



EAST CENTRAL

JUNIOR COLLEGE

**1971
1972**

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 133 earns for the student three hours credit.

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

COURSE DESCRIPTIONS

ART

Art 102 Art Appreciation I2 hours
A general survey of the artistic activities of man from pre-historical to modern times. Slides and 16mm films are used in conjunction with the course.

Prerequisite: none

Art 112 Art Appreciation II.....2 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 113 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.

Prerequisite: none

Art 123 Sculpture I3 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 133

Drawing I.....3 hours
An introduction 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: none

Art 143

Drawing II3 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 intergration in the whole organization.

Prerequisite: Art 133 or consent of the instructor.

Art 153

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 123 or consent of the instructor.

Art 163

Painting II3 hours
Theory and practice of making paintings 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 143

Art 213

Sculpture.....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 113 and 122 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 113 or consent of the instructor.

Art 233 Watercolor3 hours
The study of watercolor painting with emphasis upon color and composition and pictorial expression; experimentation with varied methods of watercolor painting. Studies will include washes and brush control.

Prerequisite: Art 113 or consent of the instructor.

Art 243 Printmaking.....3 hours
Lecture and laboratory exercises dealing with history and techniques of printmaking. Also, the making of prints from material such as wood blocks, cardboard, and linoleum by using surface printing techniques will be included.

Prerequisite: Art 113 or consent of the instructor.

BIOLOGICAL SCIENCE

Bio 102 Personal and Community Hygiene2 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-hour laboratory periods per week.

Prerequisite: none

- Bio 145 General Botany5 hours
 An introduction to the plant kingdom, structure, physiology, life histories, economic importances, and the evolution of plants. Laboratory will include dissection 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: none
- Bio 155 General Zoology5 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.
- Prerequisite: none
- Bio 224 Field Biology.....4 hours
 An introduction to ecology and other field courses in biology. Provides a background in field techniques, field and laboratory identification of plants and animals. Three one-hour lecture recitation periods and two two-hour laboratory periods per week.
- Prerequisite: none
- Bio 235 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, uninogenital system, and nervous system. Two lectures and six hours of laboratory per week.
- Prerequisite: Biology 155 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 specific 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

BUSINESS

Bus 103 Introduction to Business3 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 213 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

Bus 223 Accounting II3 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: Business 213

CHEMISTRY

Chem 105 Introductory Chemistry5 hours
An introduction to the basic principles of chemistry, including inorganic, analytical, physical, and organic chemistry. Three hours of lecture and two two-hour laboratories per week.

Prerequisite: none

Chem 115 General Chemistry I.....5 hours
Topics of study include atomic structure, bonding, equations, gases and solutions. Three one-hour lecture periods and two two-hour laboratory periods per week.

Prerequisite: A satisfactory score on the Missouri Math Placement Test and either Chem 105 or high school chemistry.

Chem 125 General Chemistry II.....5 hours
A continuation of Chem 115, including chemical equilibria thermo-dynamics, and a survey of qualitative methods of analysis. Three one-hour lecture and recitation periods and two two-hour laboratory periods per week.

Prerequisite: Chem 115

Chem 234-5 Quantitative Analysis.....4-5 hours
A study of the fundamental principles of quantitative analytical chemistry, including gravimetric and volumetric determinations. Two hour lecture and two or three three-hour laboratory periods per week.

Prerequisite: Chem 125

Chem 245 Introductory Organic Chemistry5 hours
A survey of major topics of organic chemistry including aliphatic and aromatic hydrocarbons, carbohydrates, lipids, amino acids, the vitamins, and steroids. The course relates chemical applications to human metabolism, agriculture, home economics, and medical technology programs. Four hours class and two hours laboratory each week.

Prerequisite: Chem 105 or Chem 115

DRAFTING AND DESIGN TECHNOLOGY

- Draft 113 Engineering Drawing
and Descriptive Geometry3 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 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 Architectural Drawing.....3 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 house plans.
- Prerequisite: Drafting 113
- Draft 143 Machine Drawing3 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 machine drawing.
- Prerequisite: Drafting 113
- Draft 162 Materials and Processes2 hours
A survey of 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. New materials and industrial processes will be surveyed as they evolve.

Prerequisite: none

Draft 172

Principles of Fluid Power2 hours
Principles of hydraulics and pneumatics fundamental to fluid power system design and component selection and application presented. The physical properties of hydraulic fluids, and operational and constructional features of pumps, motors, valves, seals, packing and conductors are covered giving the student an overview of the components in a fluid power system.

Prerequisite: Physical Science 115 or Physics 114

Draft 182

Principles of Metallurgy2 hours
Physical aspects of both ferrous and nonferrous metals are studied in this course. Basic metallurgy as it applies to the physical properties, heat treatment, corrosion, and materials testing.

Prerequisite: none

Draft 202

Technical Illustration2 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 illustrations.

Prerequisite: Drafting 113 and 143

Draft 222

Graphic Kinematics2 hours
A graphic study of motion without regard to forces causing that motion. Covered are vectors, displacement, velocity, and acceleration of linkages and cams. These mechanisms are treated in the strictest geometric form, therefore, making graphic solutions fast and practical. Mathemati-

cal solutions are kept to a minimum, but are used when graphics become too involved or confusing.

Prerequisite: Drafting 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: Drafting 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: Drafting 143

Draft 252 Statics and Strength of Materials.....2 hours
A study of stress and strain experienced by machine parts and structural members in service. Includes statics and vector analysis as applied to structures, beam theory, beam design, theory of columns, and formulae. Emphasis is placed on application of theory and problem solving.

Prerequisite: Math 133 or consent of the instructor.

Draft 263 Tool and Die Design3 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, gages, and dies. Mass production methods are discussed so that this knowledge may be applied in the practical work of tool designing.

Prerequisite: Drafting 113, 243 or consent of the instructor

Draft 293

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: Drafting 113

ECONOMICS

Econ 213

Principles of Macro-Economics.....3 hours
The social control of the economic system by means of monetary, fiscal, and regulatory policies of the government and by the market process.

Prerequisite: none

Econ 223

Principles of Micro-Economics3 hours
An intensive study of the tools of economic analysis and their application to problems of business and public policy, with an emphasis on firms, households, and markets.

Prerequisite: none

EDUCATION

Ed 113

Introduction to Education3 hours
An introduction to all facets of American education including its historical background, its role in today's world, organization and administration, areas of education, personnel in education, provisions for educational materials and environment, and interpretation of education.

Prerequisite: none

ENGINEERING

Engr 113

Engineering Drawing3 hours
A course in orthographic projections (multiview, sections, auxiliaries), isometric and oblique draw-

ing and simple dimensioning. Emphasis is given to interpretation of drawings, technique of sketching, care and use of drafting instruments, and preparation and interpretation of graphs and charts.

Prerequisite: none

ENGLISH

- Eng 103 Communications I3 hours
A course dealing with the fundamentals of grammar, language usage, and composition. This course will partially fulfill the English requirement for the technical education student or may prepare a student to enter English 123, but does not carry credit applicable toward the Associate of Arts degree.
- Prerequisite: appropriate score on the Missouri College English Test and consent of the instructor.
- Eng 113 Communications II3 hours
A continued study of the fundamentals of language usage and composition. This course will partially fulfill the English requirement for the technical education student or may prepare a student to enter English 123, but does not carry credit applicable toward the Associate of Arts degree.
- Prerequisite: English 103 and/or consent of the instructor
- Eng 123 English Composition I.....3 hours
A basic course in expository writing dealing with the fundamentals of English usage, structure and organization of themes, with emphasis on adequate development and rhetorical patterns of organization.
- Prerequisite: demonstrated proficiency on the Missouri English Placement Test and on a writing sample.
- Eng 123H English Composition (Honors).....3-6 hours
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 not be required to take English 133. This student will receive six hours credit in composi-

tion but will be required to take a literature course to fulfill the English graduation requirement.

Prerequisite: demonstrated high proficiency on the Missouri English Placement Test and on a writing sample.

Eng 133 English Composition II3 hours
A continuation of the study of English composition, with emphasis on the writing of the argument, the critical paper, and the research paper.

Prerequisite: English 123

Eng 143 Technical Writing2-3 hours
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 composition course.

Eng 153 Introduction to Essays and Fiction.....3 hours
A study of literature concentrating on the forms and themes of essays and fiction. The course emphasizes the study and analysis of essays, short stories, and novels.

Prerequisite: English 103 or English 123, or English 123 may be taken concurrently.

Eng 213 English Life and Literature I.....3 hours
A survey of English literature from the Anglo-Saxon period through the Age of Reason, presented in a historical and sociocultural framework. Recommended especially for English majors and minors, but also open to other interested students.

Prerequisite: English 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, presented in a historical and sociocultural framework. Recommended especially for English majors and minors, but also open to other interested students.

Prerequisite: English 123 and sophomore standing, or consent of the instructor.

GEOGRAPHY

Geog 103

World Geography3 hours
Geography of the world by regions. The meaning of regions and the basic geography relationships within the major regions of the world. World survey of the inter-relationships of man and his culture to the climates, minerals, soils, and surface features of earth. Designed to acquaint the student with some of the natural causes for cultural conflicts in today's world and to provide a broader understanding of the opportunities available and the limitations imposed by environmental factors in both developed and underdeveloped areas.
Prerequisite: none

GEOLOGY

Geol 115

Introduction to Physical Geology5 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 laboratory hours are provided.

Prerequisite: none

HISTORY

Hist 113

American History I.....3 hours
A survey of the cultural, economic, institutional, political, and social forces and events which have shaped the United States through the Civil War.

Prerequisite: none

Hist 123

American History II3 hours
A survey of the cultural, economic, institutional, political, and social forces and events which have shaped the United States from the Civil War to the present.

Prerequisite: none

Hist 213

Western Civilization.....3 hours
A survey of Ancient Near Eastern Civilization, including Egypt, Mesopotamia, and Israel; the classical civilizations of Greece and Rome; Christianity and Medieval Europe; Islam; and the cultural and religious changes of the Renaissance and Reformation. Attention is given to political developments, cultural achievements, and literary documents of each area.

Prerequisite: none

Hist 223

Western Civilization II.....3 hours
A survey of the cultural, economic, intellectual, political, and social forces which have shaped Western Europe and its areas of influence since the end of the fifteenth century.

Prerequisite: none

MASS MEDIA TECHNOLOGY

M Med 113

History and Principles of Journalism.....3 hours
A study of the history of American Journalism and its role in American culture, as well as a study of the underlying principles necessary for its successful practice today.

Prerequisite: none

M Med 123

Reporting I.....3 hours
A study of methods of news evaluation, news gathering, and news writing with actual writing assignments as an integral part of the course work.

Prerequisite: none

M Med 142

Publications Practicum2 hours
Production of College Newspaper and College Yearbook.

Corequisite: M Med 123

M Med 152

Internship (Production Methods)2 hours
Training in the step-by-step production of a newspaper in an actual newspaper backshop. Work in both offset and letterpress printing methods, techniques of typesetting, make-up and press work.

Prerequisite: none

- M Med 213 Community Newspaper.....3 hours
A study of the role of the community newspaper in the life of the community.
- Prerequisite: M Med 123
- M Med 223 Reporting II3 hours
Continuation of Reporting I with emphasis on investigative and governmental reporting. Students also work as reporters for the college newspaper.
- Prerequisite: M Med 123
- M Med 233 Modern Newspaper Design3 hours
Study of copyediting and modern newspaper and advertising design.
- Prerequisite: Eng 123 or consent of the instructor
- M Med 243 Photojournalism I.....3 hours
A course exploring the principles, concepts and contributions of photojournalism in the newspaper industry.
- Prerequisite: M Med 113 and 123
- M Med 253 Photojournalism II3 hours
Using Photojournalism I as a base, this course builds on the background gained previously, to develop working competencies in the photojournalism field.
- Prerequisite: M Med 243

MATHEMATICS

- Math 100 Basic Algebra.....3 hours
A beginning course in algebra which will satisfy certain terminal program requirements but is not acceptable as degree or transfer credit. Programmed instruction is employed in this course with three class meetings weekly. Topics covered include the following: sets, signed numbers, fractions, combining similar terms, equations, inequalities, factoring, exponents, and applications of algebra.
- Prerequisite: none

Math 103 Business Mathematics3 hours
Commercial and financial applications of basic arithmetic and algebraic processes. This course is intended for students in commercial education and distributive education. This course does not meet the mathematics for the Associate of Arts degree.

Prerequisite: none

Math 113 Modern Mathematics I3 hours
This course is designed to make students who are potential elementary teachers or general education students familiar with the basic concepts and principles of mathematics and the modern approach to mathematics. Topics are presented in such a manner that they can be mastered by the student who has not had previous training in the terminology of modern mathematics. Topics covered include the following: sets, logic, prime numbers and fractions, numeration systems, field properties, and terminology of modern math. As these topics are mastered, modern methods of teaching these topics will be investigated.

Math 123 Modern Mathematics II3 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 include the following: sets, logic, prime numbers and fractions, numeration systems, field properties, area and volume, equations and inequalities, and modern geometry.

Prerequisite:

Math 133 Technical Mathematics I3 hours
Treatment of measured data, significant figures, applications in geometry, basic algebra, use of the slide rule, linear equations.

Prerequisite: none

Math 143 Technical Mathematics II3 hours
Numerical trigonometry of the right angle, analytic trigonometry, oblique triangles, functions and

graphs, logarithms, and application of numerical trigonometry and vectors.

Prerequisite: Math 123

Math 153

Intermediate Algebra3 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 103 or satisfactory score on Missouri Math Placement Test

Math 162

Trigonometry2 hours
This is a 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 or corequisite: Math 153 or 163

Math 163

College Algebra3 hours
This course is designed to meet the needs of the student in a transfer program. Topics covered include the following: sets, factoring, exponents, radicals, linear and quadratic equations, theory of equations, inequalities, logarithms, complex numbers, field properties, systems of equations, simple linear programming, and applications of these topics.

Prerequisite: Three years of high school mathematics and/or satisfactory score on the Missouri Math Placement Test 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, antidifferentiation, and the definite integral.

Prerequisite: Math 163 and Math 162 or satisfactory score on placement tests.

Math 175 Analytic Geometry and Calculus II5 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 285 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 295 Differential Equations3 hours
Topics include separable variables, homogenous equations, exact equations, integrating factors, linear differential equations, lap-lace transform, and applications.

Prerequisite: Math 285

MID-MANAGEMENT

MidM 213 Principles of Marketing3 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

MidM 223 Salesmanship3 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

MidM 233 Advertising3 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 advertising plans. Each student will be assigned an advertising project concerned with a marketing plan, advertising strategy, and an advertising budget.

Prerequisite: none

MidM 243 Principles of Finance.....3 hours
Basic financial management of the business firm involving procurement, allocation, and control of funds according to objectives of profitability and liquidity. Corporate financial behavior and practice are studied relative to initial organization and structure; financial instruments and market; measurement, analysis, and interpretation of investment and profit performance.

Prerequisite: none

MidM 252 Display2 hours
A study of the types and the role of visual merchandising in the retail store including creation, color and principles of design.

Prerequisite: none

MidM 263 Retailing3 hours
The organization and management of retail establishments.

lishments; store location, policies, sales systems, control of inventories, personnel, store publicity and advertising; summaries for management control.

Prerequisite: none

MidM 273 Personnel Management3 hours
An evaluation and comparison of private and public personnel practices and techniques of recruiting, selecting, transferring, promoting, classifying, and training workers.
Prerequisite: none

MidM 283 Business Law3 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

MidM 291, 292 Internship1-3 hours
292, 293 This phase of the student's mid-management training will include actual work experience in a retail business with weekly discussions of the problems involved in applying classroom principles to the job.

Prerequisite: none

MUSIC

Mus 102 Fundamentals of Music2 hours
A basic study of music, including notation, scales, intervals, chords, and rhythms; intended for the elementary education major and those not majoring in music.

Prerequisite: none

Mus 113 Music Appreciation3 hours
A survey of the development of music, intended to provide a background for the understanding and appreciation of music. Recommended for music majors and minors as well as non-music majors.

Prerequisite: none

Mus 115 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. Two hours laboratory.

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: Music 115

Mus 215 Music Theory III5 hours
A third course in music theory. A study of chromatic harmony including secondary dominants, modulation, and altered chords. Two hours laboratory.

Prerequisite: Music 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: Music 215

Mus 111, 121, 211, 221 College Choir1 hour
Open to all students interested in singing in the College Choir who had had chorus or choir experience on the high school level. Credit will be given for participation each semester in accordance with the course numbering shown.

Prerequisite: none

Mus 111, 121, 211, 221 College Band.....1 hour
Open to all students interested in participating in concert band, pep band and stage band, who have participated in a band organization on the high school level.

Prerequisite: none

Mus 111-222 Applied music is offered in the following areas:
piano, voice, brass and woodwind instruments.

Prerequisite: none

Additional courses in music education will be offered as the demand dictates. Such courses as Teaching Elementary Music, Teaching Secondary Music, Techniques of Teaching Instrumental Music, Vocal Music in the Secondary School may be offered within the near future.

PHYSICAL EDUCATION

PE 101, 111, 201, 211 Physical Education for Men I, II, III, and IV1 hour per course
Participation in various games and sports. Course is required of all freshmen and sophomore men.

Prerequisite: none

PE 121, 131, 221, 231 Physical Education for Women I, II, III, and IV1 hour per course
Participation in various games and sports. Course is required of all freshmen and sophomore women.

Prerequisite: none

PE 112 Introduction to Physical Education2 hours
A consideration of the principles of the basic theories of physical education. Course is designed for physical education majors and minors.

Prerequisite: none

PE 122 Community Recreation2 hours
Study and practice of adult sports adaptable to junior and senior high school facilities and to recreational centers. Course designed for physical education and recreation majors and minors.

Prerequisite: none

PE 212 First Aid2 hours
Treatment of wounds, shock, poisoning, fractures, unconsciousness, and stoppage of breathing. American Red Cross certificate may be earned.

Prerequisite: none

PHILOSOPHY

- Phil 113 Introduction to Logic3 hours
Logic is the study of techniques for distinguishing between adequate arguments and inadequate ones. This introductory course is designed to introduce several techniques that may be used to evaluate arguments. The primary emphasis will be upon becoming able to use the techniques of traditional logic, propositional and monadic predicate calculi in evaluating arguments. A second emphasis will be upon learning several criteria for distinguishing between adequate and inadequate arguments in science.
- Prerequisite: none

PHYSICS

- Phy 114 Introductory Physics4 hours
Three hours of lecture and one lab period 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: Math 152 and Math 153 or consent of the instructor
- Phy 215 General Physics I5 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 II5 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 285

POLITICAL SCIENCE

Pol S 113 American National Government.....3 hours
An introduction to the basic principles and structures of American national 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 exercise of authority and freedom, and the function of the executive, legislative, and judicial branches. Successful completion of Political Science 113 and 123 meets the State of Missouri requirements in American history and institutions and state and national constitutions.

Prerequisite: none

Pol S 123 American State and Local Governments3 hours
An introductory survey of state constitutions, legislative, executive and judicial organization, and powers and principal activities of the states. Emphasis will be upon state-local relations, county-municipal governments, and the growth and problems of metropolitan areas.

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 113 or 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 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

SECRETARIAL SCIENCE

ScS 112 Elementary Typewriting.....2 hours
Techniques in touch typewriting; development of basic skill and speed; form, style, and arrangement of typewritten material.

Prerequisite: none

ScS 122 Intermediate Typewriting.....2 hours
Further development of typewriting skills with special attention given to speed building and control. Continued instruction in letter styles, tabulations, reports, and forms.

Prerequisite: ScS 112 or speed of at least 40 wpm for five minutes with a maximum of five errors.

ScS 132 Advanced Typewriting.....2 hours
An intensive continuation of ScS 122 with development of higher speed and accuracy in all forms of typewritten work.

Prerequisite: Scs 122

ScS 113 Elementary Shorthand.....3 hours
A study of the principles of Gregg shorthand theory and the taking of shorthand dictation at moderate rates.

Prerequisite: ScS 112 or concurrent enrollment

ScS 123 Intermediate Shorthand.....3 hours
Development of speed and accuracy in writing shorthand from dictation and further development of ability to transcribe.

Prerequisite: ScS 113 and ScS 112; corequisite: ScS 122

- ScS 133 Advanced Shorthand.....3 hours
 Emphasis on ability to take dictation and transcribe mailable copy in conformity with occupational standards.
- Prerequisite: ScS 122 and 123
- ScS 143 Office Machines.....3 hours
 Basic training in the operation and use of office calculating and adding machines, duplicating machines, and transcription machines. Acquaints students with machine terminology and office problems.
- Prerequisite: ScS 112 or equivalent
- ScS 212 Filing and Records Management2 hours
 Filing rules and their application to alphabetic, numeric, subject, and geographic filing. Attention is given to the selection and organization of a filing system, equipment and supplies, retention and disposition of records, and administrative duties.
- Prerequisite: ScS 112 or concurrent enrollment
- ScS 213 Business Communications.....3 hours
 A study of the various types of business letters, reports, and other communication forms and development of the ability to compose clear, correct business letters according to current theories of business-letter writing. A review of grammar and mechanics and enlargement of the business vocabulary.
- Prerequisite: one previous English composition course and ScS 112
- ScS 223 Secretarial Procedures3 hours
 Business information and skills applicable to the secretarial or clerical profession with emphasis on the following areas: mailing, filing, communications, reports, office equipment and supplies, banking procedures, travel and transportation, and job information and applications. Human relations and work efficiency are stressed.
- ScS 291, 292 Internship.....1-3 hours
 293 Supervised work experience in an actual office situation, putting to use the skills and related know-

ledge learned in previous courses. Supervision on the job will be by office personnel. Coordination work experience to classroom learning will be done by the instructor. Time will be arranged.

Prerequisite: 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: Sociology 113

Soc 203 Human Relations.....3 hours
This course is designed as an introduction to the basic principles of sociology, general psychology, and industrial psychology. Major emphasis is placed on such topics as the origin and development of the social body, group behavior, and the problems attendant to leadership and cooperation. Designed to develop a thorough understanding of human relationships in the industrial complex.

Prerequisite: sophomore standing or consent of the instructor.

Soc 213 The Family3 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 Spanish5 hours
Presentation of basic written and oral aspects of Spanish. Additional practice in aural comprehension through use of the language laboratory.

Prerequisite: none

Span 125 Intermediate Spanish.....5 hours
Review of basic grammar, with increased practice in conversation, reading, and composition. Additional practice in aural comprehension through use of the language laboratory.

Prerequisite: Spanish 115 or two units of high school Spanish.

Span 203 Spanish Reading.....3 hours
Reading skill cultivated with an introduction to Spanish Literature.

Prerequisite: Spanish 125 or the equivalent

Span 212 Spanish Composition.....2 hours
A review of Spanish grammar with practice in composition.

Prerequisite: Spanish 125 or the equivalent.

Span 223 Spanish Conservation.....3 hours
Practice in conversation with emphasis on perfecting pronunciation.

Prerequisite: Spanish 125 or the equivalent.

SPEECH

Spe 113 Public Speaking.....3 hours
An introduction to the basic elements of public speaking and platform performance. Materials and activities are used to make the course practical.

Prerequisite: none

FACULTY

EAST CENTRAL JUNIOR COLLEGE 1970-71

(Dates indicate year of appointment)

- Lee M. Adams, Instructor of English, 1970
B.A.—State University of Iowa (Iowa City)
M.A.—Northeast Missouri State Teachers College (Kirksville)
Additional Study—University of Bochum (Bochum, Germany)
- Elizabeth Adamson, Assistant Instructor of Speech, 1970
B.S.—University of Missouri (Columbia)
Master's Candidate—University of Missouri (Columbia)
- Leroy H. Alt, Instructor of Mathematics and Physics, 1969
Chairman, Division of Mathematics and Science, 1969
B.S.—University of Missouri (Rolla)
M.S.—University of Missouri (Rolla)
Additional Study—Washington University (St. Louis)
- Ron L. Beeler, Instructor of Mathematics, 1970
B.S.—Northeast Missouri State Teachers College (Kirksville)
M.A.—Indiana University (Bloomington)
- George J. Biller, Jr., Assistant Instructor of Drafting, 1969
B.S. (Mechanical Engineering)—University of Missouri (Columbia)
- William H. Skip Boyer, Instructor of Journalism and Public Relations Assistant, 1970
B.A.—Hastings College (Nebraska)
M.S.—Kansas State University (Manhattan)
- Ralph A. Burns, Instructor of Chemistry and Mathematics, 1969
B.S.—Central Missouri State College (Warrensburg)
M.S.—Central Missouri State College (Warrensburg)
- H. Duane Campbell, Business Manager (Business), 1969
A.A.—Southwest Baptist College (Bolivar)
B.S.—Central Missouri State College (Warrensburg)
- Edward B. Conway, Instructor of Business, 1969
Chairman, Division of Social and Behavioral Sciences, 1970
B.S.—St. Louis University
M.S. in C—St. Louis University
Additional Study—St. Louis University