDRAULICS**      **3 hours**  
A study of the mechanics of liquids, particularly as pertains to water flow, hydrants, pumps, standpipes, hoses, nozzles, sprinkler systems, and other facets of liquid mechanics as it is adapted to fire fighting practices.  
*Prerequisite: none; mathematics and physics advisable.*
- FST 143**      **FIRE DEPARTMENT APPARATUS**      **3 hours**  
A study of the description and specifications of the various fire department apparatus found in the modern organization. Special emphasis is given to manufacturer's specifications, analysis of various codes and standards of construction and methods of writing specifications for various pieces of equipment.  
*Prerequisite: none*
- FST 153**      **FIRE DEPARTMENT ORGANIZATION AND SUPERVISION**      **3 hours**  
Instruction in management and administration for the fire service including the functions of management, planning, organizing, directing, controlling, the management cycle, motivation, behavioral science, executive development, educational development and labor relations.  
*Prerequisite: none*
- FST 163**      **TEACHING TECHNIQUES FOR FIRE DEPARTMENT PERSONNEL**      **3 hours**  
The basic theories of learning and methods of instruction are discussed. The use of lectures, demonstrations and visual aids as



applied to the instruction of fire department personnel is illustrated. Practice is provided in the use of lesson plans, visual aids, tests and other teaching devices. Each student's application of a teaching procedure is critically discussed and evaluated.

*Prerequisite: none*

**FST 173 FIRE CHARACTERISTICS 3 hours**

Characteristics and behavior of fire found in ordinary materials such as oils and other combustible chemicals. A review of basic chemistry with emphasis on combustion. Hazards of liquids and gases, special techniques in regard to oxygen supplies.

*Prerequisite: none*

**FST 223 CODES AND ORDINANCES 3 hours**

A detailed study of national, state and local ordinances applicable to the fire service and electrical, plumbing and building codes.

*Prerequisite: none*

**FST 233 PRINCIPLES OF RISK AND INSURANCE 3 hours**

An analysis of the concepts and principles of risk and insurance, emphasizing its nature, degree, distinguishability, and terminology. Also review institutions, fundamentals and structures of insurance contracts and regulation. Introduction to automobile, fire, inland and marine, personal theft and comprehensive, life and workman's compensation.

*Prerequisite: none*

**FST 243 HAZARDOUS MATERIALS 3 hours**

A second semester of the review of basic fundamentals of chemistry used in fire science with emphasis on less common special hazards. Topics covered will include nuclear reactions, ionization, radiation detection equipment, peacetime uses of radioactive materials and control of resulting hazards.

*Prerequisite: none*

**FST 253 INSPECTION AND FIRE PREVENTION 3 hours**

Inspection surveying and mapping procedures associated with the organization and function of fire prevention. Opportunity will be provided to make at least one complete inspection and report on an operation industry.

*Prerequisite: none*

**FST 263 FIRE INVESTIGATION 3 hours**

Methods determining point of origin, path of fire travel and fire causes; motives and methods of fire setting; recognizing and preserving evidence; arson laws, and types of arson fires, court testimony, reports and records.

*Prerequisite: none*

✓ **FST 273**

**FIRE FIGHTING TACTICS  
AND STRATEGY**

**3 hours**

Fundamental strategy and method of attack employed for various fire problems. Principles of fire fighting as applied to small and large scale fire problems and problems that are complex or unique in nature.

*Prerequisite: none*

✓ **FST 283**

**RESCUE PRACTICES AND  
FIRST AID**

**3 hours**

Life saving practices pertaining to the fire company and fire department personnel, manual artificial respiration, inhalators, resuscitators, inspecting, cleaning and sterilizing equipment, and transportation of the injured.

*Prerequisite: none*

**FRENCH**

✓ **Fren 115**

**ELEMENTARY FRENCH I**

**5 hours**

An introductory French course stressing basic language skills: listening comprehension, speaking, reading, and composition. Additional audio-lingual practice in the learning laboratory.

*Prerequisite: none*

✓ **Fren 125**

**ELEMENTARY FRENCH II**

**5 hours**

A continuation of French 115.

*Prerequisite: Fren 115*

✓ **Fren 213**

**FRENCH READINGS**

**3 hours**

Selected readings in prose and poetry along with grammar review, vocabulary building, and additional audio-lingual practice.

*Prerequisite: Fren 115 or consent of the instructor*

**GEOGRAPHY**

✓ **Geog 113**

**GEOGRAPHY OF THE NEW WORLD**

**3 hours**

A regional study of North America, South America, and Australia, with emphasis on the natural resources, political conditions, economy, population, and cultural patterns of each area.

*Prerequisite: none*

✓ **Geog 123**

**GEOGRAPHY OF THE OLD WORLD**

**3 hours**

A regional study of Europe, Africa, and Asia with emphasis on the natural resources, political conditions, economy, population, and cultural patterns of each area.

*Prerequisite: none*

## **GEOLOGY**

**Geol 115**

### **INTRODUCTION TO PHYSICAL GEOLOGY**

**5 hours**

An introductory course in physical geology in which materials of the earth's crust, structures, and geologic features of the surface are studied. Field trips and the laboratory study of common minerals and rocks will be included in the five-hour section. Three lecture and four hours laboratory per week.

*Prerequisite: none*

## **GERMAN**

**Germ 115**

### **ELEMENTARY GERMAN I**

**5 hours**

An introductory German course stressing basic language skills: listening comprehension, speaking, reading, and composition. Additional audio-lingual practice in the learning laboratory.

*Prerequisite: none*

**Germ 125**

### **ELEMENTARY GERMAN II**

**5 hours**

Continuation of German 115.

*Prerequisite: Germ 115*

**Germ 213**

### **GERMAN READINGS**

**3 hours**

Selected readings in prose and poetry along with grammar review, vocabulary building, and additional audio-lingual practice.

*Prerequisite: Germ 125 or consent of the instructor*

## **HISTORY**

**Hist 124**

### **AMERICAN HISTORY**

**4 hours**

A survey of the cultural, economic, institutional, political, and social forces and events which have shaped the United States from the "Age of Discovery" to the present. American History 124 is designed to satisfy Section 170.011, Rs Mo., of the Missouri Statutes in regard to the study of State and Federal Constitutions.

*Prerequisite: none*

**Hist 213**

### **FOUNDATIONS OF WORLD CIVILIZATION I (EUROPE)**

**3 hours**

An interdisciplinary study of the European people "from the Renaissance through the Age of Napoleon." Attention will be given to cultural, intellectual, diplomatic, and political movements. The course is designed for students of history and others desiring elective courses in the humanities.

*Prerequisite: none*

**Hist 223**

### **FOUNDATIONS OF WORLD CIVILIZATION II (EUROPE)**

**3 hours**

An interdisciplinary study of European nations from the French Revolution to the present. Attention will be given to cultural, intellectual, social, diplomatic and political movements of recent

and contemporary Europe. The course is designed for students of history and others who desire an elective course in the humanities.

*Prerequisite: none*

**Hist 233**

**FOUNDATIONS OF WORLD**

**CIVILIZATION III (LATIN AMERICA)**

**3 hours**

An interdisciplinary topical study of the social, economic, political, cultural and intellectual conditions of modern Latin America from 1800 to the present. The course is designed for students of history and others who desire an elective course in the humanities.

*Prerequisite: Sophomore standing or consent of the instructor.*

**Hist 243**

**FOUNDATIONS OF WORLD**

**CIVILIZATION IV (AFRICA AND ASIA)**

**3 hours**

An interdisciplinary study of Africa and Asia from 1800; including studies of the politics, culture and people of both recent and contemporary Africa, China, Japan, India, and other selected nations of Asia. The course is designed for students of history and others who desire an elective course in the humanities.

*Prerequisite: Sophomore standing or consent of the instructor*

**Hist 271**

**DIRECTED STUDIES IN HISTORY (HONORS)**

**1 hour**

The student enrolled for directed studies has two alternatives: (1) investigate a specific topic within the field of history, (2) assist with tutorial history instruction under the supervision of an instructor.

*Prerequisite: Consent of the instructor*

## **HORTICULTURE**

**Hort 113**

**SOILS**

**3 hours**

Students learn the nature and properties of various soil types, the many new artificial mixes, and other important growing media. The use of chemicals necessary for plant development and for the altering of soil properties. Environmental considerations are detailed to specific plant requirements. Up-to-date environmental systems in greenhouse (and field) settings will be explored. Student lab project to these desired ends furnish practical application. This is a course offering experience in soil and plant testing along with data interpretation and application.

*Prerequisite: none*

**Hort 123**

**HORTICULTURE I**

**3 hours**

Introduction to plant life and career opportunities in basic botany is presented along with greenhouse environmental controls. These considerations are applied to growing flowers under glass and in plastic structures. Course covers introduction to major concepts of soils, plant nutrition, and plant identification.

*Prerequisite: none*

**Hort 233****HORTICULTURE II****3 hours**

The identification, culture, and indoor and outdoor use of bulbs, annuals, herbaceous perennials, garden roses, and foliage plants. Trees and shrub identification is also emphasized here. Campus specimens are studied. Pruning techniques are explored with a field-lab approach, along with studying problems of trees. Introduction to the nursery industry; regulations, cultural and planting practices, and nursery-garden center operations.

*Prerequisite: none*

**Hort 243****PLANT PROPAGATION****3 hours**

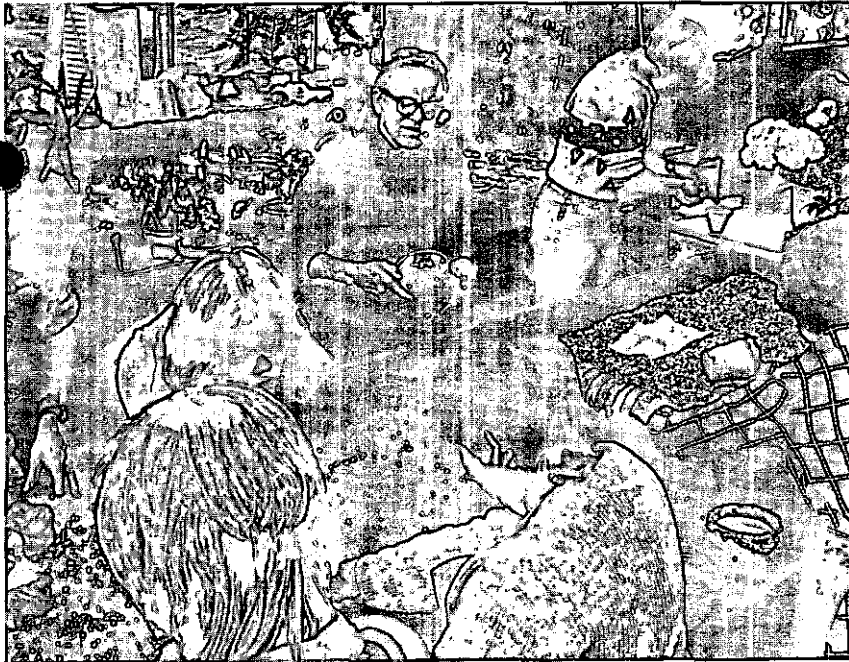
An introduction to the common methods of commercial plant reproduction including seeds, cuttings, layering, grafting, and division. This course will make use of the greenhouse propagation facilities.

*Prerequisite: Biology 155*

**Hort 253****DESIGN I: FLORAL AND LANDSCAPE DESIGN****3 hours**

A basic course dealing with the principles of making simple flower arrangements, types of designs, and styles; principles, tools, equipment, materials, foliages, and flower types and color are covered. Design I offers (as an option) a beginning course in landscape drafting, design, and planning emphasizing proper planning procedures, residential design representations, and the functional and aesthetic use of landscape materials.

*Prerequisite: none*



**Hort 263****HORTICULTURE III****3 hours**

A detailed course dealing with the greenhouse and nursery practices. A segment is included on turfgrasses, their culture and uses for lawns, golf courses, highway, and recreational facilities. Disease and pest control in ornamental plants and turf are also studied, along with weed control. Diagnosis, application, and safety of pest-disease considerations is included. Ornamental plant identification continues with trees, shrubs, vines, and groundcovers.

*Prerequisite: none*

**Hort 273****HORTICULTURE IV****3 hours**

Introduction to greenhouse operation and management with emphasis on commercial flower production. The principles and practices of greenhouse potted plant productions, including azaleas, begonias, bulbs, chrysanthemums, geraniums, hydrangeas, lilies, orchids, and poinsettias. Foliage plants and bedding plants are also included. The business management segment encompasses a study of retail and wholesale horticultural businesses and future opportunities. Field trips are included to several firms, such as nurseries, greenhouses, garden centers, seed and equipment dealers. Topics covered are public relations, advertising, financing, records, employee relations, taxes, ownership, and small business practices. Includes an individual study of a business.

*Prerequisite: none*

**Hort 283****DESIGN II****3 hours**

Students are given advanced training in floral design and pricing and buying flowers. Some study is also made of flower shop management. A field trip is included, exposing students to the commercial emphasis of floral design. The landscape design (option) includes topics of designing, planning, and pricing diversified landscapes. Maintenance are also included in this advanced program. Features construction and installation procedures of walks, fence, mounds, pools, and streams, irrigation, and outdoor lighting. The use of indoor-outdoor sculptures is included in this comprehensive study of landscape design.

*Prerequisite: Hort 253*

**Hort 292,  
293, 294****INTERNSHIP****2-4 hours**

On the job training at the Campus Growing Center, the Missouri Botanical Garden's Arboretum (Gray Summit, MO), and ornamental horticulture businesses. These exposures provide students with opportunities to use competencies developed in the classroom and laboratory. Emphasis here is preparation for fulltime employment. Independent "project" studies may be included in the internship studies.

*Prerequisite: Consent of the instructor*

## JOURNALISM

102

### **PUBLICATIONS PRACTICUM I-YEARBOOK** 2 hours

Students enrolled in this course produce the college yearbook. The course includes instruction and practical experience in copy writing, editing, layout and design, and photography.

*Prerequisite: none*

Jour 112

### **PUBLICATIONS PRACTICUM II-NEWSPAPER** 2 hours

Practice in news reporting, newspaper layout and design, and pasteup. The course is open to all students who want practical experience working on the college newspaper *Cornerstone*.

*Prerequisite: none*

## MATHEMATICS

Math 100

### **BASIC MATHEMATICS** 3 hours

A beginning course which will satisfy certain terminal program requirements but does not satisfy Associate of Arts degree requirements. Topics covered include the following: basic principles of arithmetic, positive and negative numbers, exponents, fractions, decimals, combining like terms, order of operations and symbols of grouping, working with formulas, linear equations, word problems, ratio and proportion, units of measure, area and volume formulas, multiplying polynomials, factoring polynomials, fractions containing variables, radicals, graphing and quadratic equations.

*Prerequisite: none*

Math 103

### **BUSINESS MATHEMATICS** 3 hours

Commercial and financial applications of basic arithmetic and algebraic processes. This course is intended for students in office and business career A.A.S. degree programs.

*Prerequisite: none*

Math 113

### **MODERN MATHEMATICS I** 3 hours

This course is designed for students who are potential elementary teachers or for general education students. Topics are presented in such a manner that they can be mastered by the student without previous training in set theory. Topics covered include the following: sets, logic, venn diagrams, systems of numeration, system of whole numbers, system of integers, system of rational numbers, field properties, algorithms for whole numbers, and terminology of modern math. As these topics are mastered, modern methods of teaching these topics will be investigated.

*Prerequisite: Math 100 or satisfactory score on MMPT.*

Math 123

### **MODERN MATHEMATICS II** 3 hours

This course is designed to make the potential elementary teacher or general education student familiar with all topics which are taught in the math curriculum in grades K-10 and the modern approach of teaching these topics. Topics covered include the following: review of topics covered in Math 113, number theory, decimals and real

numbers, nonmetric metric geometry, metric geometry, statistics and probability, and modern methods of teaching the above mentioned topics.

*Prerequisite: Math 113 or consent of the instructor*

**Math 133      TECHNICAL COMPUTATIONS I      3 hours**

Treatment of measured data, significant figures, applications in geometry, basic algebra, use of the slide rule, linear equations.

*Prerequisite: Math 100 or satisfactory score on MMPT*

**Math 143      TECHNICAL COMPUTATIONS II      3 hours**

Numerical trigonometry of the right angle, analytic trigonometry, oblique triangles, functions and graphs, logarithms, and application of numerical trigonometry and vectors.

*Prerequisite: Math 133*

**Math 153      INTERMEDIATE ALGEBRA      3 hours**

A preparatory course covering the fundamental principles of algebra designed to prepare the student to take college algebra and in the case of certain degrees to satisfy the mathematics requirement. This course is recommended for those students who have only one or two years of high school algebra. Topics covered include the following: sets, factoring, linear and quadratic equations, fractions and fractional equations, exponents and radicals, simple analytical geometry and systems of equations.

*Prerequisite: Math 100 or satisfactory score on MMPT*

**Math 162      TRIGONOMETRY      2 hours**

This course designed to provide the student with a study of the trigonometric functions and their applications. Topics covered include the following: angles, length of arc, tables of trigonometric functions, interpolation, reference angles, graphic representation of trigonometric functions, law of cosines, law of sines, identities, trigonometric equations, inverse functions, complex numbers, logarithms, and polar coordinates.

*Prerequisite: Math 153 or 163.*

*Prerequisite or Corequisite: Math 163*

**Math 163      COLLEGE ALGEBRA      3 hours**

This course is designed to meet the needs of the student in a transfer program. Topics covered include the following: sets, exponents, theory of equations, inequalities, complex number system, systems of equations, permutations, combinations, probability, radicals, sequences, graphing, and statistics.

*Prerequisite: Three years of high school mathematics and/or satisfactory score on the MMPT or Math 153*

**MATH 165      ANALYTIC GEOMETRY AND CALCULUS I      5 hours**

A first course in a sequence of courses including analytic geometry, differential calculus, and integral calculus. This series is recommended for majors in engineering, the physical sciences, and



mathematics. Topics include the following: Properties of real numbers, introduction to analytic geometry, functions, limits, continuity, the derivative, differentiation of algebraic functions, applications of the derivative, antidifferentiations, and the definite integral.

*Prerequisite: Math 163 and Math 162 or satisfactory score on the MMPT.*

**Math 175      ANALYTIC GEOMETRY AND CALCULUS II      5 hours**

A continuation of Math 165 including the following topics: applications of the definite integral, logarithmic and exponential functions, trigonometric functions, techniques of integration, approximate integration, polar coordinates, conic sections, and vectors, and parametric equations.

*Prerequisite: Math 165*

**Math 203      FINITE MATH      3 hours**

An introduction to matrices and linear programming. Designed for non-physical science majors.

*Prerequisite: Math 163 or equivalent*

**Math 213      STATISTICS      3 hours**

This is an introductory course in statistics with an emphasis upon the collection and presentation of the following data: averages, dispersion, introduction to statistical inference, index numbers, time series, correlation and linear regression.

*Prerequisite: Math 153*

**Math 225      ANALYTIC GEOMETRY AND CALCULUS III      5 hours**

A continuation of Math 175 including the following topics: hyperbolic functions, indeterminate forms, improper integrals, vectors in three-dimensional space, solid analytic geometry, differential calculus of functions of several variables, multiple integration, infinite series.

*Prerequisite: Math 175*

**Math 233      DIFFERENTIAL EQUATIONS      3 hours**

Topics include separable variables, homogeneous equations, exact equations, integrating factors, linear differential equations, LaPlace transform, and applications.

*Prerequisite: Math 225*

**Math 271, 272, 273, 274      DIRECTED STUDIES IN MATHEMATICS (HONORS)      1-4 hours**

The student enrolled for directed studies has two alternatives: (1) investigate a specific topic within the field of mathematics, (2) assist with tutorial mathematics instruction under the supervision of an instructor.

*Prerequisite: Consent of the instructor*

## MUSIC

**Mus 103**

### **FUNDAMENTALS OF MUSIC**

**3**

A basic study of music, including notation, scales, intervals, chords, and rhythms; intended for the elementary education major and those not majoring in music. Summer offering intended as a pre-music theory survey.

*Prerequisite: none*

**Mus 111, 211**

### **COLLEGE CHOIR**

**1 hour**

Open to all students with consent of instructor who have had previous chorus or choir experience. Credit will be given for participation each semester.

*Prerequisite: none*

**Mus 111, 211**

### **COLLEGE CONCERT BAND**

**1 hour**

Open to all students with consent of instructor who have had previous experience. Credit will be given for participation each semester.

*Prerequisite: none*

**Mus 111, 211**

### **STAGE BAND**

**1 hour**

The stage band is a studio band and will prepare and present concerts, while dealing primarily with music of the jazz idiom. Credit will be given for participation each semester. Open to all college students who are qualified instrumentalists by consent of the director.

*Prerequisite: none*

**Mus 111, 211**

### **ECJC SINGERS**

**1 hour**

A select singing ensemble which performs popular and religious music of all ages. Open to all students with the consent of the instructor.

*Prerequisite: none*

**Mus 111, 211**

### **PRACTICUM IN CHORAL PERFORMANCE**

**1 hour**

An additional course for the ECJC Singers to help prepare them for public performance in such non-musical areas as body movement, facial expression, mental communication, diction, and handling people.

*Corequisite: Enrollment in ECJC Singers and permission of instructor.*

**Mus 112, 222**

### **APPLIED MUSIC**

**2 hours**

Applied music (private lessons) is offered in the following areas: piano, voice, brass, woodwind, and string instruments.

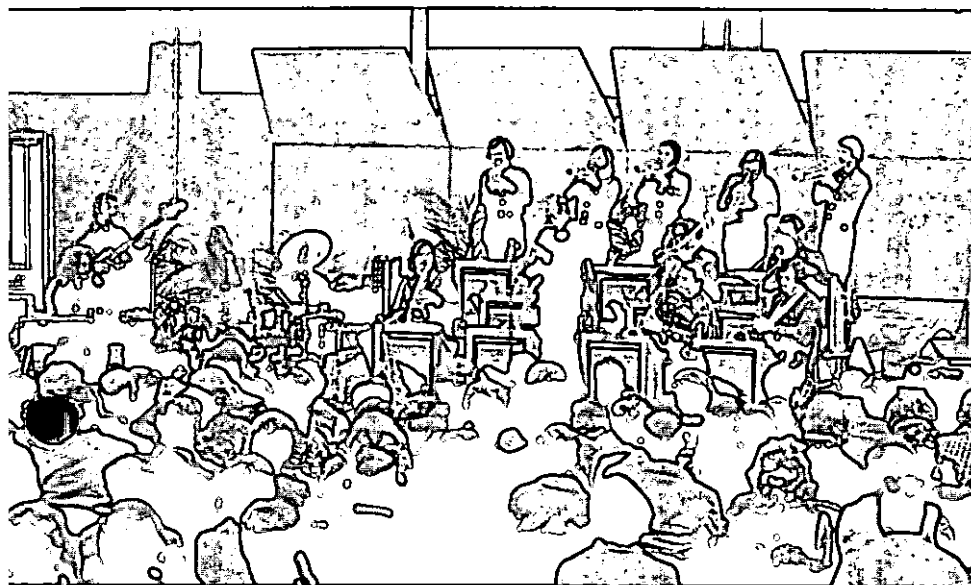
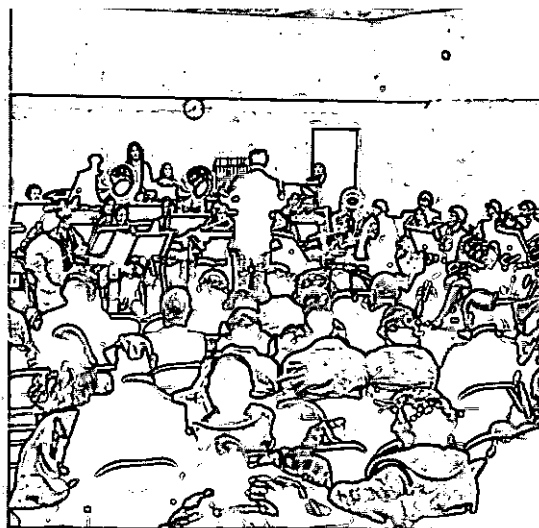
*Prerequisite: none*

**Mus 113**

### **MUSIC APPRECIATION**

**3 hours**

A historical survey of the development of music, intended to provide a background for the understanding and application of music.



Recommended for music majors and minors as well as non-music majors.

*Prerequisite: none*

**Mus 115**

**MUSIC THEORY I**

**5 hours**

A beginning course in music theory, study of intervals, triads, four part diatonic harmony, connection of triads and their inversions. Sight singing, dictation, and elements of music; aural recognition of all diatonic intervals; melodic phrases and rhythms.

*Prerequisite: none*

**Mus 123**

**MUSIC HISTORY I**

**3 hours**

A chronological survey of the development of music in western civilization from the Greek period to the nineteenth century. Emphasis will be placed on the growth of musical form and style as illustrated in the musical masterpieces from the various phases of musical beauty and a consideration of the extra-musical factors bearing upon the lives and works of major composers.

*Prerequisite: none*

**Mus 125**

**MUSIC THEORY II**

**5 hours**

A second course in music theory, extending into areas of seventh chords and non-harmonic tones. Two hours laboratory.

*Prerequisite: Mus 115*

**Mus 133**

**MUSIC HISTORY II**

**3 hours**

A continuation of Music History I surveying the development of music in western civilization from the nineteenth century to the present.

*Prerequisite: none*

**Mus 143**

**MUSIC LITERATURE**

**3 hours**

Music Literature consists of the study of music through aural and visual perception. Music studied will include examples of the major musical forms used by composers from the Middle Ages into the 20th century. In addition to listening assignments covered in class, supplementary listening assignments will be made on a weekly basis.

*Prerequisite: none*

**Mus 202**

**MUSIC FOR ELEMENTARY TEACHERS**

**2 hours**

An activities approach to classroom music for elementary teachers. The activities are approached through the ideas of Orff and Kodaly.

*Prerequisite: Mus 103*

**Mus 215**

**MUSIC THEORY III**

**5 hours**

A third course in music theory. A study of chromatic harmony including secondary dominants, modulation, and altered chords. Two hours laboratory.

*Prerequisite: Mus 125*

**Mus 225**

**MUSIC THEORY IV**

**5 hours**

A continuation of Music 215 to more complex areas of chromatic borrowed and altered chords, and finally to the vigorous appearance of complex modern techniques. Two hours laboratory.

*Prerequisite: Mus 215*

**Mus 271**

**DIRECTED STUDIES IN MUSIC (HONORS)**

**1 hour**

The student enrolled for directed studies has two alternatives: (1) investigate a specific topic within the field of music according to a mutually agreed to syllabus of instruction, (2) assist with tutorial music instruction under the supervision of a departmental instructor of music.

*Prerequisite: Consent of the instructor*

**Mus 281**

**BEGINNING GUITAR**

**1 hour**

A basic course in the elementary skills playing guitar, including chord and melody playing. No previous musical training required.

*Prerequisite: none*

**Mus 291**

**INTERMEDIATE GUITAR**

**1 hour**

A continuation of Beginning Guitar including melody and chord playing as well as the technique of combining the two.

*Prerequisite: Mus 281 or consent of the instructor*

**PHILOSOPHY**

**Phil 103**

**INTRODUCTION TO PHILOSOPHY**

**3 hours**

Through the reading and discussion of representative selections from contemporary and classical writings, this course introduces the student to some of the major areas of philosophic inquiry concerning human experiences and the nature of the reality.

*Prerequisite: none*

**Phil 113**

**INTRODUCTION TO LOGIC**

**3 hours**

Logic is the study of techniques for distinguishing between adequate and inadequate arguments. This course is designed to introduce several techniques that may be used to evaluate arguments. The primary emphasis will be becoming able to use the techniques of propositional and monadic predicate calculi in evaluation arguments. A second emphasis will be upon learning several criteria for distinguishing between adequate and inadequate arguments in science.

*Prerequisite: none*

**Phil 213**

**CONTEMPORARY ETHICAL PROBLEMS**

**3 hours**

This course is a survey course in philosophy. It is designed to be problem oriented, using the writings of the philosophers as a resource in understanding the issues raised by the contemporary ethical problems.

*Prerequisite: none*

### DIRECTED STUDIES

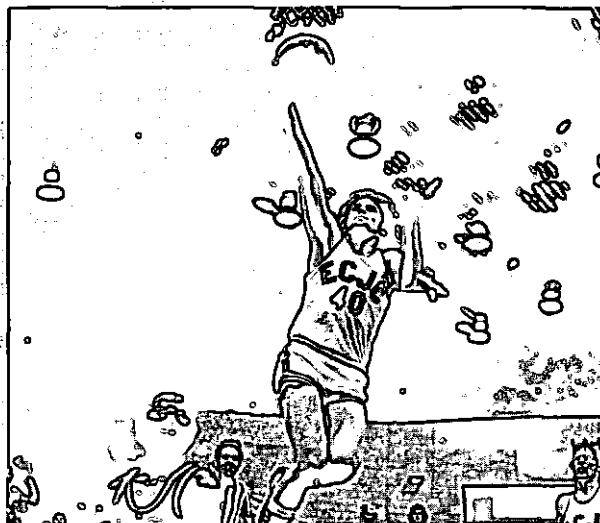
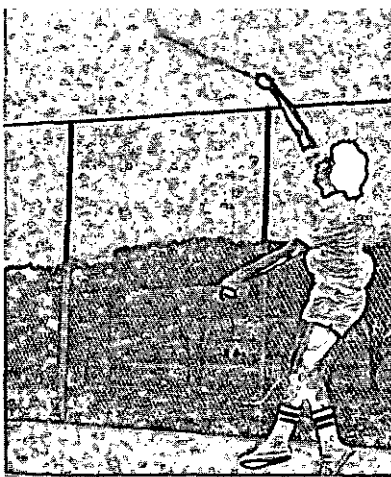
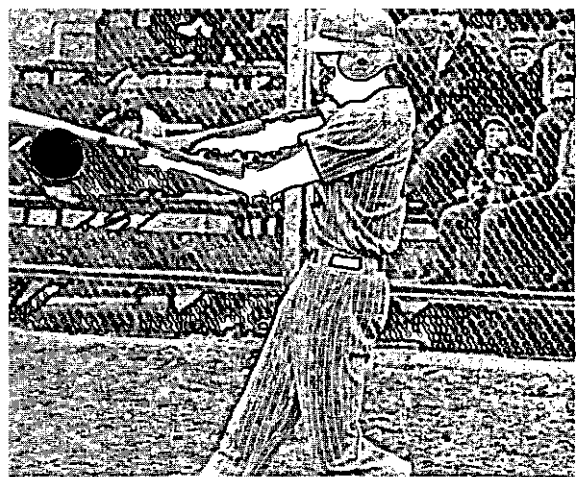
1-3 hours

Intensive study of various topics, individual philosophers, philosophical schools. The study will include extensive reading, discussion, and an in-depth paper.

*Prerequisite: Consent of the instructor*

## PHYSICAL EDUCATION

- PE 101 CO-ED BOWLING 1 hour**  
Emphasis on better performance of skills and techniques. Understanding of form, timing, and coordination. Team competition in league play.  
*Prerequisite: none*
- PE 101 CO-ED CANOEING 1 hour**  
Fundamental techniques, skills and courtesies of canoeing. Actual canoeing trips a part of class sessions.  
*Prerequisite: none*
- PE 101 CO-ED GOLF 1 hour**  
Fundamental techniques and skills, rules, terminology, playing courtesies, and etiquette.  
*Prerequisite: none*
- PE 101 CO-ED GYMNASTICS 1 hour**  
Fundamentals of gymnastics, including an introduction to various apparatus such as the trampoline, side horse, uneven parallel bars, mats, and free exercise. An introduction to weight training may also be received.  
*Prerequisite: none*
- PE 101 CO-ED KARATE 1 hour**  
Techniques of basic empty hand fighting in form, practice, and sparring.  
*Prerequisite: none*
- PE 101 CO-ED SKEET AND TRAP SHOOTING 1 hour**  
Techniques, skills, and safety uses of shooting clay birds.  
*Prerequisite: none*
- PE 101 CO-ED TENNIS 1 hour**  
Fundamental skills, rules, strategy, and courtesies of tennis. Tournament play during class sessions.  
*Prerequisite: none*
- PE 101 FLAG FOOTBALL AND VOLLEYBALL 1 hour**  
A course designed to teach neuromuscular skills, rules, and techniques of flag football and volleyball.  
*Prerequisite: none*



<b>PE 101</b>	<b>BASKETBALL AND SOFTBALL</b>	<b>1 hour</b>
	A course designed to teach neuromuscular skills, rules, techniques of basketball and softball.	
	<i>Prerequisite: none</i>	
<b>PE 101</b>	<b>WRESTLING</b>	<b>1 hour</b>
	Fundamental techniques, skills, and rules of free style wrestling. Including competitive matches.	
	<i>Prerequisite: none</i>	
<b>PE 101</b>	<b>CO-ED TABLE TENNIS</b>	<b>1 hour</b>
	Fundamental techniques, skills and rules of table tennis. Includes competition in both singles and doubles matches.	
	<i>Prerequisite: none</i>	
<b>PE 101</b>	<b>CO-ED ARCHERY</b>	<b>1 hour</b>
	Fundamental techniques, skills and safety practice utilized in shooting a bow and arrow—class will include introduction to Field Archery.	
	<i>Prerequisite: none</i>	
<b>PE 101</b>	<b>CO-ED FOLK AND SQUARE DANCE</b>	<b>1 hour</b>
	A co-educational course designed to teach different dances of other countries and the different movements of square dance.	
	<i>Prerequisite: none</i>	
<b>PE 101</b>	<b>VARSITY SPORTS</b>	<b>1 hour</b>
	One hour of credit is given for participation each semester in the following varsity sports: cross-country, basketball, golf, tennis, and baseball.	
	<i>Prerequisite: none</i>	
<b>PE 102</b>	<b>OFFICIATING SPORTS</b>	<b>2 hours</b>
	A course designed for physical education majors to teach them the techniques and rules of officiating in football and basketball.	
	<i>Prerequisite: none</i>	
<b>PE 102</b>	<b>PERSONAL AND COMMUNITY HYGIENE</b>	<b>2 hours</b>
	A general course designed to develop proper attitudes and practices which will contribute to the fine art of living. Health problems which will require community action are given consideration.	
	<i>Prerequisite: none</i>	
<b>PE 112</b>	<b>INTRODUCTION TO PHYSICAL EDUCATION</b>	<b>2 hours</b>
	A consideration of the principles of the basic theories of physical education. Course is designed for physical education majors and minors.	
	<i>Prerequisite: none</i>	



PE 122

**INTRODUCTION TO RECREATION**

**2 hours**

An introductory look at the field of recreation. Includes study in the history, development, principles and facilities for recreation. The course is designed for physical education and recreation majors and minors.

*Prerequisite: none*

PE 212

**GAMES OF LOW ORGANIZATION**

**2 hours**

A course designed for physical education majors, for the learning of activities and games to be taught on the elementary level. The course involves eight weeks of practical teaching in the first four elementary grades.

*Prerequisite: none*

PE 212

**FIRST AID AND ATHLETIC TRAINING**

**2 hours**

Treatment of wounds, shock, poisoning, fractures, unconsciousness, and stoppage of breathing, the care and prevention of athletic injuries. Red Cross certificate will be earned.

*Prerequisite: none - PE majors*

**PHYSICS**

Phy 105

**PHYSICAL SCIENCE**

**5 hours**

A demonstration, lecture, reading course in physical science designed for students who do not expect to take the traditional courses in laboratory science. This course covers some of the fundamental concepts from the areas of physics, chemistry and geology. It is not recommended as a course for majors or minors in the fields of science. Three hours of lecture and two-hours laboratory periods per week.

*Prerequisite: none*

Phy 115

**INTRODUCTORY PHYSICS**

**5 hours**

Three hours of lecture and two lab periods per week. A study of mechanics, heat, sound, light electricity, and physical properties of matter. This is non-calculus course which features problem solving and laboratory work.

*Prerequisite: either Math 143, 153, or satisfactory score on the MMPT*

Phy 175

**COLLEGE PHYSICS I**

**5 hours**

A study of mechanics, properties of matter and thermodynamics. Not recommended for math, physical science or engineering students.

*Prerequisite: Math 162 and 163 or equivalent*

Phy 185

**COLLEGE PHYSICS II**

**5 hours**

A continuation of Phy 175 including a study of electricity, magnetism, light, and atomic physics. Not recommended for math, physical science, or engineering students.

*Prerequisite: Phy 175*

- Phy 215**      **GENERAL PHYSICS I**      **5 hours**  
 Four hours lecture and one lab per week. A study of the mechanics of solids, liquids, and gases; study of heat and sound. This course is intended for the student who plans to major in mathematics, the physical sciences, or engineering.  
*Corequisite: Math 175*
- Phy 225**      **GENERAL PHYSICS II**      **5 hours**  
 Four hours lecture and one lab per week. A study of electricity, magnetism, light and modern physics.  
*Prerequisite: Phy 215*  
*Corequisite or prerequisite: Math 225*
- Phy 271**      **DIRECTED STUDIES IN PHYSICS (HONORS)**      **1 hour**  
 The student enrolled for directed studies has two alternatives: (1) investigate a specific topic within the field of physics (2) assist in the laboratory, stockroom, or with individualized instruction under the supervision of an instructor.  
*Prerequisite: Consent of the instructor*

## POLITICAL SCIENCE

- Pol S 124**      **AMERICAN GOVERNMENT**      **4 hours**  
 An introduction to the basic principles and structures of American government. Emphasis will be placed on constitutional development and interpretation, the place of government in the social process, the nature of political organization, the processes of the machinery of popular control in the processes of authority and freedom, and the function of the executive, legislative, and judicial branches. State-local relationships, state, county and municipal government and the growth and problems of metropolitan areas are considered. Successful completion of Political Science 124 satisfies Section 170.011 Rs Mo., of the Missouri Statutes in regard to the study of State and Federal Constitutions.  
*Prerequisite: none*
- Pol S 213**      **INTERNATIONAL RELATIONS**      **3 hours**  
 A study of the major factors underlying international relations: climate and geography, national concepts and institutions, the development of foreign policy. Today's problems of developing nations, East vs. West, and nuclear potentials are considered.  
*Prerequisite: Pol S 124 or consent of the instructor*
- Pol S 271**      **DIRECTED STUDIES IN POLITICAL SCIENCE (HONORS)**      **1 hour**  
 The student enrolled for directed studies has two alternatives: (1) investigate a specific topic in the field of political science, (2) assist with tutorial political science instruction under the supervision of an instructor.  
*Prerequisite: Consent of the instructor*

## PSYCHOLOGY

- Psyc 113**      **GENERAL PSYCHOLOGY**      **3 hours**  
A survey of theories and facts dealing with various aspects of human behavior, such as development, perception, motivation and emotion, learning, and personal adjustment.  
*Prerequisite: none*
- Psyc 213**      **PERSONAL AND SOCIAL ADJUSTMENT**      **3 hours**  
A study of personality development and successful and unsuccessful processes of adjustment and human effectiveness.  
*Prerequisite: Psyc 113 or consent of the instructor*
- Psyc 223**      **EDUCATIONAL PSYCHOLOGY**      **3 hours**  
A study of theories and facts concerning human behavior in such areas as motivation, learning, and social development, as applied to the educational process.  
*Prerequisite: Psyc 113 or consent of the instructor*
- Psyc 233**      **CHILD PSYCHOLOGY**      **3 hours**  
A study of development from birth through early adolescence emphasizing physical development, personality development, and the development of social behavior. Relates the development of the child to various aspects of the environment.  
*Prerequisite: Psyc 113*
- Psyc 243**      **APPLIED PSYCHOLOGY**      **3 hours**  
A survey of the applications of psychology's principles and methods in business—personnel selection, the working environment, advertising and consumerism—and other professions. Intended primarily for the business or mid-management student, but open to all students.  
*Prerequisite: Psyc 113*

## SECRETARIAL SCIENCE

- ScS 111**      **PERSONAL IMPROVEMENT FOR THE PROFESSIONAL WOMAN**      **1 hour**  
A study of personality and physical traits, poise, wardrobe, etiquette, personal grooming, etc. Special emphasis is placed on the above as they relate to the business world.  
*Prerequisite: none*
- ScS 113**      **ELEMENTARY TYPEWRITING**      **3 hours**  
The keyboard and techniques of touch typewriting, development of basic skills, and a study of the arrangement of typewritten material.  
*Prerequisite: none*
- ScS 123**      **INTERMEDIATE TYPEWRITING**      **3 hours**  
Further development of typewriting skills with special attention given to improving accuracy and increasing speed. Great emphasis

on producing mailable copy on tables, letters, business forms, and rough draft manuscripts under timed conditions.

*Prerequisite: ScS 113 or speed of at least 40 wpm for five minutes with a maximum of five errors.*

**ScS 133                      ADVANCED TYPEWRITING                      3 hours**  
A continuation of ScS 123 with further development of accuracy and speed in typewritten work. Emphasis on higher production standards and more complex material for mailable copy under timed conditions.

*Prerequisite: ScS 123*

**ScS 142                      MACHINE TRANSCRIPTION                      2 hours**  
Training to develop a high degree of proficiency in machine transcription. Through study and supervised practice on transcribing equipment, both typing and transcribing skills will be merged and further ability developed in proofreading, editing, spelling, punctuation, grammar, word usage, good judgement and decision making as applied to business letters, memorandums, and reports.

*Prerequisite: ScS 113*

**ScS 143                      ELEMENTARY SHORTHAND                      3 hours**  
A study of Gregg shorthand theory and shorthand dictation at moderate rates. Attention is also given to punctuation, spelling, word usage, and reading shorthand notes rapidly.

*Prerequisite or Corequisite: ScS 113*

**ScS 153                      INTERMEDIATE SHORTHAND                      3 hours**  
Development of speed and accuracy in writing shorthand from dictation and development of ability to transcribe. Attention is also given to vocabulary, spelling, punctuation, and reading shorthand notes rapidly.

*Prerequisite: ScS 143 or consent of the instructor*

**ScS 163                      ADVANCED SHORTHAND                      3 hours**  
Emphasis on ability to take dictation and transcribe mailable copy in conformity with occupational standards. Continued attention on punctuation, word usage, and spelling.

*Prerequisite: ScS 123 and ScS 153*

**ScS 172                      OFFICE MACHINES                      2 hours**  
Basic training in the operation and use of adding machines and calculators. Acquaints students with machine terminology, office problems, and work standards.

*Prerequisite: none*

**ScS 182                      SECRETARIAL MACHINES                      2 hours**  
Basic training in the operation and use of duplication machines and typewriter with proportional spacing. Acquaintance given to the automatic typewriting process and to copy machines. Acquaints

students with machine terminology, office problems, and work standards.

*Prerequisite: ScS 113*

**ScS 192      FILING AND RECORDS MANAGEMENT      2 hours**

Filing rules and their application to alphabetic, numeric, subject, and geographic filing. Attention is given to the selection and organization of filing systems, equipment and supplies, retention and disposition of records, and administrative duties.

*Prerequisite: ScS 113*

**ScS 213      SECRETARIAL PROCEDURES      3 hours**

Business information and office skills applicable to the secretarial or clerical profession. Special attention is given to human relations, organization and maintenance of an office, work efficiency, setting priorities, employment standards, and job information.

*Prerequisite: ScS 113*

**ScS 223      BUSINESS COMMUNICATIONS      3 hours**

A study of communication needs in the office, both oral and written, with emphasis on inter-office communication, letters, and reports. Special attention is given to organization, mechanics, and the business vocabulary.

*Prerequisite: Either Eng 123 or 105 and ScS 123*

**ScS 271      DIRECTED STUDIES—SHORTHAND      1 hour**

Continued development of speed and accuracy in writing shorthand and improvement in transcription of mailable copy.

*Prerequisite: ScS 143*

**ScS 291      SECRETARIAL SCIENCE PLACEMENT      1 hour**

A course designed to assist secretarial science students in obtaining jobs suitable to their training and interests.

*Prerequisite: none*

**ScS 296      INTERNSHIP      6 hours**

Supervised work experience in an actual office situation putting to use the skills and related knowledge learned in previous courses. Supervision on the job will be by office personnel. Coordination of work experience to classroom learning will be done by the instructor. Time will be arranged. A seminar will be held for one hour weekly to discuss work experiences and the latest trends in office equipment and techniques gathered through assigned readings in current publications.

*Prerequisite: Enrollment in the Secretarial Science Program and consent of the instructor.*

## **SOCIOLOGY**

**Soc 113      GENERAL SOCIOLOGY      3 hours**

An introductory course in the field of sociology with special emphasis on the scientific study of social relations, social

organizations, social institutions, and social dynamics as related to human behavior.

*Prerequisite: none*

**Soc 123**

**AMERICAN SOCIAL PROBLEMS**

**3 hours**

A study of select social problems, including consideration of proposed lines of action in dealing with them. Problem areas include population, the affluent society, poverty, urban renewal, delinquency and crime, automation, the aging, ethnic and racial relations, and the role of the United States in the relationship to the underdeveloped areas of the world.

*Prerequisite: Soc 113*

**Soc 213**

**HUMAN RELATIONS**

**3 hours**

This course is an introduction to the applied principles of sociology and psychology as they relate to human interaction in small groups. Major emphasis is placed on analysis of the interaction process with a view toward additional understanding of individual and group behavior and the problems attendant to leadership.

*Prerequisite: Psyc 113*

**Soc 223**

**THE FAMILY**

**3 hours**

The study of the family as an agency of personality development, and cultural transmission, including a study of the family in relation to the structure and function of wider forms of social organization.

*Prerequisite: Consent of the instructor*

**SPANISH**

**Span 115**

**ELEMENTARY SPANISH I**

**5 hours**

An introductory Spanish course stressing basic language skills: listening comprehension, speaking, reading, and composition. Additional audio-lingual practice through use of the learning laboratory.

*Prerequisite: none*

**Span 125**

**ELEMENTARY SPANISH II**

**5 hours**

A continuation of Spanish 115.

*Prerequisite: Spanish 115.*

**Span 213**

**SPANISH READINGS**

**3 hours**

Selected readings in prose and poetry along with grammar review, vocabulary building, and additional audio-lingual practice.

*Prerequisite: Spanish 125 or consent of the instructor.*

**Span 222**

**SPANISH COMPOSITION**

**2 hours**

A review of Spanish grammar with practice in composition.

*Prerequisite: Spanish 125 or consent of the instructor*

**SPANISH CONVERSATION:****3 hours**

Practice in conversation with emphasis on perfecting pronunciation.

*Prerequisite: Spanish 125 or consent of the instructor*

**SPEECH****Spe 103****ORAL COMMUNICATIONS****3 hours**

A fundamentals of speech course providing an introduction to the study of oral communication as rhetorical dialogue. The course is designed to develop student improvement in the critical understanding of ideas about rhetorical communication as well as the critical issues of our time, and subsequently to improve individual communications skills.

*Prerequisite: none*

**Spe 113****PUBLIC SPEAKING****3 hours**

An introduction to the basic elements of public speaking. Assignments include the presentation of speeches, preparation of outlines, and the discussion of evaluation techniques.

*Prerequisite: Spe 103 or consent of the instructor*

**Spe 123****ORAL INTERPRETATION****3 hours**

Study in the basic techniques of oral interpretation. The recreation of literature is stressed through acquiring the skills and techniques necessary to convey the intellectual, emotional, and aesthetic values of literature to an audience. The course will include study in the oral interpretation of prose, drama, and poetry.

*Prerequisite: none*

**Spe 133****INTRODUCTION TO THE THEATRE****3 hours**

An appreciation course designed to give a comprehensive introduction to theatre, including theatre history and contributions made by directors, actors, designers, technicians and playwrights to modern dramatic productions.

*Prerequisite: none*

**Spe 271,  
272, 273****DIRECTED STUDIES IN COMMUNICATION OR  
THEATRE ARTS****1-3 hours**

Independent study in the many and varied aspects of the theatre for the advanced student. This could include study in acting, directing, costuming, make-up, scene design and construction, stage lighting, dramatic theory and history. Experimental research and studies of the theories of communication are also possible.

*Prerequisite: Consent of the instructor*

**Spe 281,  
282, 283****THEATRE PRACTICUM****1-3 hours**

The objective of the Theatre Practicum course is to give interested students the opportunity to work in a controlled theatrical environment designed to provide experience and training in the theatre arts under the direct supervision of a theatre instructor.

*Prerequisite: Consent of the instructor*

## TEACHER AIDE

Teac A 213

### TEACHER AIDE SEMINAR

3 hours

A seminar providing the opportunity for Teacher Aide students to discuss the field of Teacher Aide work, and to share the experiences and problems they have encountered in their role as Teacher Aide Interns. Moderated by a college staff member, the seminar serves as the vehicle to tie coursework and experience together in a relevant manner.

*Prerequisite: Sophomore standing*

Teac A 271,  
272, 273

### TEACHER AIDE INTERNSHIP

1-3 hours

Supervised work experience in an actual educational setting, coordinated with the student's regular classwork, to provide a realistic view of the varied duties of a Teacher Aide.

*Prerequisite: Consent of the instructor*

Teac A 291

### TEACHER AIDE PLACEMENT

1 hour

A course designed to assist Teacher Aide students in obtaining jobs suitable to their training and interests.

*Prerequisite: none*

