

COLLEGE CREDIT COURSE DESCRIPTIONS

The college credit courses listed in this section fall into three categories as identified by the following symbols.

KEY TO SYMBOLS:

- * University Parallel—This course is intended for transfer to a university.
- + Dual Purpose—Any course identified by this symbol is a university parallel offering. As well, the course is also part of certain occupational programs; hence, it serves both university parallel and occupational objectives.
- # Occupational—The level and content of this course are tailored for those who wish to enter the business or industrial world.

+AAC 160 General Accounting I

3 cr.

Basic training in double entry bookkeeping; journalizing, posting, the trial balance, ledgers, the worksheet, preparation of financial statements, adjusting closing and reversing entries, and special problems for a merchandising business with the use of a practice set. Three contact hours.

+AAC 161 - General Accounting II

3 cr.

A continuation of AAC 160. Topics include inventories, deferrals and accruals, depreciation, internal control, bank reconciliation, payrolls, systems and principles. A practice set is also included. Three contact hours. The satisfactory completion of AAC 160 and AAC 161 is equivalent to the completion of AAC 260.

+AAC 260 - Principles of Accounting I

3 cr.

An introductory study of the underlying principles of double entry records; basic types of records and reports; accounting procedure and technique; inventories valuation and depreciation methods; the form and content of the balance sheet and the income statement. Three contact hours. This course should not be taken if you have satisfactorily completed both AAC 160 and AAC 161.

+AAC 261 - Principles of Accounting II

3 cr.

Prerequisite: AAC 260. An introduction to the formation, liquidation, and dissolution of partnerships and corporations. Accounting for stocks and bonds. An introduction to job-order costing and standard costing; and financial statement analysis as an aid to management decision making. Three contact hours.

+AAC 262 - Intermediate Accounting I

3 cr.

Prerequisite: AAC 261. A continuation of the accounting principles involved in measuring income, expense, and the valuation of assets. Three contact hours.

+AAC 263 - Intermediate Accounting II

3 cr.

Prerequisite: AAC 262. Accounting for stockholders equity and stock transactions. Long-term liabilities, and investments in corporate securities. Attention is given to statements from incomplete data and the correction of errors. Three contact hours.

+AAC 280 - Cost Accounting

3 cr.

Prerequisite: AAC 261. Interpretation and analysis of cost into three major areas: (1) planning and controlling routine operations (break-even analysis; job order process cost systems), (2) inventory valuation and income determination (standard costing), (3) policy making and long-range planning (capital budgeting). Three contact hours.

#AAC 281 - Federal Tax Course (Tax Accounting)

4 cr.

This course is designed to provide a comprehensive explanation of the Federal tax structure and to provide training in the application of the tax principles to specific tax problems. Four contact hours. (Two meetings per week - Two class hours per meeting).

+ADS 261 - Advertising

3 cr.

Introduction to the field of retail advertising, its purpose, institutions and functions. Includes planning and advertising, local media and types of retail advertising. Three contact hours.

+AIC 283 - Air Conditioning & Heating

3 cr.

An introductory course to environmental control of buildings and houses with emphasis on equipment performance and system design. Four contact hours - Two class hours; Two laboratory hours.

#AIO 161 - Flight Theory

3 cr.

Classroom instruction. Introductory course designed to prepare students for the FAA Private Pilots Written Examination. The course includes: science of flight; airplane systems and instruments; weight, balance, and performance; meteorology; physiology of flight; basic navigation (including flight plotter and computer); radio navigation; Air Traffic Control and communications; Airman's Information Manual; and Federal Aviation Regulations. Three contact hours.

***ANA 205 - Comparative Anatomy**

4 cr.

Prerequisite: ZOO 101. A comprehensive survey of the anatomy of chordates with emphasis of study to be placed on the Amphioxus, Necturus, cat, and dogfish shark. All structural systems of each of these animals will be investigated from embryology to maturity. Six contact hours; Three class periods and three laboratory hours.

***ANA 215 - Human Anatomy and Physiology**

3 cr.

A study of the gross morphology and physiology of the human. The course includes sections concerned with cells, tissues, musculo-skeletal system, circulation, the lymphatic system, the excretory system and fluids and electrolyte balance. Four contact hours; two hours lecture; one two-hour laboratory.

***ANA 216 - Anatomy and Physiology**

3 cr.

Prerequisite: ANA 215. A continuation of BY 211. Topics considered are the endocrine system, reproductive system, nervous system, special senses; respiratory system, digestive system and the integument. Four contact hours: two hours lecture; one two-hour laboratory.

***ANT 220 - Cultural Anthropology**

3 cr.

The nature of culture and an analysis of the languages, economic organization, social groups, art, and religion in primitive societies. Three contact hours.

***ANT 230 - Physical Anthropology**

3 cr.

The study of the evolution of man from his earliest ancestors to the development of modern man into races through the sub-species specialization of Homo sapiens. Three contact hours.

#APA 161 - Fashion Merchandising I

3 cr.

A description of ways in which operations of the various segments of the clothing and textiles industry impinge on retailing. Three contact hours.

#APA 162 - Fashion Merchandising II

3 cr.

A continuation of APA 161. The course will also include: a study of the consumers of

fashion, retailing techniques, and the merchandising of non-fashion items. Three contact hours.

#APA 164 - Fashion Merchandising Seminar I

1 cr.

A seminar designed to provide an opportunity to solve problems encountered while participating in the work experience program. One contact hour.

#APA 172 - Fashion Merchandising Practicum I

3 cr.

An analysis of employee responsibilities in an operating store situation; a minimum of 20 hours per week of practical work experience approved by the student's advisor, including an acceptable written report. Two contact hours.

#APA 265 - Fashion Merchandising Seminar II

1 cr.

A Seminar designed to provide an opportunity for the student to analyze his/her job performance, learn the skills necessary to fill out necessary reports and analyze various job descriptions pertaining to merchandising. The student must be currently enrolled in the Fashion Merchandising Practicum II and have taken Fashion Merchandising I and II. One contact hour.

#APA 266 - Fashion Merchandising Seminar III

1 cr.

This course is designed to provide an opportunity to learn sales promotion and display techniques while participating in the work experience program. One contact hour. Prerequisite Fashion Merchandising I and II and Fashion Merchandising Practicum I & II and Fashion Merchandising Seminar I and II.

#APA 274 - Fashion Merchandising Practicum II

3 cr.

A minimum of 20 hours per week of practical work experience approved by the student's advisor. The student will display the necessary ability of solving on the job problems, such as customer relations working with mechanical equipment and related selling experiences. Prerequisite is Fashion Merchandising I and II and Fashion Merchandising Practicum I. Twenty contact hours.

#APA 275 - Fashion Merchandising Practicum III

3 cr.

The students will demonstrate through a minimum of 20 hours per week of work experience, the knowledge of the merchandise with which they are working, an enthusiastic attitude toward merchandising, and knowledge of retail store organization and operation. Work experience will be approved by the student's advisor. Prerequisite is Fashion Merchandising I and II and enrollment in the previous Fashion Merchandising Practicum and Seminars. Twenty contact hours.

+APC 291 - Business Communications

3 cr.

Prerequisite: ENG 101 or consent of instructor, and the ability to typewrite. A study of effective business communication and a brief review of grammar, punctuation, and vocabulary. Extensive practice will be given in business letter writing. Three contact hours.

***APD 101 - Crafts as an Element of Design**

3 cr. (Evening: 2 cr.)

This course is planned as an introduction to contemporary and traditional crafts. Weaving, macrame batik, and leathercrafts will be included. Basic techniques will be taught and personal creativity will be encouraged. Six contact hours. (Evening: Four contact hours.) This course may be repeated for additional credit for up to a combined total of three semesters with permission of the instructor. Nine semester hours total maximum.

***APD 120 - Design I**

3 cr. (Evening: 2 cr.)

An analytical approach to the elements and principles of design. Emphasis on line, form, texture, and color in both two and three dimensional space organizations. Six contact hours (2 class hours; 4 studio hours). (Evening: Four contact hours - 1 class hour; 3 studio hours).

APD 121 - Design II*3 cr. (Evening: 2 cr.)**

Prerequisite: APD 120 or consent of instructor. A continuation of APD 120. Six contact hours (2 class hours; 4 studio hours). (Evening: Four contact hours - 1 class hour; 3 studio hours.)

APD 230 - Ceramics: Hand-Building I*3 cr. (Evening: 2 cr.)**

Prerequisite: ART 101 and APD 120 desirable. This course introduces the basic methods of ceramic production in hand building and glaze application. Six contact hours (2 class hours; 4 studio hours). (Evening: Four contact hours - 1 class hour, 3 studio hours.)

APD 231 - Ceramics: Handbuilding II*3 cr. (Evening: 2 cr.)**

A continuation of APD 230. Emphasis on creativity and special problems. Kiln stacking and firing also included. Six contact hours (2 class hours; 4 studio hours). (Evening: Four contact hours - 1 class hour, 3 studio hours.)

APD 232 - Ceramics: Wheel Throwing I*3 cr. (Evening: 2 cr.)**

Prerequisite: APD 230 or consent of instructor. This course introduces the basic methods of wheel throwing along with kiln stacking and glazing techniques. Six contact hours (2 class hours; 4 studio hours). (Evening: Four contact hours - 1 class hour, 3 studio hours.)

APD 233 - Ceramics: Wheel Throwing II*3 cr. (Evening: 2 cr.)**

A continuation of APD 232. Emphasis on perfecting the technique of wheel throwing and on creativity. Ceramic sculpture is included. Six contact hours (2 class hours; 4 studio hours). (Evening: Four contact hours - 1 class hour, 3 studio hours.)

APD 234 - Glaze Exploration*3 cr. (Evening: 2 cr.)**

This course includes practice in the use of the nature of glazing techniques such as mishima and Sgraffito, plus application and testing procedures. Six contact hours (2 class hours; 4 studio hours). (Evening: Four contact hours - 1 class hour, 3 studio hours.)

APD 280 - Graphics I*3 cr. (Evening: 2 cr.)**

Prerequisite: ART 101. The course consists of experimentation with line, tone etching, intaglio and relief printing. Six contact hours (1 class hour; 5 studio hours). (Evening: Four contact hours - 1 class hour, 3 studio hours.)

APD 281 - Graphics II*3 cr. (Evening: 2 cr.)**

Prerequisite: APD 280. A more detailed study of intaglio materials and techniques. Six contact hours (2 class hours; 4 studio hours). (Evening: Four contact hours - 1 class hour, 3 studio hours.) This course may be repeated for additional credit for up to a combined total of three semesters with permission of the instructor. Nine semester hours total maximum.

#APM 061 - Introduction to Technical Math**3 Institutional cr.**

A review of High School mathematics for students who lack the background necessary for enrollment in APM 160. The course includes review of number theory, fractions, decimals, ratio and proportion, percentages, areas, volumes and basic algebra as applied to engineering calculations. Three contact hours.

+APM 141 - Business Mathematics**3 cr.**

A mathematical treatment of financial problems arising in modern living. The principal purpose of this course is to develop skill in the handling of business transactions. It covers such topics as: percentage, inventories and turnover, simple interest and present value, depreciation, and payroll. Three contact hours.

+APM 160 - Technical Math I**3 cr.**

Applied mathematics involving the principles and laws of basic algebra, solution of linear equations, and basic analytical geometry. In each presentation, the work is supplemented

with solutions to problems of technical nature. The prerequisites for this course are two years of high school algebra and a year of geometry. Three contact hours.

+APM 161 - Technical Math II

3 cr.

Prerequisite: APM 160. A continuation of APM 160 which covers the laws and principles of trigonometry, vector analysis, complex numbers and geometric consideration of trig functions. Practical work in solution of engineering problems is emphasized. Three contact hours.

#APM 164 - Engineering Calculations

1 cr.

Slide rule basic operations, multiplication, division, finding squares, cubes, square roots, cube roots, reciprocals, and common logarithms. Some trigonometric operations. One contact hour.

+APM 280 - Technical Math III

3 cr.

Prerequisite: APM 161. A course designed to give the student an introduction into elementary differential and integral calculus with emphasis on their application to engineering problems. Analytical geometry will be introduced where needed to clarify the calculus. Three contact hours.

***ART 101 - Drawing I**

3 cr. (Evening: 2 cr.)

Introduction to the basic disciplines of drawing through the use of still life, landscape, and the figure. Six contact hours (2 class hours; 4 studio hours). (Evening: Four contact hours - 1 class hour; 3 studio hours.)

***ART 102 - Drawing II**

3 cr. (Evening: 2 cr.)

Prerequisite: ART 101 or consent of instructor. A continuation of ART 101. Six contact hours (2 class hours; 4 studio hours). (Evening: Four contact hours - 1 class hour; 3 studio hours.)

***ART 110 - Art Appreciation**

3 cr.

A course designed to supply the non-art major with a foundation for understanding the visual arts through introduction to different media of art expression. Three contact hours.

***ART 211 - Art History I**

3 cr.

A history and critical study of painting, sculpture, and architecture from prehistoric times to the Renaissance. Three contact hours.

***ART 212 - Art History II**

3 cr.

Prerequisite: ART 211. A continuation of the history and criticism of art from the Renaissance to the present. Three contact hours.

***ART 231 - Painting I**

3 cr. (Evening: 2 cr.)

Prerequisite: ART 102 or consent of instructor. A comprehensive analysis of painting techniques and contemporary approach to still life, landscape, and figure compositions. Six contact hours (2 class hours; 4 studio hours). (Evening: Four contact hours - 1 class hour, 3 studio hours.)

***ART 232 - Painting II**

3 cr. (Evening: 2 cr.)

Prerequisite: ART 231. A continuation of ART 231 with emphasis on exploratory work achieved by means of research, evaluation of traditional and contemporary compositions, and contributions of artists, past and present. Emphasis on the abstract and non-objectives. Six contact hours (2 class hours, 4 studio hours.) (Evening: Four contact hours - 1 class hour, 3 studio hours.)

***AST 110 - Introduction to Astronomy**

3 cr.

This is a general education course and is not intended for the student who is going to

major in astronomy or other sciences. The student will become acquainted with the solar system with emphasis on his own planet and its satellite, the moon. He will also study other planets, satellites, comets, meteors, the Milky Way and other galaxies, and the theories of the universe. The stars and planets will be discussed relevant to the most modern ideas. Three contact hours.

#BCN 181 - Building Construction

3 cr.

Prerequisite: CIT 180; MEY 160. A study of the qualitative aspects of structural design involved in the materials and types of construction used in various parts of buildings. Analysis and evaluation of work methods, equipment and specifications employed in the construction of residential, commercial and small industrial buildings. Four contact hours (two class hours; two laboratory hours.)

#BCN 282 - Planning and Estimating

3 cr.

Prerequisites: APM 160; MEY 160. Analysis and determination of job requirements and costs of construction operations, including direct and indirect costs and preparation of bid proposals for construction projects. Four contact hours: two class hours; two laboratory hours.

+BDP 170 - Introductory Computer Concepts

3 cr.

An introduction to the field of data processing to include the history of computers, the study of processing systems, computer hardware, and an introduction to programming systems. This course is intended for students with no prior experience in data processing. Four contact hours: three class hours, one laboratory hour.

+BDP 171 - Data Processing Mathematics

3 cr.

This is a college level mathematics course designed for students studying data processing or computer science. The course will include the study of numbering systems, basic algebra, functions, linear programming and logic. Three contact hours.

+BDP 172 - Basic Assembly Language Program

3 cr.

Prerequisite: BDP 170 or equivalent experience. This course will include the study of basic assembly language programming on the IBM 360 computer system. Course will be taught with hands-on approach where students will prepare and run their own application programs. Four contact hours: three class hours, one laboratory hour.

#BDP 173 - Data Processing Applications

3 cr.

Prerequisite: BDP 170 or equivalent experience. This course will include flowcharting, card design, forms design and data coding and an introduction to the study of the automated procedures utilized in processing business data. Areas covered will include accounts payable, accounts receivable, payroll, inventory and production. Four contact hours: three class hours, one laboratory hour.

+BDP 174 - Data Processing Workshop

3cr.

This course provides the opportunity for students studying computer operations to gain actual work experience within an operational data center. Work hours will be scheduled around students' other classes. Additional training will be given via electronic console simulators. Eight contact hours.

+BDP 290 - COBOL Programming

3 cr.

Prerequisite: BDP 172 or equivalent experience. This course will include the study of COBOL programming and will be taught with the hands-on method. Under this method students will learn by the actual writing of programs which they will run and debug on the college computer system. Four contact hours.

+BDP 291 - Systems Development and Design

3 cr.

Prerequisite: BDP 170 and BDP 173 or equivalent experience. This course will include

the study of systems and analysis through the analyst's duties, the tools at his disposal and case studies. These studies will comprise the bulk of the course and will be presented as complete systems design packages. Four contact hours.

+BDP 293 - Advanced Assembly Language Programming

3 cr.

Prerequisite: BDP 172 or equivalent experience. This course is an extension of BDP 173 and will cover advanced assembly language programming. Subject areas will include IOCS, floating point arithmetic, Macros and subroutines. Four contact hours.

+BDP 294 - FORTRAN/BASIC Programming

3 cr.

Prerequisite: BDP 172 or equivalent experience. This course will include the study of two specialized computer languages: FORTRAN and BASIC. Study with theory and application programming utilizing the college computer system. Four contact hours.

+BDP 295 - PL/I Programming

3 cr.

Prerequisite: BDP 172 and BDP 290. This course will include the study and application of PL/I as applied to business operations. Included within the curriculum will be six weeks of application programming where the student will write and run programs on the college computer system. Four contact hours.

+BDP 296 - Adv. Computing and Programming Systems

3 cr.

Prerequisite: BDP 172 and BDP 290. This course will include the study of Operating systems, data communications, MIS, Graphic displays and optical scanning equipment and applications. Four contact hours.

***BIO 101 - Life in its Biological Environment**

3 cr.

An introduction to biological structure, function, processes, principles and concepts. This course is designed to fulfill the general education requirement. Three contact hours.

***BIO 102 - Principles of Biology**

4 cr.

An introduction to biological structure, function processes, principles and concepts. Laboratory experience using plant and animal materials to reinforce the subject matter is a required part of the course. This course is designed to fulfill the general educational requirements while also fulfilling the laboratory requirement needed by many students who plan to transfer to a four-year institution. Five contact hours: three class hours and two laboratory hours.

***BIO 241 - Microbiology**

4 cr.

A study of the protista, viruses, rickettsias, and schizomycetes of medical and economic importance. Laboratory exercises introduce bacteriologic techniques and aseptic procedures using nonpathogenic organisms. Six contact hours: three class hours and three laboratory hours.

***BIO 250 - Marine Biology**

4 cr.

Suggested prerequisites: Four hours of biology. Suggested background in high school chemistry and/or physics or Chemistry 101 or permission of instructor. A comprehensive survey of marine ecosystems with emphasis on the local flora and fauna. Laboratory includes collection and identification of marine organisms. Six contact hours: three class hours and three laboratory hours.

***BLC 210 - Afro-American History and Culture to 1877**

3 cr.

A survey course dealing with the trends, institutions, events, and personalities among black people in the American past. A brief treatment of the African origin, the black man during the Revolutionary War, the development of slavery, and the black man and the Civil War and Reconstruction is presented. The origin of racism, general minority problems, cultural appreciation, and black ideas are stressed. Three contact hours.

***BLC 220 - Afro-American History and Culture from 1877**

3 cr.

A continuation of BLC 210 with special emphasis on present and future projected developments among black people. The black man and the two World Wars and their aftermath are presented as well as the roots and manifestations of the Civil Rights and Black Power movements. Three contact hours.

***BOT 101 Botany**

4 cr.

An evolutionary survey of the plant kingdom. Emphasis will be placed on principles which are applicable to all forms of plant life. Six contact hours: three class hours and three laboratory hours.

+BUW 260 - Business Law

3 cr.

The basic principles of law as related to business. Areas covered include criminal law, law of torts, contracts, employment, personal and real estate, consumer protection, consumer credit, environmental law, and community planning. Three contact hours.

+BUW 261 - Business Law

3 cr.

Recommended prerequisite: BUW 260. The legal principles involving agency, commercial paper, bailments and sales are stressed. Three contact hours.

+CGC 161 - Child Growth and Development

3 cr.

Introductory study of the physical, social, emotional, and mental development of the young child. The influence of cultural environment on development and individual differences in development are considered. Three contact hours.

+CGC 162 - Advanced Child Growth and Development

3 cr.

Prerequisite: CGC 161. Course designed to further the student's understanding of the physical, social, emotional, and mental development of the school age child up to pre-adolescence. Child guidance and behavior problems are considered. Feelings, attitudes, and values are discussed. Three contact hours.

+CGC 163 - Principles of Early Childhood Education

3 cr.

An introductory course, intended to acquaint the student with the basic principles involved in teaching the younger child. The course will include, also, working with parents and the role of the kindergarten and day care center. Three contact hours.

+CGC 164 - Overview of Preschool Curriculum

3 cr.

Prerequisite: CGC 163. Course designed to acquaint the student with the basic principles involved in guiding the preschool child in the areas of art, music, science, mathematics, language development, and social and emotional development. Three contact hours.

#CGC 165 - Music for Young Children

2 cr.

Intended for students who plan to work with young children. The course deals with basic skills needed to involve children in simple music activities. Simple instruments such as autoharp and rhythm instruments will be used. Songs, records, and other materials for group activities will be presented. Participation in musical activities with the children in the laboratory will be part of the program. Two contact hours.

#CGC 166 - Literature for Young Children

2 cr.

Course designed to acquaint the student with various forms of children's literature; to help him know literature available specifically for the young child, and to be able to select quality literature appropriate for different age groups. Authors and illustrators of children's books are also discussed. Two contact hours.

#CGC 167 - The Child and Parent in the Community

2 cr.

Course designed to help the student gain an understanding of the importance of good working relationships with adults, including parents, community leaders and members and

employers; in addition to establishing connections for effective use of community resources. Two contact hours.

#CGC 168 - Art for Young Children

2 cr.

An introduction to a wide variety of art suitable for use with young children. Course is designed to help the student understand the importance of art media in enriching opportunities for children. Lectures and demonstrations are combined with workshops where practical experience may be obtained. Two contact hours.

#CGC 282 - Science for Young Children

2 cr.

An introduction to a variety of science media for use with young children. Emphasis is placed on ways to use creative activities to stimulate learning experiences for children. Two contact hours.

#CGC 284 - New Mathematics for Young Children

2 cr.

An introduction to the newer mathematics as applied to young children. Will present number concepts, principles and properties of the rational number system as applied in the kindergarten. Two contact hours.

#CGC 285 - Introduction to Mental Retardation

2 cr.

A course designed to introduce the student to the study of the mentally retarded child. Field trips and observations will be a required part of the course. Two contact hours.

+CGC 291 - Observing and Recording Child Behavior

4 cr.

Prerequisites: CGC 162 and CGC 164. Course designed to increase objectivity and proficiency in observing and interpreting children's behavior; in addition to increase awareness of normative patterns of behavior. Lecture and observation facilities are provided for study of young children. Six contact hours: two class hours, four laboratory hours.

+CGC 292 - Supervised Student Participation

6 cr.

Prerequisite CGC 291. Course designed for participation under qualified supervision in the child care laboratory. Ten contact hours: two class hours, eight laboratory hours.

#CGC 293 - Teaching of Early Childhood Games

2 cr.

An introduction to a variety of games and activities within the physical capabilities of the young child. Actual participation of the student will give an understanding of the coordination needed by the child. Two contact hours.

***CHE 100 - Chemistry for Liberal Arts**

3 cr.

This course is designed to meet the general education requirement, in physical science, for the non-science major. It is designed especially for the student who wishes to gain an understanding of the fundamental nature of physical science from the chemical point of view. The treatment utilizes an approach to scientific concepts and methods, stressing and illustrating principle rather than merely listing phenomena. Three contact hours.

***CHE 101 - Introductory Chemistry**

4 cr.

Introduction to the principles of modern inorganic chemistry, including topics in structure of matter, gas laws, solutions, ionization, chemical equations, atomic theory, acids and bases, metals and non-metals. This course is designed for those students who have had no previous chemistry, and for those planning to major in physical education, health related fields, medical technology, and home economics, and for those in a two-year nursing program. Six contact hours: three class hours and one three-hour laboratory.

***CHE 102 - Introductory Chemistry**

4 cr.

Prerequisite: CHE 101 or equivalent. This course is a continuation of CHE 101 with an introduction to organic chemistry. Six contact hours: three class hours and one three-hour laboratory.

***CHE 110 - General Chemistry and Qualitative Analysis**

4 cr.

Prerequisite: One year of high school chemistry and two years of high school algebra or grade of "C" or better in CHE 102 or approval of instructor. This course is designed to introduce the student to modern chemical concepts. Subject matter includes modern atomic structure and periodicity, chemical bonding, states of matter, and coordination chemistry.

The laboratory work will be quantitative in nature, stressing accurate laboratory techniques. This course is designed to meet the first year college requirements for those majoring in science, engineering, pre-medical, pharmacy, and a four-year nursing program. Six contact hours: three class hours and one three-hour laboratory.

***CHE 111 - General Chemistry and Qualitative Analysis**

4 cr.

Prerequisite: Grade of "C" or better in CHE 110 or approval of instructor. This course is a continuation of CHE 110 and will stress chemical equilibrium, chemical kinetics, electro-chemistry, oxidation-reduction, and selected families of metals and non-metals. Laboratory work will include studies of ionic equilibrium in aqueous solutions and semi-micro qualitative analysis of communications. Six contact hours: three class hours and one three-hour laboratory.

+CHE 208 - Organic Chemistry for Home Economics

4 cr.

Prerequisite: CHE 101. A one semester course in the fundamentals of Organic Chemistry with emphasis on the chemistry related to foods, vitamins, fabrics, dyes, plastics as organic structural materials, pesticides, solvents, and other household or consumer products. Required for Home Economics Education majors. Four contact hours: three class hours, one laboratory hour.

***CHE 220 - Organic Chemistry I**

4 cr.

This course emphasizes the general principles and theories of organic chemistry with emphasis on classification, nomenclature, methods of preparation, characteristic reactions, stereo-chemistry and structure determination of organic compounds. Six contact hours: three class hours and one three-hour laboratory.

***CHE 221 - Organic Chemistry II**

4 cr.

Prerequisite: CHE 220. A continuation of CHE 220. Includes mechanisms of organic reactions, rearrangements, substitution reactions, carbohydrates and macromolecules. Six contact hours: three class hours and one three-hour laboratory.

***CIN 101 - Film as Art**

3 cr.

Introductory study of history and methods of motion picture production. Emphasis on artistic methods of significant motion pictures. Four contact hours.

+CIT 180 - Surveying

3 cr.

Prerequisite: APM 161. A study of the fundamentals of basic surveying together with related field work in the use of instruments and tables. Investigation and calculations regarding land area, traverses, standard deviations and errors will be emphasized. Four contact hours: two class hours; two laboratory hours.

+CLT 171 - Basic Textiles

3 cr.

A study of fabrics used for clothing and house furnishings with emphasis on fibers, yarns, constructions, designs and finishes that determine the qualities and the performance of a fabric. Use and care of fabrics and cost factors will be included. Four contact hours: two hours lecture and two hours lab.

+CLT 172 - Basic Clothing Construction

3 cr.

This course includes the selection and use of commercial patterns; simple alterations; selection, use, and care of modern sewing and pressing equipment; planning and construc-

tion of garments, and developing basic construction skills. The selection of suitable accessories will also be included. Four contact hours: two hours lecture and two hours lab.

***COM 202 - Introduction to Broadcasting**

3 cr.

An introduction to the historical, cultural, social, legal, business and career aspects of radio and television broadcasting plus an introduction to the types and sub-types of broadcast media. Five contact hours.

***COM 207 - Imaginative Writing**

3 cr.

Prerequisite: ENG 102 and consent of instructor. A course to develop the student's capacity for imaginative writing in prose and/or poetry. Critical discussion of student's work and of selected literary techniques. Individual conferences. Three contact hours.

+COR 160 - Administration of Correctional Institutions

3 cr.

Emphasis is placed on the principles of administration in the correctional setting including budgeting and financial control, recruitment and development of staff, administrative decision-making, public relations and other correctional administrative functions. Three contact hours.

+COR 161 - Introduction to Corrections

3 cr.

An examination of the total correctional process from law enforcement through the administration of justice, probation, prisons and correctional institutions, and parole. History and philosophy, career oriented. Three contact hours.

+COR 260 - Introduction to Behavior Modification

3 cr.

The basic principles of human behavior and some of the techniques of changing attitude and behavior are evaluated, and the individual and group approaches to counseling are reviewed. Corrections orientated. Three contact hours.

+COR 265 - Introduction to Special Problems in Corrections

3 cr.

Research writing and discussion of selected subject areas related to corrections, such as, correctional planning for short term offenders and misdemeanants, handling of "unusual" prisoners, classification of offenders, authority and responsibility of correctional officers, professional and legal standards. Analysis of contemporary correctional problems. Three contact hours.

+COR 280 - Correctional Custody, Jails and Detention

3 cr.

The duties and functions of the correctional officer, supervision of prisoners, discipline in a correctional institution, security, correctional treatment programs and the handling of unusual prisoners are discussed and studied in practical application. Three contact hours.

+COR 281 - Probation, Pardons and Parole

3 cr.

Probation as a judicial process and parole as an executive function are examined as community-based correctional programs and the use of pardons is reviewed. Three contact hours.

+COR 285 - Introduction to Contemporary Practices in Corrections

3 cr.

Modern trends in corrections such as, the community-based programs in work-release, half-way houses, contact program planning, as well as the therapeutic community and treatment team concept in institutions are described and evaluated. Three contact hours.

***COS 205 - Writing for Mass Communications**

3 cr.

Professionally-oriented survey course designed to provide basic instruction and practice in writing straight news, interpretive news, features, editorials and columns for newspapers and continuity for radio and television. Provides the student with basic general skills in writing for mass communications. This is not a specialty course for any single medium

but rather is a course designed to give the student an overview of writing for all types of media. Five contact hours.

#DEA 170 - Preclinical Orientation

2 cr.

This course identifies and orients the various areas in the dental specialties. A knowledge of equipment and installations, and the basic maintenance and care of equipment and instruments. A knowledge of chairside assisting. A knowledge of the name, design, and use of all instruments commonly employed in a dental office. The ability to select and prepare properly all instruments for operative, prosthetic, endodontic orthodontic, and surgical procedures in accordance with instructions from the dentist. The ability to recognize promptly the operative needs of the dentist. The ability to properly maintain a clear operating field. The ability to prepare properly all impression materials and make such available to the dentist. A knowledge of types, moulds, and shades of artificial teeth. Three contact hours.

#DEA 171 - Introduction to Practice

1 cr.

This course presents the objectives, responsibilities, and scope of service of the dental assistant in practice. A working knowledge of dental terminology. A knowledge of the Code of Ethics for dental assistants and the laws which govern the practice of dentistry. An understanding of the functions of other auxiliary dental personnel and their legal limitations. A knowledge of general housekeeping duties. One contact hour.

#DEA 174 - Dental Materials and Laboratory

2 cr.

A series of lecture-demonstrations designed to acquaint the dental assistant student with the nomenclature, characteristics, proper manipulation, and application of the materials used in the laboratory and clinical practice of dentistry. The procedures for purchasing and storage of supplies will be considered. Three contact hours.

#DEA 176 - Science for Dental Assistants

2 cr.

This course will be preceded by Anatomy and Physiology. Oral Pathology - A knowledge of etiology dental caries control. A familiarity with common periodontal diseases. Sterilization and Disinfection - An understanding of the types and uses of sterilizing agents used in the dental office and the ability to operate and maintain all types of sterilizers. Pharmacology - A knowledge of the drugs commonly used in the dental treatment and the responsibilities in the use of such drugs. A knowledge of the standards set forth by the Food and Drug Administration of the Department of Health, Education and Welfare. First Aid - A knowledge of and ability to administer first aid treatment to combat emergency situations which may occur. Three contact hours.

#DEA 195 - Dental Radiology

2 cr.

This course is designed to acquaint the student with the nature, physical behavior, biological effects, methods of control, safety precautions and the techniques for exposing, processing, and mounting x-rays. Laboratory procedures will include the application of these techniques in clinical practice. Three contact hours.

#DEA 290 - Clinical Practice I

2 cr.

Clinical chairside assisting. Ten contact hours.

#DEA 291 - Clinical Practice II

2 cr.

Continuation of DEA 290. Ten contact hours.

#DEA 295 - Office Management

2 cr.

The ability to maintain an immaculate condition in all areas of the office. The ability to receive and dismiss patients. An understanding of behavior patterns of people, parental attitudes. The ability to make appointments and maintain appointment books. Communications (telephone calls, patients and personal, new patients and emergencies, patients with a grievance, salesmen, etc.). The ability to keep financial records. The ability to main-

tain an efficient recall and patient record file. The ability to keep books and records for tax purposes. The ability to do banking. The ability to write business letters. The ability to purchase and maintain supplies. Three contact hours.

#DEA 296 - Clinical Practice III

2 cr.

Continuation of DEA 291. Fourteen contact hours.

#DEA 297 - Clinical Practice IV

3 cr.

Extern Program. Twenty contact hours.

#DEH 161 - Principles of Dental Hygiene

2 cr.

A composite course designed to introduce the first year students to the content of the dental hygiene curriculum, relation of the course to the practice of dental hygiene, to include first aid with emphasis on the treatment of dental office emergencies, personal hygiene, history and ethics of the professions, terminology, introduction to library facilities and their use and a basic pre-clinical introduction to instruments. Four contact hours: one class period and one three-hour lab.

#DEH 162 - Dental Hygiene I

4 cr.

A continuation of the Principles of Dental Hygiene with a more detailed study of all elements included plus training in the use of instruments in scaling and polishing techniques and removal of simulated deposits and accretions on the teeth of manikins. The course further includes sterilization techniques, proper tooth brushing and home care, dental health education, use of models, slides, photos, posters and dividing the class into pairs to perform oral prophylactic procedures in a clinical situation. The course will also cover dental and medical emergencies. Eight contact hours: two class periods and two three-hour labs.

#DEH 163 - Dental Hygiene II

4 cr.

A continuation of Dental Hygiene I with more detailed training on the manikin heads and student partners to include more refined use of dental instruments in scaling and polishing, dividing into pairs to practice on each other in clinical situations and preparatory training for chairside assisting. Near the end of the term the students will be introduced to their first clinical patients. Eight contact hours: two lectures and two three-hour labs.

#DEH 164 - Dental Health Education

3 cr.

Methods are employed of organizing community and school dental health programs and the role and the responsibility of the dental hygienist in the community. In addition to the community and school programs, the student gains an appreciation of dental health education on an individual and group basis, and is taught the use of training aids, charts, graphs, posters and models as a means of teaching dental health. Three contact hours.

#DEH 165 - Dental Anatomy

3 cr.

This course covers the anatomy, nomenclature, arrangement and minute structures of the human dentition and all supporting structures plus a detailed macroscopic study of deciduous and permanent teeth. In addition, emphasis is placed on organs, tissues and muscles of mastication and speech, and proper correction of abnormal oral conditions. Supplemental laboratory studies may include sketching, modeling and carving, plus the use of articulated plaster models for orientation. Four contact hours: two lecture periods and one two-hour lab.

#DEH 166 - Radiology

3 cr.

This course is designed to teach the proper use of dental x-ray equipment, including radiation safety, in the taking, processing, and mounting of dental radiographs, both intra-oral and extra-oral. The course will include the evaluation technique and the filing of dental radiographs. Four contact hours: two hours lecture and one two-hour lab.

#DEH 167 - Dental Materials

3 cr.

This course is designed to familiarize the dental hygiene student with the properties of the various materials used in dentistry with reference to the restorative and laboratory aspects of patient treatment. In addition, the role of the dental hygienist and her exposure to the manipulation and preparation of various dental materials as part of the dental health team is covered. Five contact hours: two hours lecture and one three-hour lab.

#DEH 281 - Clinical Dental Hygiene I

4 cr.

A clinical continuation plus a practical application of the lessons learned in Dental Hygiene I and II. Clinical applications are taught. Care and use of equipment and instruments, records, examinations and charting plus actual experience in providing patient services. A careful analysis of patient reception, proper operating postures, patient analysis and patient education are included with a practical application of some dental assisting techniques. Twelve contact hours: four three-hour clinics.

#DEH 282 - Clinical Dental Hygiene II

4 cr.

A continuation of Clinical Dental Hygiene I with greater emphasis on tact and management of patients, individual responsibility, achievement and responsibility toward the public, the profession and dentistry in general. Some time will be spent in various clinics, hospitals, institutions, schools, public health centers, etc., with special clinical emphasis on the role of the dental hygienist in community dental health. Twelve contact hours: four three-hour clinics.

#DEH 283 - Periodontics

3 cr.

An application and study of the general principles and an analysis of prevention and treatment of the diseases of the bone and soft tissues surrounding the teeth. Three contact hours.

#DEH 284 and 286 - Dental Hygiene Seminars I and II

1 cr.

Seminars will be utilized to review clinical performances of the students, presentations of special type cases, general review and modification of clinical procedures and methods, and for individualized instruction where indicated. One contact hour.

#DEH 285 - Community Dental Health

2 cr.

A study of the oral health problems of a group of people not normally seen as patients. Students will pre-survey a group, plan an approach to the target group, assemble resources, deliver motivational material and resurvey the group in a minimum of six weeks after the initial presentation. Four contact hours: one lecture and one three-hour lab.

#DEH 287 - Oral Histology and Embryology

2 cr.

A continuation of dental anatomy with a broadened study of the development of the face and oral cavity, cell structure and microscopic anatomy of the oral cavity. Four contact hours: one class period and one three-hour lab.

#DEH 288 - Pharmacology

3 cr.

A study of the drugs used in dentistry and dental hygiene. The first part of the course is devoted to the study of metrology, therapeutic effects, dosage, administration routes, detoxification and the chemical and physical properties of drugs. The second part is concerned with the study of the various families of drugs basic to the dental profession. Particular attention is paid to the indications and contraindications and for usage, dosage, and untoward reactions and their treatment. Three contact hours.

#DEH 289 - Oral Pathology

3 cr.

An application and study of the general principles of and an analysis of the disease processes as they apply to the body with special emphasis on the oral cavity, periodontal tissues and related structures. Stress is placed on early recognition of disease and lesions

of the mouth including various gingival and periodontal lesions, developmental anomalies, cysts, tumors, and various pathological conditions in salivary glands. Three contact hours.

3 cr.

***DRA 101 - Introduction to Theatre**

Prerequisite: none. This course is designed to acquaint the student with the historical development of the theatre and its relationship to changing social orders. The course will deal primarily with dramatic literature and acting and production methods of selected historical periods. Three contact hours.

***DRA 221 - Drama Practicum**

1 cr.

Planning and execution of production functions; scene construction and painting, props, costuming, lighting and other full technical responsibilities. Three contact hours.

+DTG 160 - Mechanical and Electrical Drafting

3 cr.

Prerequisite: DTG 170. Suggested corequisite: DTG 171. A course in mechanical and electrical drafting. Emphasis is on assembly and detail drawings of mechanical parts. Included is an introduction to electrical drafting. Six contact hours: two class hours; four laboratory hours.

+DTG 170 - Engineering Drawing

3 cr.

A survey course of the principles and practices involved in making and reading engineering drawings. Emphasis is placed on lettering, industrial symbolism, orthographic projection, and multiview representation. Six contact hours: two class hours; four laboratory hours.

+DTG 171 - Descriptive Geometry

3 cr.

Prerequisite: DTG 170. Theory and practice in solving graphic problems involving point, line, and space relationships. Six contact hours: two class hours; four laboratory hours.

+DTG 280 - Architectural Drafting

3 cr.

Prerequisite: DTG 170. A survey of the theory and practices involved in the preparation of a set of architectural plans. Emphasis is placed on the floor plan design, details, elevations and perspectives. Consideration is also given to FHA standards, site selections, and common home construction techniques. Six contact hours: two class hours; four laboratory hours.

+DTG 281 - Civil Drafting

3 cr.

Prerequisite: DTG 170. A survey course covering structural and topographical drafting. Samples of drafting for buildings, bridges, towers, and other structures will be included, teaching structural design principles. The topographical unit will include drawing maps from information obtained in a survey, by aerial photography, etc. The making of contour maps, the meaning of various symbols, and the conventions peculiar to topography will be taught. Six contact hours- two class hours; four laboratory hours.

+DTG 282 - Industrial Design

3 cr.

Prerequisite or corequisite: DTG 171. A course designed to give the student knowledge and practice in common industrial design methods. Emphasis is on elements of good design and functional and proper presentation of design. Six contact hours- two class hours; four laboratory hours.

***ECO 210 - Principles of Economics**

3 cr.

Macroeconomics. The foundations of economic analysis; theory of economic growth and stabilization; monetary theory; international trade and economic development. Three contact hours.

***ECO 211 - Principles of Economics**

3 cr.

Prerequisite: ECO 210 or consent of instructor. Microeconomics. This course includes a

study of the tools for economic analysis, the market system price theory, theory of the firm, and theories of production and distribution.

***ECO 220 - Foundations of the American Economy**

3 cr.

A survey of the American economic system and its development. The course is designed to guide the student in a practical examination of the contemporary operation of regulated capitalism in the United States. Consideration is given to business organizations, the market system, gross national product, banking and finance, problems in employment, and various other aspects of the Government's relation to the national economy. Students who have earned credit in ECO 210 or ECO 211 may not receive credit for ECO 220. Three contact hours.

***ECY 201 - The Ecological Class**

3 cr.

An interdisciplinary analysis of man's biological and social environment revealing the interaction and interrelationships among living organisms and human groups in the biosphere, their needs, values, and their institutions. Three contact hours.

***EDU 101 - Introduction to Education**

3 cr.

An introductory course in Education designed to assist the student in understanding the American educational system in terms of its development and the present organization. The student is acquainted with the problems and the rewards of the profession. Three contact hours.

***ENG 101 - English Composition**

3 cr.

A comprehensive course which embodies the fundamentals of effective expression, with emphasis on expository writing, logical and imaginative thinking, and reading for understanding and appreciation. Three contact hours.

***ENG 102 - English Composition**

3 cr.

Prerequisite: ENG 101. A continuation of ENG 101, this course includes study and practice in research writing. Three contact hours.

***ENG 105 - Communication for Today's World**

3 cr.

A comprehensive, performance-based course in which the student's reading, writing, speaking, and listening skills are evaluated and improved. Three contact hours.

***ENG 161 - Developmental Reading**

3 cr.

A reading laboratory course open to all students and designed to develop each student's skills. The mechanics of reading and the need for selecting a reading method that fits the purpose for reading will undergird an emphasis upon specific individual needs in vocabulary. Three contact hours.

+FAR 111 - Dynamics of Modern Living

3 cr.

A study of the interpersonal relationship to include personal and family problems: analysis of the basic elements involved in courtship, mate selection, engagement, marriage, parenthood, and child development. Also covered are topics such as principles of good manners and acceptable standards of social behavior, personal appearance, social customs, personality development, human relations and consideration of the various occupational opportunities within the broad field of home and family life education. Three contact hours.

#FCR 163 - Analyzing Financial Statements

3 cr.

This course is organized into two main sections: Characteristics of Financial Statements and Financial Statement Analysis. The first section serves as a useful review of basic accounting principles for those students who have studied accounting. For those who have not, this section provides the minimum accounting background necessary for profitable study of financial statement analysis. Three contact hours.

#FCR 168 - Financing Business Enterprise

3 cr.

Stress is placed on the difference between lending and investing, and on the fact that investing in a corporation and financing a corporation are different aspects of the same subject. In this course, the material is presented from the viewpoint of the corporate treasurer who must safeguard the financial future of his corporation. Three contact hours.

+FCR 181 - Principles of Bank Operation

3 cr.

This course presents the fundamentals of bank functions in a descriptive fashion so that the beginning banker may view his chosen profession in a broad (and operational) perspective. The descriptive orientation is intentional. Banking is increasingly dependent upon personnel who have the broad perspective so necessary for career advancement. Three contact hours.

#FCR 182 - The Banking Starter Series

3 cr.

This is a series of three short orientation seminars at the entry level for new bank employees. In order to earn three credits, all three seminars must be completed. Your Place in Banking - This three-hour training unit is designed to give new employees information on the functions of the various parts of a bank and the financial services offered by the commercial bank. Your Personal Finances - This three-hour training unit is designed to show new employees the best methods of managing their personal income - how to spend it, save it, and borrow against it. Your Personal Image - This nine-to-twelve-hour training unit is designed to teach new employees office courtesies, telephone etiquette, and personal grooming. Three contact hours.

#FCR 184 - Bank Letters and Reports

3 cr.

This course is designed for those bank officers, supervisors, and employees who dictate or review correspondence. Since bank letters are actually public relations documents, all persons should be familiar not only with the mechanical forms of bank letters but also with the psychological principles that help the letter writer achieve best results. The course reviews letter forms, emphasizes fundamental principles underlying modern correspondence, and examines different kinds of bank letters. Three contact hours.

+FCR 260 - Principles of Finance

3 cr.

Investment characteristics of stocks and bonds; securities market; introduction to securities analysis; commercial banks and the federal reserve system; inflation, deflation and the money supply; history and nature of money. Three contact hours.

#FCR 262 - Bank Investments

3 cr.

Because the bank's needs for primary reserves and loanable funds limit the funds available for investment, this course describes the nature of such funds and how their uses are determined. It also analyzes the primary and secondary reserve needs of commercial banks, the sources of reserves, and their random and cyclical fluctuations, showing the influence of these factors on investment policy. This analysis is followed by a study of yield changes as they affect a bank's long-term holdings. Three contact hours.

#FCR 263 - Bank Public Relations and Marketing

3 cr.

This course discusses the basis of public relations, both internal and external, and seeks simply to explain the why, the what, and some of the how of public relations and marketing. It is intended as an overview for all bankers in terms of what everyone in banking should know about the essentials of bank public relations and marketing. Three contact hours.

#FCR 264 - Credit Administration

3 cr.

This course, directed toward the executive level, concerns itself partly with a statement and a discussion of factors influencing and determining loan policy. Methods of credit investigation and analysis, credit techniques, specific credit problems and regular as well as unusual types of loans are discussed. Three contact hours.

#FCR 265 - Home Mortgage Lending

3 cr.

This course approaches the subject from the viewpoint of the mortgage loan officer who seeks to develop a sound mortgage portfolio. A picture of the mortgage market is presented first, then the acquisition of a mortgage portfolio, mortgage plans and procedures, mortgage loan processing and servicing, and finally the obligations of the mortgage loan officer in overall portfolio management. Three contact hours.

#FCR 266 - Installment Credit

3 cr.

In this course, the techniques of installment lending are presented concisely. Emphasis is placed on establishing the credit, obtaining and checking information, servicing the loan, and collecting the amounts due. Each phase of a bank's installment credit operation should be carefully scrutinized to be certain that the most efficient methods are employed, for only through an efficient operation can a bank maximize its profits on this particular kind of credit. Other topics discussed are inventory financing, special loan programs, business development and advertising, and the public relations aspect of installment lending. Three contact hours.

#FCR 267 - International Banking

3 cr.

The text is an introduction to a vast field for those working in international departments, as well as for those involved in the domestic activities of their banks. The essential objective of this course is to present the basic framework and fundamentals of international banking, how money is transferred from one country to another, how trade is financed, what the international agencies are and how they supplement the work of commercial banks, and how money is changed from one currency to another. Three contact hours.

#FCR 268 - Savings and Time Deposits

3 cr.

This course reflects a knowledge of the historical development of savings institutions and an awareness of the basic economic function of the savings process in order to clarify important differences between financial savings by individuals or organizations and real savings that appear as capital formation. Different types of financial savings are reviewed in order to describe the system of financial flows of income to capital investment. Three contact hours.

#FCR 269 - Trust Functions and Services

3 cr.

This new course presents a complete picture of the services rendered by institutions engaged in trust business. It endeavors to keep clear the distinction between business and legal aspects of trust functions. Three contact hours.

#FCR 281 - Money and Banking

3 cr.

This course stresses the practical aspects of money and banking and emphasizes the basic monetary theory needed by the banking student to apply his knowledge to his particular job. Historical treatment has been kept to a minimum. Emphasis is also placed on such problems as economic stabilization, types of spending, the role of gold, limitations of central bank control, government fiscal policy, balance of payments, and foreign exchange, showing their repercussions on the banking industry in affecting yield curves and the structuring of portfolios. Three contact hours.

#FCR 283 - Bank Management

3 cr.

This course presents new trends which have emerged in the philosophy and practice of management. The study and application of the principles outlined provide new and experienced bankers with a working knowledge of bank management. Since case study is becoming well established as an effective management learning technique, the text introduces the use of cases as a new element. Three contact hours.

+FIF 160 - Introduction to Fire Science

3 cr.

A study of the philosophical and historical backgrounds of fire protection services; the role and responsibilities of the fire service; the organization and function of federal, state,

county, and private fire protection agencies; review of municipal fire defenses, fire prevention principles, techniques of fire control, codes and ordinances; problems of the fire administrator; survey of professional fire protection career opportunities. Three contact hours.

+FIF 161 - Fire Company Organization and Procedures **3 cr.**

Principles of organization and administration in fire protection service; a study of company personnel management and training, fire equipment, communications, maintenance, budgeting, records and reports, insurance rating systems, and public relations. Three contact hours.

+FIF 162 - Fire Operations **3 cr.**

The structure and function of battalion and company as components of municipal organizations; duties and responsibilities of the company officer. Three contact hours.

+FIF 163 - Fundamentals of Fire Prevention **3 cr.**

Structure and function of the fire prevention organization; interpreting and applying code regulations; a study of the procedures and techniques of fire prevention, to include inspection, surveying and mapping, recognition and elimination of fire hazards; problems of public relations; coordination with other governmental agencies. Three contact hours.

+FIF 260 - Fire Investigation **3 cr.**

A study of the principles of fire investigation; methods of determining area of fire origin, fire cause, and fire spread; location and preservation of evidence; interrogation of witnesses; arson detection; arson laws; case preparation and court procedure; reports and records. Three contact hours.

+FIF 261 - Fire Codes and Building Construction **3 cr.**

A study of federal, state, and local laws applicable to the fire service; a survey of Fire Codes and Standards of the National Fire Protection Association and the Fire Prevention Code of the National Board of Fire Underwriters; role of the State Fire Marshal; principles and practices used in building construction. Three contact hours.

+FIF 263 - Explosive and Toxic Hazardous Materials **3 cr.**

This course is divided into two sections. The first of these deals with why materials explode, why they are unstable, and how they react with water, air, and each other. The second section explores toxicity. Three contact hours.

+FIF 264 - Fire Fighting Equipment and Apparatus **3 cr.**

Principles of pumping, construction and operation of pumps and pumping accessories, driving and pumping practices, principles and operation of aerial ladders, hydraulic systems, water supply, trouble shooting, and related subjects. Also covered are principles of the care, maintenance, and operation of fire department vehicles. Subjects covered include theory of internal combustion engines, power development and transmission, torque and horsepower, electrical and brake systems, carburetion, engine tune-up and trouble shooting, characteristics of fuels and lubricants, and other related principles of automotive vehicles. Three contact hours.

+FIF 265 - Rescue Practices **3 cr.**

Instruction is given in life saving practices pertaining to the fire company. Training for resuscitator squads and rescue equipment, the fire department's role in civil defense and other disaster acts, chemicals and diseases that affect breathing, law on first aid, and the use of breathing apparatus are included. Three contact hours.

+FIF 266 - Flammable Hazardous Materials **3 cr.**

This course presents the basic fundamentals of chemistry used in fire science; types of chemicals and processes; and laws at federal, state, and local levels pertaining to use,

storage, and transportation of chemicals. Also, topics covered include hazards of radioactives, precautions to observe in fighting fires involving hazardous materials, and laboratory demonstrations of incompatibles. Three contact hours.

+FIF 267 - Fire Fighting Tactics and Strategy

3 cr.

Basic concepts involved in fire fighting, including fire behavior, size-up, attack principles, and utilization of available manpower and equipment; preplanning fire problems. Emphasis will be on developing thinking skills in relation to crises. Three contact hours.

#FMC 171 - Office Applications

2 cr.

Prerequisite: TYG 173 or consent of instructor. Classroom practice in the use of the standard systems of filing. Practical experience with duplicating machines, transcribing machines, executive and selectric typewriters, and periphery office equipment. The course is designed to teach valuable office skills. Three contact hours: one class hour; two laboratory hours.

+FMC 173 - Calculating Machines

2 cr.

Development of skill in the operation of the ten-key adding machines, rotary, printing calculators, and electronic calculators. Content of the course is selected from realistic business forms and problems. Three contact hours: one class hour; two laboratory hours.

***FRE 101 - Beginning French I**

3 cr.

This course consists of pronunciation, grammar, conversation, exercises, reading and composition. Visual and auditory aids are employed. Four contact hours - three class hours; one laboratory hour.

***FRE 102 - Beginning French II**

3 cr.

Prerequisite: FRE 101 or equivalent. A continuation of FRE 101. Four contact hours - three class hours; one laboratory hour.

***FRE 210 - Intermediate French I**

3 cr.

Prerequisite: FRE 102 or equivalent. Reading from modern and classic French authors, grammar review, and conversation. Four contact hours - three class hours and one laboratory hour.

***FRE 211 - Intermediate French II**

3 cr.

Prerequisite: FRE 210 or equivalent. A continuation of FRE 210. Four contact hours - three class hours and one laboratory hour.

#FSM 161 - Orientation to Food Service

3 cr.

A general course intended to familiarize the student with all aspects of the food service industry. A survey of functions of different types of food service. Field trips and guest lecturers representative of local food service establishments. Three contact hours.

+FSM 162 - Basic Nutrition (Nutrition I)

3 cr.

A course emphasizing normal nutrition and the relation between good nutrition and general well being. The objective of the course is to impress the student with necessity of relating knowledge gained here to his life style. Background course for FSM 163. Three contact

#FSM 163 - Diet Therapy (Nutrition II)

3 cr.

A more scientific approach to food and nutrition and functions of the body processes. Emphasis placed on the knowledge of types of foods related to specific disorders and the implementation of special diets as prescribed by physicians. Course is closely related to practices of local hospitals. Prerequisite FSM 162. Three contact hours.

#FSM 164 - Equipment

3 cr.

A study is made of all types of institutional food service equipment as well as functional

layout and design of institutional kitchens and service areas. Field trips to a variety of local institutions included. Three contact hours.

#FSM 165 - Food Accounting and Cost Control

3 cr.

A study of the policies and procedures involved in accounting in the food service industry and the methods used for controlling food and other costs. Three contact hours.

#FSM 166 - Child Nutrition

2 cr.

A study of the specific nutritional needs of children and the effects of food on their growth and development. Emphasis will be placed on the establishment of good food habits and the methods of approaching this according to age. Menu planning for the child will also be included. Three contact hours.

#FSM 167 - Food Service in Nursing Homes

3 cr.

A study of food service operations in homes for the aged. Emphasis will be placed on therapeutic nutrition, meal planning, food purchasing and storage; selection, use, and care of equipment, basic principles of food preparation and service, sanitation and safety. Management, supervision and communication skills will be emphasized. Three contact hours.

+FSM 171 - Basic Food Preparation

3 cr.

A lecture, demonstration and laboratory course in principles of food preparation. All general categories of foods are included with standards of quality preparation and service being emphasized. Four contact hours: two hours lecture and two hours lab.

#FSM 281 - Sanitation and Safety

3 cr.

A study of the general principles of sanitary food handling and necessity of maintaining safe and sanitary facilities for the well being of the consumer as well as safe working conditions of the employees. Three contact hours.

#FSM 282 - Supervision and Management

3 cr.

A study of the principles of management particularly as they apply to the food service industry. Students will be taught the role of the supervisor or manager in organizing and directing the work of his employees and his responsibility for planning and coordinating their activities. Three contact hours.

#FSM 283 - Food Purchasing and Storage

3 cr.

A study of food purchasing procedures and policies in quantity food service operations. Students will also be taught the proper procedures for receiving, storing and controlling food and other supplies. Three contact hours.

#FSM 284 - Food Merchandising

3 cr.

A study of proper food merchandising methods, food display techniques, effective menu presentations, promotion programs, public relations and effective atmosphere. Three contact hours.

#FSM 285 - Advanced Nutrition

3 cr.

An advanced nutrition course designed to give updated scientific nutrition information and products, programs and services affecting its application in the community. A basic nutrition course is prerequisite. Three contact hours.

#FSM 291 - Quantity Food

3 cr.

Study and laboratory experience in the preparation of food in quantity. Quality standards in preparation and service, use of standardized recipes and portion control will be included. Five contact hours: one hour lecture and four hours lab.

#FSM 292 - Areas of Specialization

3 cr.

A course designed to permit the student to acquire experience in the actual operation

of the area of food service in which he desires to specialize. The class time is spent reviewing principles learned in prerequisite courses as they pertain to the area of specialization as well as discussion of the problems as they occur in the actual operation. Three contact hours.

***GEO 110 - World Geography**

3 cr.

An introductory course dealing with man's relationship to his natural environment in the various climatic, regional, and economic areas of the world, their inter-relationships and problems of conservation of natural resources. Three contact hours.

***GEO 220 - Conservation of Resources**

3 cr.

A survey of natural and human resources of the world. Special emphasis will be placed in the United States with an intensive study of the wise use and wasteful practices in the exploitation and utilization of these resources. Three contact hours.

***GER 101 - Beginning German I**

3 cr.

This course consists of pronunciation, elements of grammar, simple conversation, exercises, reading, and composition. Visual and auditory aids are employed. Four contact hours: three class hours; one laboratory hour.

***GER 102 - Beginning German II**

3 cr.

Prerequisite: GER 101 or equivalent. A continuation of GER 101. Four contact hours: three class hours; one laboratory hour.

***GER 210 - Intermediate German I**

3 cr.

Prerequisite: GER 102 or equivalent. Reading from standard German authors; careful review of grammar, conversation, and composition. Four contact hours.

***GER 211 - Intermediate German II**

3 cr.

Prerequisite: GER 210 or equivalent. A continuation of GER 210. Four contact hours.

***GEY 101 - Physical Geology**

3 cr.

Physical Geology, a science, is the study of the earth. Topics covered are: Structure and land forms, modifying agents and processes, characteristic rocks and minerals and a brief study of the surrounding atmosphere and the earth as a planet. For majors and non-majors. Three contact hours.

***GEY 121 - Historical Geology**

3 cr.

A study of the geologic history of the earth dealing with the major physical events as recorded in rock formations and with the constant evolving changes in animals and plants through time. Three contact hours.

+GME 161 - Salesmanship

3 cr.

Prerequisite: SAM 160. An introduction to the art of effective salesmanship. An analysis of types and problems of psychology of sales situations. Buying motives, customer approach, and sales techniques are studied. Three contact hours.

#GME 173 - Retail Practicum

4 cr.

Occupational experiences are provided with cooperating businesses. Twenty contact hours per week.

#GME 174 - Retail Practicum

4 cr.

A continuation of GME 173. Twenty contact hours per week.

#GME 175 - Sales Promotion

4 cr.

Designed for all types of sales personnel, covers basic methods and techniques used in sales promotion program developments, research advertising, merchandising, display,

direct mail advertising, development of effective sales talks, and demonstrations. Three contact hours.

#GME 176 - Retail Merchandising **4 cr.**

The functions of the merchandising department, inventory control systems, stock turnover, the buying functions, and sales promotions are covered. Also covered are appliances, furniture, household accessories, and other display techniques. Three contact hours.

#GME 262 Wholesaling **3 cr.**

Survey of the wholesaling structure, past and present. Analysis of the planning, operation and management of the various types of wholesaling institutions in our economy. Three contact hours.

#GME 274 - Retail Practicum **4 cr.**

A continuation of GME 283. Twenty contact hours.

#GME 281 - Marketing Practices **3 cr.**

Prerequisite: MAG 162. A continuation of MAG 162. Emphasis is placed on the study of marketing problems of the manufacturers, wholesaler, retailer, and other marketing agencies. Three contact hours.

#GME 283 - Retail Practicum **4 cr.**

A continuation of GME 174. Twenty contact hours.

***HEN 107 - Personal and Community Health** **3 cr.**

A study of health problems which are of major importance to our society. Emphasis is placed on drugs, tobacco, alcohol, sex and on general principles involved in our present understanding of health related areas. Three contact hours.

***HEN 110 - Standard First Aid** **1 cr.**

This course prepares an individual to handle most common emergencies by stressing accident prevention, early medical care, common injuries and life-saving skills. The American National Red Cross Standard First Aid Certificate is earned upon successful completion of the course. One contact hour.

***HEN 215 - Standard and Advanced First Aid** **2 cr.**

This course is designed to meet the needs of individuals who have an opportunity to give First Aid care frequently within their daily routine and/or special responsibilities. The American National Red Cross Advanced First Aid certificate is earned upon successful completion of the course. Two contact hours.

***HIS 101 - Western Civilization** **3 cr.**

A survey of the cultural beginnings of civilization and the diffusion and accumulation of culture through 1715: Ancient Egypt, Mesopotamia, Greece, Rome, Byzantium, Islam, the Medieval Period, the Renaissance, and the Protestant Revolt. Three contact hours.

***HIS 102 - Western Civilization** **3 cr.**

Modern western institutions from 1715 to the present day. Includes the developing capitalistic system; absolutism; the Enlightenment; the era of revolutions; the Constitution of the United States, the development of Democracy; the industrial revolution, nationalism, the world wars, and the cold war. Three contact hours.

***HIS 193 - Honors Survey of History** **3 cr.**

Prerequisite: Outstanding performance in HIS 101, 102, 204, or 205. Recommendation by the Department. An independent survey in one or more selected fields of History which incorporates extensive research and in-depth readings. Designed to develop interest and skill in the preparation of Historical analysis and presentation in anticipation of further studies at the senior college level in History or related fields.

- *HIS 204 - United States History** **3 cr.**
 United States History to 1865. Emphasizing the European background, Revolution, Articles of Confederation, the Constitution, problems of the new republic, sectionalism, manifest destiny, slavery and the War Between the States. Three contact hours.
- *HIS 205 - United States History** **3 cr.**
 A history of the United States from 1865 to the present. Includes the Reconstruction, growth of big business, the agrarian revolt, Latin American affairs, the Progressive Movement, the first World War, and political, economic, and world affairs since World War II. Three contact hours.
- *HIS 211 - History of the Far East** **3 cr.**
 A history of the Far East from early modern times. Three contact hours.
- *HIS 212 - History of the Americas** **3 cr.**
 A study of the nations of the Western Hemisphere, including Canada, from colonial times to the present with emphasis on Latin America. Three contact hours.
- *HIS 254 - History of Florida** **3 cr.**
 History of Florida with emphasis on the explorations, U. S. acquisitions, Convention of St. Joseph, Civil War and Reconstruction, and Florida's rapid growth in the 20th Century. Three contact hours.
- #HOL 161 - Introduction to Hospitality Management** **3 cr.**
 Introduction to the hospitality industry and management of hotels, motels, and restaurants. An orientation course designed to give the history, organization, problems and opportunities in the hotel, motel and restaurant industry. Three contact hours.
- #HOL 162 - Restaurant Operation** **3 cr.**
 The basic principles of analysis of food management problems, job analysis methods, selection, control and supervision of personnel, facilities layout, labor and food cost control, purchasing, legal problems, furniture and decor for clubs, restaurants and related institutions. Three contact hours.
- #HOL 164 - Hotel/Motel Operation** **3 cr.**
 This course is designed to acquaint the student with the operation of a hotel or motel to include front office procedures in registering, accounting for and checking out guests, promotional and sales practices, housekeeping, interior decoration, purchase of furniture, carpeting, linens and supplies, maintenance and engineering of a practical nature, facilities specifications, purchasing and storage. Three contact hours.
- #HOL 264 - Food and Beverage Control** **3 cr.**
 Presents the basic principles and procedures of effective food and beverage cost control. Includes food and beverage purchasing, receiving, and issuing; calculation of actual food and beverage cost, establishment and calculation of standards, production, planning and special control. Three contact hours.
- #HOL 267 Customer-Personnel Relations** **3 cr.**
 This course explores the various successful techniques involved in establishing effective communications and functional relationships with the customer and personnel at all levels. Three contact hours.
- #HOL 271 - Internship** **3 cr.**
 On-the-job work experience supplied by the hotel, motel and restaurant industries. Job placement will be dependent upon the students' preference and availability of participating hospitality institutions. The course consists of 15 hours per week of on-the-job instruction accompanied with one seminar each week. Students employed in the industry will be paid the on-going rate for part-time help. Eight contact hours.

#HOL 272 - Internship**3 cr.**

Prerequisite: HOL 271. This course is an extension of HOL 271. It consists of on-the-job work experience supplied by the hotel, motel and restaurant industries. Job placement will be dependent upon the students' preference and availability of participating hospitality institutions. The course consists of 15 hours per week of on-the-job instruction accompanied with one seminar each week. Students employed in the industry will be paid the on-going rate for part-time help. Eight contact hours.

HUM 182-183 - Overseas Study*8 cr.**

A humanities course offering students a five-week study/travel program centered around the cities and countries of the tour. The course will include field experiences, lectures, discussions, and other experiences in the Humanities area. The student will visit great European cities where special attention will be given to forces contributing to the culture of these nations. The student will gain an understanding and appreciation of great and vital ideas through on-site study within the political, economic, and social historical framework in art, music, literature, architecture, philosophy, and religion in the cultural heritage of western man. Will fulfill General Education requirements for Humanities.

HUM 201 - Humanities*4 cr.**

Prerequisites: ENG 101 or consent of instructor. A study of human expression, problems and values through the study of Western man's achievements in art, music, literature, and philosophy. The course provides an introduction to appreciation of the arts, letters, and critical thought through study of the ancient, medieval, and Renaissance periods. Four contact hours.

HUM 202 - Humanities*4 cr.**

A continuation of HUM 201. This course provides a study of major cultural periods from Baroque through contemporary. Four contact hours.

HUM 213 - International Understanding I*3 cr.**

Prerequisite: ENG 101 or permission of instructor. Life in the Mediterranean regions of Asia, Africa, and Europe surveyed from its beginning to the present. Man's creative expressions in the visual arts, music, literature and philosophic thought will be studied in the context of archaeology, anthropology, sociology, history, geography, and religion. Three contact hours.

HUM 214 - International Understanding II*3 cr.**

Prerequisite: ENG 101 or permission of instructor. Life in non-Mediterranean Europe surveyed from its beginning to the present. Man's creative expressions in the visual arts, music, literature, and philosophic thought will be studied in the context of archaeology, anthropology, sociology, history, geography and religion. Three contact hours.

HUM 215 - American Understanding*3 cr.**

Prerequisite: ENG 101 or permission of instructor. Life in the Americas surveyed from its beginning to the present. American creative expressions in the visual arts, music, literature, and philosophic thought will be studied as reflections of their European, African, and Indian heritage in the context of archaeology, anthropology, geography, and religion. Three contact hours.

HUM 216 - International Understanding III*3 cr.**

Prerequisite: ENG 101 or permission of instructor. Life in Asia surveyed from its beginning to the present. Man's creative expressions in the visual arts, music, literature, and philosophic thought will be studied in the context of archaeology, anthropology, sociology, history, geography and religion. Three contact hours.

HUM 282 - Fine Arts Field Trip*1 cr.**

This course involves a cultural enrichment tour of New York City or other localities and

is designed as a supplement for students currently enrolled in one or more Fine Arts courses. The trip will include visits to art galleries, museums, and musical and dramatic productions. A paper based on a cultural aspect, or aspects, of the trip is required, such paper to be due one month from the return date of the trip. Orientation material will be presented to the students well in advance of the trip, and topics for a paper will be discussed and arranged before leaving.

#IAE 101 - X-Ray Technology I

3 cr.

Prerequisite: IEL 160. Basic concepts of effects of radiation in the x-ray and gamma ray spectrum. Study of the qualities of the radiograph relative to density, contrast, and detail. Effects of radiation upon fluorescent materials and applicative to fluorescopy. Study of radiation hazards and protection. Study of x-ray tubes and their ratings. Study of the x-ray film and darkroom procedures. Techniques involved in production of radiograph. Three contact hours.

#IAE 202 - X-Ray Technology II

3 cr.

Prerequisite: XRT 101. Detailed studies of x-ray transformers and rectification, and safe handling procedures. Detailed studies of x-ray controls, including timers, stabilizers, auto-transformation, filament controls. Detailed studies of combination x-ray tables, bucky diaphragms, tube holders, and raceways for shockproof cables. Six contact hours.

#IAE 203 - X-Ray Technology III

3 cr.

Prerequisite: XRT 102. A study of the structure of matter, radioisotopes, medical applications, instrumentation, sources of error in counting, radioisotopical scanning, physics of radiation protection, safety measures, permissible dosage, radiation hygiene, artificial radioactivity, technics of application, building requirements. Six contact hours.

#IAE 204 - X-Ray Technology IV

3 cr.

Prerequisite: XRT 103. A study of installation and service problems in actual field work on diagnostic x-ray machines, radioisotopic therapeutic machines and nuclear medicine apparatus. A study of the use of radiation in non-destructive testing in the industrial field. Field trips to actual installations. Three contact hours.

#IAE 205 - X-Ray Technology V

3 cr.

Prerequisite: XRT 103. Study of television and video-tape recording in radiology. Emphasis on field work on actual installations. Studies in hospital procedures, protocol. Studies in electrical codes. Studies in radiation codes. Service problems and solutions with emphasis on actual field work. Six contact hours.

***IDS 140 - Interdisciplinary Studies Seminar**

1 cr.

The Interdisciplinary Studies Seminar is taken in conjunction with courses in the IDS program. The seminar provides a structured opportunity for students and instructors to participate in special programs, to work together in the development of IDS projects, and to interact in an interdisciplinary environment. May be repeated. Students enrolled in IDS 140 receive one credit hour each semester they enroll in the IDS program. Two contact hours.

***IDS 150 - Dynamics of Behavior**

3 cr.

Theory and practice in solving problems of inter-personal relations and self development through group and individual experiences. Three contact hours.

+IEL 160 - Fundamentals of General Electricity

3 cr.

A survey course of the electrical field covering both direct current and alternating current theory, and basic electrical elements. It is designed for the non-electrical engineering technician to provide a general knowledge of electrical phenomena. Corequisite: APM 160. Three contact hours.

+IEL 161 - D. C. Theory and Circuits **5 cr.**
Prerequisite or corequisite: APM 160. A study of the basic theory of electricity; direct current circuits, resistance, batteries, meters, magnetism, electromagnetism, inductance, and capacitance. Laboratory sessions will be devoted to applications of the theory acquired in lectures. Six contact hours: four class hours, two laboratory hours.

+IEL 162 - A. C. Theory and Circuits **5 cr.**
Prerequisites: IEL 161 and APM 160. Prerequisite or corequisite: APM 161. The study of the development and analysis of sinusoidal current and voltages, and the study of reactance, impedance networks, resonance, power, transformer action and coupled circuits. Laboratory sessions are correlated to emphasize practical application of the appropriate theoretical consideration. Six contact hours: four class hours; two laboratory hours.

+IEL 163 - Electrical Controls **3 cr.**
Prerequisite: IEL 162. The study of the operation of motors, generators, relays, and controlling systems involved in their operation and protection. Also included will be the coverage of the protection and stability of these systems. Three contact hours.

+IEL 280 - Electronics I **5 cr.**
Prerequisite: IEL 162. Physical principles of vacuum tubes and semi-conductors. A study of limiters and clamp circuits, rectifiers, power supplies, voltage doublers, amplifiers and oscillators. Laboratory sessions are devoted to building and testing the various circuits designed and studied in the theory session. Six contact hours: four class hours, two laboratory hours.

+IEL 281 - Electronics II **5 cr.**
Prerequisite: IEL 280. A study of radio frequency amplifiers, modulators, demodulators, detectors and electronic systems. Laboratory sessions are devoted to building and testing various circuits designed and studied in the theory session. Six contact hours: four class hours, two laboratory hours.

+IEL 283 - Advanced Electronic Circuit Analysis **3 cr.**
Prerequisite: IEL 162. The study of network theories, D. C. circuit analysis, filters, plot, lag and lead phase-shift networks, parallel series circuit conversions, resonance, anti-resonance, bandwidth selectivity, input and output impedance, universal resonance curve, transient analysis, and transformers. Three contact hours.

+IEL 284 - Semiconductor Circuit Design **4 cr.**
An analytical treatment of transistors and semi-conductor circuits. Topical units of instruction include semiconductor physics, junction diodes, analysis of transistor amplifier configurations, biasing and stabilization methods, and hybrid equivalent circuits. Four contact hours.

***INR 230 - International Relations** **3 cr.**
A study of the nature of the international political system with emphasis on the concepts of national interest and power with respect to the relations of nation-states; examination of the function and role of international organizations. Three contact hours.

+INS 161 - Principles of Insurance **3 cr.**
This course will seek to develop principles that can be used in understanding insurance companies, contracts, and practices. The approach will be essentially functional. Emphasis will be on the presentation principles and explanations of practices. Methods of comparing the relative cost will be presented. Three contact hours.

#INS 162 - Principles of Fire and Allied Lines **3 cr.**
Prerequisite: INS 161. This course is an introduction to the four areas of fire, ocean marine and inland marine insurance and multiple-line coverages. For each of these four areas,

specimen contracts are examined. Each area is discussed with regard to the perils, property, losses, persons, locations, time and hazards which are covered. Three contact hours.

#INS 163 - Principles of Casualty Insurance & Surety Bonding 3 cr.

Prerequisite: INS 161. This course is an introduction to the eight areas of: automobile liability and physical damage insurance; workmen's compensation and employers' liability insurance; business, professional and personal liability insurance; fidelity and surety bonds; theft coverages; multiple-line trends and coverages; health insurance; miscellaneous casualty coverages. Three contact hours.

+INS 164 - Principles of Life Insurance I 3 cr.

This course is an introduction to the principles of life insurance, the basic life insurance plans, and the more common types of individual life insurance contracts. It also includes a survey of industrial life insurance, health insurance and group life insurance; it constitutes a general survey of the major kinds of personal insurance coverages available. Three contact hours.

#INS 165 - Principles of Property Insurance Adjusting I 3 cr.

This course is an introduction to the general principles of insurance and property loss adjusting. The following areas are covered: risk and insurance; suretyship; risk management; principles of law and the insurance transaction; the insurance contract - limitations on coverage and limitation on amount of loss; the procedure, investigation, and reports of adjustment of property losses; estimating business losses. Three contact hours.

#INS 166 - Marketing Principles of Life and Health Insurance 3 cr.

A new approach toward the Life and Health Insurance industry, its products, the market potential, and the industry as a selling career. Three contact hours.

#INS 167 - Principles of Health Insurance 3 cr.

Introduction to health insurance; covers health losses and protection, expense and income coverage, and health insurance, its growth, and many areas of coverage offered by government, commercial, and Blue Cross-Blue Shield organizations. Three contact hours.

#INS 168 - Principles of Insurance and Liability Claim Adjusting 3 cr.

Corresponds to Part II of the Insurance Institute of America course in Adjusting. Examines the principles and practices of adjusting liability claims. Three contact hours.

#INS 181 - Life Company Operations 3 cr.

Corresponds to Part II of the Life Office Management Association (LOMA) Insurance Education Program. Covers life insurance home office organization, regulation, taxation, and mathematical aspects, as well as the marketing and investment functions. Three contact hours.

#INS 183 - Legal Aspects of Life Insurance 3 cr.

Corresponds to Part III of the Life Office Management Association (LOMA) Insurance Education Program. An up-to-date presentation of the law of life insurance contracts for the person whose principal interest is life insurance rather than law. Three contact hours.

#INS 281 - Life Insurance Accounting 3 cr.

Corresponds to Part IV of the Life Office Management Association (LOMA) Insurance Education Program. Covers the principles of bookkeeping and accounting as an aid in understanding the life insurance accounting practices. Three contact hours.

#INS 282 - Property Insurance Adjusting 3 cr.

Covers in more depth than previous courses in the program the subject of apportionment, insurable interest, limitation on insurer's liability, and estimating. Special consideration is given to adjustment of building, merchandise, and fixture losses, and business interrup-

tion insurance losses. Presumes a knowledge of the subject matter of INS 165 and INS 168. Three contact hours.

#INS 283 - Liability Insurance Adjusting

3 cr.

Covers the concepts of legal duty, breach of legal duty, and concepts of damages. Introduction to medical knowledge needed by adjusters, study of adjuster-lawyer and adjuster-physician relationships, and settlement of workmen's compensation claims. Presumes a knowledge of the subject matter of INS 163 and INS 168. Three contact hours.

***JOU 101 - Introduction to Journalism**

3 cr.

Prerequisite: Ability to use typewriter. An introduction to Journalism and Mass Communications. This course will include the history and development of journalism with emphasis on newspaper, radio, television and magazines. Effective personal communications will also be taught as the basis of effective mass communications. Five contact hours.

+LAE 160 - Introduction to Criminal Justice

3 cr.

Introduction to the philosophical and historical backgrounds of law enforcement. Organization, purpose and functions of law enforcement and other agencies involved in the administration of criminal justice in the United States. Career orientation. Three contact hours.

+LAE 161 - Police Organization and Administration

3 cr.

Principles of organization and administration in law enforcement; functions and activities; planning and research; public relations, personnel and training; inspection and control; records and communications, custody, etc. Three contact hours.

+LAE 162 - Police Operations

3 cr.

Principles of organization and administration as applied to operations units. Patrol functions; traffic administration; criminal investigation; intelligence and vice units; juvenile units; coordination and consolidation of police services, etc. Three contact hours.

+LAE 163 - Introduction to Criminal Behavior

3 cr.

A basic study of the nature and peculiarities of human behavior in direct relationship to crime and delinquency. Three contact hours.

+LAE 260 - Constitutional Law - Criminal Law I

3 cr.

The study of the nature, sources, and types of criminal law. Studies in the United States Constitution, Federal Statutes, and case law interpreting the United States Constitution and Federal Statutes. Three contact hours.

+LAE 262 - Introduction to Criminalistics

3 cr.

Basic course of general investigation and special criminalistic matters, including such topics as homicide; abortion; rules of evidence; testimony in court; observation and description; fingerprints; casting and molding; chemical analysis; firearms; test for intoxication, hairs and fibers; invisible radiation; documentary evidence; arrests; searches of persons and raids. Three contact hours.

+LAE 264 - Police Supervision

3 cr.

Techniques and theory of police supervision: problems of policy and procedure, instructional and disciplinary methods; motivation; supervisory investigations and reports. Performance rating. Three contact hours.

+LAE 265 - Seminar in Police Problems

3 cr.

Prerequisite: Satisfactory completion of nine hours of Police Science and Administration courses. Research, writing, and discussion of selected subject areas including foreign police agencies, industrial and retail security, and duties of various governmental regulatory agencies. Analysis of contemporary law enforcement problems. Three contact hours.

- +LAE 266 - Evidence** **3 cr.**
 Study and evaluation of evidence and proof; kinds, degrees, admissibility, competence, and weight; specifically deals with rules of evidence and procedure of particular import at the operational level in law enforcement. Three contact hours.
- +LAE 267 - Juvenile Delinquency** **3 cr.**
 Study of the major issues of crime causation, rehabilitation, and juvenile delinquency participation among the lower, middle, and upper social classes. The process of handling juvenile delinquents from confrontation with authorities, to detention, to release and after-care is covered. Three contact hours.
- +LAE 280 - State and Local Law - Criminal Law II** **3 cr.**
 Studies in the State Constitution and the Statutory and Case Law of the State of Florida. Three contact hours.
- +LAE 281 - Criminal Investigation** **3 cr.**
 Fundamental course of the more important phases of criminal investigation. Branches of crime detection dealt with are: methods of investigation; note taking; report writing; handling the crime scene, interrogations; admissions and confessions; missing persons; under-cover assignments and such specific offenses as: arson, narcotics, larceny, burglary, robbery, and forgery. Three contact hours.
- *LIT 210 - English Literature** **3 cr.**
 Prerequisite: ENG 102 or consent of LIT 210 instructor. An introduction to the main literary traditions from Beowulf through the Restoration and Eighteenth Century. A study of the best and most characteristic writings of these periods. Three contact hours.
- *LIT 211 - English Literature** **3 cr.**
 Prerequisite: ENG 102 or consent of LIT 211 instructor. An introduction to the main literary traditions from the Romantic and Victorian periods to the present. Study of the best and most characteristic writings of these periods. Three contact hours.
- *LIT 220 - American Literature** **3 cr.**
 Prerequisite: ENG 102 or consent of LIT 220 instructor. A critical study of selections from American Literature: Colonial period to the late 19th century. Three contact hours.
- *LIT 221 - American Literature** **3 cr.**
 Prerequisite: ENG 102 or consent of LIT 221 instructor. A critical study of selections from American Literature: late 19th century to the present. Three contact hours.
- *LIT 240 - Great Ideas in World Literature** **3 cr.**
 Prerequisite: ENG 102 or consent of LIT 240 instructor. A critical study of selections of ancient, medieval, and early Renaissance literature. Three contact hours.
- *LIT 241 - Great Ideas in World Literature** **3 cr.**
 Prerequisite: ENG 102 or consent of LIT 241 instructor. A critical study of selections of literature from the middle Renaissance period through the twentieth century. Three contact hours.
- *LIT 243 - The Bible as Literature** **3 cr.**
 A study of the development of the Bible in both its natural and its supernatural aspects, its influence on literature and mankind. Emphasis on the Bible's role in the modern world. Three contact hours.
- +MAG 162 - Principles of Marketing** **3 cr.**
 Prerequisite: SAM 160. The study of matching products of markets. Discussion of basic marketing functions. Emphasis will be placed on those interacting determinates of demand

which make up the marketing environment - the economic, psychological, sociological, and political factors. The legal restraints that make up the forces beyond management control but are needed in the marketing decision-making process are introduced. Three contact hours.

#MAM 282 Sales Management

3 cr.

Principles and concepts underlying the organization, operation, and control of a sales force. Topics such as the selection of personnel, recruiting, compensation plans supervision, evaluation, and stimulation of sales programs are covered. Prerequisite: MAG 162. Three contact hours.

#MAM 284 - Principles of Purchasing I

3 cr.

A comprehensive course in modern procurement practices and policies used by practicing purchasing agents. Column analysis of the fundamental purchasing principles with analytical descriptions of the latest developments and techniques. Three contact hours.

#MAM 285 - Principles of Purchasing II

3 cr.

A continuation of MAM 284 with emphasis on quality assurance, price analysis, planning and forecasting and buying capital equipment. Three contact hours.

***MAT 101 - College Mathematics**

3 cr.

Prerequisite: Two years of high school mathematics, MAT 119 or equivalent. This course is designed for the General Education mathematics requirement. Emphasis is on concepts with manipulation as a tool to reinforce these concepts. The topics include mathematical logic, set symbolism and terminology, number bases, modular arithmetic, introduction to algebra and probability, and a thorough development of the real number system. Three contact hours.

***MAT 119 - Beginning Algebra**

3 cr.

Prerequisite: Reasonable competence in arithmetic skills normally acquired by high school graduates. A modern first course in algebra for students who have never had algebra or whose level of proficiency does not meet the standard for MAT 120, intermediate algebra, or physical science. The emphasis is on fundamental concepts and structure with manipulation as a tool for reinforcement. The content of the course will include those concepts, topics, and laws of elementary algebra necessary to insure success in subsequent courses. Three contact hours.

***MAT 120 - Intermediate Algebra**

3 cr.

Prerequisite: MAT 119, with recommendation of instructor or at least one year of high school algebra and departmental approval. This course is designed to prepare students wishing to enter MAT 121 who have an inadequate or antiquated background in high school algebra. Topics include an introduction to the mathematics of sets; the complex number system; linear, fractional, radical and quadratic equations and inequalities, relations and functions and their graphical representation. Three contact hours.

***MAT 121 - College Algebra**

3 cr.

Prerequisite: MAT 120 with a grade of "C" or better; or two years of high school algebra and departmental approval. Techniques of algebra are studied with the emphasis on exact vocabulary. An analysis of the real number system is introduced to increase the depth of understanding algebra. Topics include linear and quadratic functions; systems of equations; inequalities; logarithms; induction. This course is intended for students who need more preparation for trigonometry and the calculus. No credit will be given for this course after credit has already been received in MAT 124 or the equivalent. Three contact hours.

***MAT 122 - College Trigonometry**

3 cr.

Prerequisite: MAT 121 or departmental approval. This course treats trigonometric functions as functions of real numbers with trigonometric functions of angles and vectors. It includes

identities, inverse circular functions, solutions of trigonometric equations, complex numbers, and solutions of triangles. No credit will be given for this course after credit has already been received in MAT 124, or the equivalent. Three contact hours.

***MAT 124 - College Algebra and Trigonometry**

4 cr.

Prerequisite: MAT 120 or the equivalent and departmental approval. (High school trigonometry recommended.) This is an accelerated course for the well-prepared student. The course content is consistent with that of MAT 121, College Algebra, and MAT 122, College Trigonometry. The concept of functions is the basis for the integration of the two, with the trigonometric functions developed as functions of real variables. No credit will be given for this course after credit has already been received in either MAT 121 or MAT 122, or the equivalent. Four contact hours.

***MAT 131 - Calculus with Analytic Geometry I**

4 cr.

Prerequisite: MAT 122 or MAT 124 or two years of high school algebra, one year of plane geometry, $\frac{1}{2}$ year of trigonometry, and a high score on the mathematics test with departmental approval. A course designed for the major in mathematics, science or engineering having a good foundation in algebra and trigonometry but no analytic geometry. This is an integrated differential and integral calculus course with analytic geometry and places emphasis upon the theoretical approach to mathematical analysis. Covered in the course are an introduction to analytic geometry, differentiation of algebraic expressions with applications of the derivative, and integration involving algebraic expressions, with applications. Four contact hours.

***MAT 151 - Elementary Statistics**

3 cr.

Prerequisite: MAT 121 or departmental approval. This introductory course will include the following topics: probability, random variables and probability distributions, binomial distribution, normal distribution, statistical inference, linear regression and correlation, variance and inference from small samples. The derivations of properties and the foundations and unity of concepts will be emphasized. Three contact hours.

***MAT 161 - Computer-Oriented Mathematics**

3 cr.

Prerequisite: MAT 121 or equivalent. The course presents basic ideas and methods of mathematics as oriented to the computer. It is designed to utilize a classroom computer, electronic calculators, and a logic trainer in use in the mathematics laboratory. Students will, after studying number systems, logic, Binary Boolean Algebra, numerical methods and computer mathematics, write programs in machine language for problems compatible with their own interest and areas of study for the Math-Master. While the emphasis will be on the mathematics of computers, the course will provide a foundation for further study in programming and computer science. (This course does not contain the more common computer languages.)

***MAT 204 - Modern Math for Teachers**

3 cr.

An in-service course designed to acquaint teachers with modern topics in mathematics. No prior knowledge of mathematics will be assumed and many topics of modern mathematics concepts will be presented, including set theory, structures of systems of numeration, properties of numbers, operations in bases other than ten, geometry and introduction to probability. Three contact hours.

***MAT 232 - Calculus with Analytic Geometry II**

4 cr.

Prerequisite: MAT 131 or its equivalent. A continuation of the calculus analytic geometry sequence. The course includes differentiation and integration of transcendental functions, plane analytic geometry topics, methods of integration and the algebra calculus of vectors in the plane. Four contact hours.

***MAT 233 - Calculus with Analytic Geometry III**

4 cr.

Prerequisite: MAT 232 or its equivalent. A continuation of the calculus-analytic geometry

sequences. Topics include indeterminate forms, improper integrals, polar coordinates, infinite series, solid geometry and its vectors, partial differentiation, and multiple integrals. Four contact hours.

***MAT 242 - Differential Equations** **3 cr.**

Prerequisite: MAT 233. A study of the procedure and theory of various methods of solving ordinary differential equations, which includes a development of Laplace Transforms and applications. Three contact hours.

***MET 101 - Meteorology** **3 cr.**

This is a general education course for the non-science major, one which will help to acquaint him with what causes different kinds of weather, what causes changes in weather, how these relate to climate and how different types of climates are established. Three contact hours.

+MEY 160 - Engineering Materials and Processes **4 cr.**

A survey of the basic materials used in industry, metallic and non-metallic, and the processes used to form, fabricate, and finish these materials. Five contact hours: three class hours, two laboratory hours.

+MLT 170 - Medical Laboratory Technology **5 cr.**

This course is designed to orient the student to the role of medical laboratory technology in the delivery of health care services. The basic concepts, competencies, and mechanics of laboratory maneuvers, medical bacteriology, medical parasitology and medical mycology are offered. Immunology and the acquisition of basic serological techniques are related to clinical diagnosis. Eight contact hours.

+MLT 171 - Haematology **5 cr.**

This course is designed to insure student competencies in haematology. Haematology emphasizes the hematogram and the coagulogram as diagnostic procedures. Eight contact hours.

+MLT 172 - Immunology **3 cr.**

This course is designed to insure that the student develops basic competencies in the theories, principles, and technical procedures in serology and immunohematology. Emphasis is on blood banking and its role in the delivery of health care services. Eight contact hours.

+MLT 290 - Clinical Practicum **10 cr.**

The student engages in directed clinical experience in the laboratories of Jacksonville Hospitals Education Program, in seminars, workshops and classes. The clinical phase is coordinated by the College Medical Technology Faculty. This includes supervision, scheduling, and evaluation of students. Thirty-two contact hours.

+MLT 291 - Clinical Chemistry **5 cr.**

This course is designed to afford the student opportunity to acquire the basic concepts, and the basic competencies of clinical chemistry and to develop the technical competencies applicable to the chemical analysis of body fluids. Analytical Methodology and Clinical Instrumentation are emphasized. The role of clinical chemistry in the delivery of health care is stressed. Eight contact hours.

+MLT 292 - Clinical Clerkship **16 cr.**

The student spends 40 hours per week in directed clinical experience in the laboratories of Jacksonville Hospitals Education Program, in seminars, classes and workshops. The clinical phase is coordinated by the College Medical Technology Faculty. Forty contact hours.

+MTY 280 - Elements of Applied Energy**3 cr.**

An introduction to applied thermodynamics. The study of the transformation of energy to useful work through mechanical elements: heat engines, I. C. engines, compressors, turbines, and ancillary equipment. Three contact hours.

+MTY 281 - Engineering Mechanics**4 cr.**

Corequisite: APM 161. Introduction to the basic laws and principles of mechanics. A study of force systems, principles of moments, couples, and static equilibrium. In this development, friction, centroids, moment of inertia and the concept of work, energy, and power are presented. The application of these fundamental concepts to practical engineering problems as used in structural members and machine elements is emphasized. Five contact hours.

+MTY 285 - Fluid Mechanics**3 cr.**

Prerequisite: APM 161. A general survey of the laws involving the flow of fluids, and their application to the processes, equipment and machines that are used in the energy-to-work transformation. Three contact hours.

Applied Music - Depending on the availability of qualified staff, private instruction is offered in piano, voice, organ and the orchestral instruments. The courses which follow in the 60 series, carrying 3 credits per semester for 2 half-hour lessons per week, are designed for music students majoring in Applied Music. The courses which follow in the 50 series, carrying 2 credits per semester for 2 half-hour lessons per week, are designed for music majors in their principal areas. The courses which follow in the 40 series, involving 1 half-hour lesson weekly for 1 credit per semester, are for music majors in their secondary instrument.

Instrument designations are as follows:

- A. Piano
- B. Voice
- C. Violin
- D. Viola
- E. Cello
- F. String Bass
- G. Trumpet
- H. Trombone
- J. Baritone
- K. Tuba
- M. Flute
- N. Clarinet
- P. Oboe
- Q. Bassoon
- R. Percussion
- S. Organ
- T. Saxophone
- U. Classical Guitar
- X. Other
- Y. French Horn

MUS 012 - Applied Music I - Principal Instrument*2 institutional cr.**

Prerequisite: Placement by audition before the music faculty. Two half-hour lessons, or one hour lesson per week. (See note concerning Applied Music above.)

MUS 013 - Applied Music II-Principal Instrument*2 institutional cr.**

Prerequisite: MUS 012. Two half-hour lessons, or one hour lesson per week. (See note concerning Applied Music above.)

- *MUS 015 - Repertory Class** **1 institutional cr.**
Lecture recital emphasizing literature, styles, and techniques of performance. Meeting hour may be changed to coincide with special performance time. Required of all music majors. One class or equivalent laboratory periods.
- *MUS 016 - Introduction to Music Theory** **3 institutional cr.**
A course designed for students whose background and Theory Placement Test scores indicate further preparation is needed for MUS 112. Includes work with elementary music terminology, notation, intervals, scales, chords, rhythm, sight singing, dictation, and keyboard skills. Three contact hours.
- *MUS 112 - Music Theory I** **4 cr.**
An elementary course in music theory and the principles underlying all music. A basic course including music terminology, notation, harmony, melody, and rhythm. Sight singing and ear training are included. Three class and two laboratory hours.
- *MUS 113 - Music Theory II** **4 cr.**
Prerequisite: MUS 112 or permission of instructor. A continuation of MUS 112. A basic course including music terminology, notation, harmony, melody, rhythm, and form. Sight singing and ear training included. Three class and three laboratory hours.
- *MUS 120 - Class Strings** **1 cr.**
Teaches basic performance skills on violin, viola, violin-cello, or double bass. Open to any student. Two laboratory hours.
- *MUS 121 - Class Woodwinds** **1 cr.**
Teaches basic performance skills on clarinet or flute. Open to music majors. Two laboratory hours.
- *MUS 122 - Class Brass** **1 cr.**
Teaches basic performance skills on trumpet or trombone. Open to music majors. Two laboratory hours.
- *MUS 123 - Class Percussion** **1 cr.**
Teaches basic performance skills on percussion instruments with emphasis on rudimental snare drumming. Open to Music Majors. Two laboratory hours.
- *MUS 130 - Class Voice I** **1 cr.**
For singers wishing to further their vocal skills and instrumentalists wishing a fundamental vocal knowledge. Emphasis on correct diction and tone production. Individual aid given. Two laboratory hours.
- *MUS 131 - Class Voice II** **1 cr.**
Prerequisite: MUS 130 or equivalent. A continuation of MUS 130. Two laboratory hours.
- *MUS 132 - Class Piano I** **1 cr.**
For beginning piano students meeting in groups. Emphasis placed on music reading and elementary techniques. Required of all music majors unless exempted. Two laboratory hours.
- *MUS 133 - Class Piano II** **1 cr.**
Prerequisite: MUS 132 or equivalent. A continuation of MUS 132. Three laboratory hours.
- *MUS 134 - Class Guitar** **1 cr.**
A basic course designed for students who are interested in studying classic guitar. Includes a study of the development of the instrument, past and present guitar masters, and the music literature for the guitar and technique. Two laboratory hours.

***MUS 140 - Applied Music I, Secondary Instrument** 1 cr.
One half-hour lesson per week. (See note concerning Applied Music above.)

***MUS 141 - Applied Music II, Secondary Instrument** 1 cr.
One half-hour lesson per week. (See note concerning Applied Music above.)

***MUS 150 - Applied Music I, Principal Instrument** 1 cr.
Two half-hour lessons per week. (See note concerning Applied Music.)

***MUS 151 - Applied Music II, Principal Instrument** 1 cr.
Two half-hour lessons per week. (See note concerning Applied Music.)

***MUS 160 - Applied Music I, Major Instrument** 3 cr.
Prerequisite: Placement by audition before the music faculty. Two half-hour lessons or one hour lesson per week. (See note concerning Applied Music above.)

***MUS 161 - Applied Music II, Major Instrument** 3 cr.
Prerequisite: MUS 160 or equivalent. Two half-hour lessons or one hour lesson per week. (See note concerning Applied Music above.)

***MUS 162 - Symphonic Band** 1 cr.
Open to all students of the college with permission of the instructor. All students who have had previous band experience are urged to participate. Traditional and contemporary band literature are included in the repertoire. May be elected for credit each semester. Four rehearsal periods.

***MUS 163 - Jazz-Rock Ensemble** 1 cr.
Prerequisite: Permission of the director. The repertoire includes various styles from jazz and popular literature. May be selected for credit each semester. Three rehearsal periods.

***MUS 164 - College Chorus** 1 cr.
Choral organization open to all college students. Many styles of choral music are included in the repertoires. Can be elected for credit each semester. Three rehearsal periods.

***MUS 165 - Community Chorus - Jacksonville Concert Chorale** 1 cr.
Evening chorale organization open by audition to members of the community. Repertoire includes secular and sacred major works for chorus and orchestra as well as shorter compositions. May be elected each semester for credit, or non-credit under adult education. Two hour rehearsal period.

***MUS 166 - Music Workshop** 1 cr.
Open by audition to persons interested in theatre and music in the areas of performance and technical operation. May be elected for credit each semester. One major production each term. Three rehearsal hours.

***MUS 171 - College Chorale** 1 cr.
Prerequisites: Permission of director. Before entering course: Previous choral experience and/or audition with instructor. The repertoire of the College Chorale includes the more difficult sacred and secular compositions, accompanied and unaccompanied. Can be elected for credit each semester. Five rehearsal periods.

***MUS 172 - String Ensemble** 1 cr.
Prerequisite: Permission of the instructor. All students who have experience as players of bowed string instruments are urged to audition. The standard literature for string ensembles will be performed both independently and in conjunction with other music performing organizations. Can be elected for credit each semester. Three rehearsal periods.

- *MUS 212 - Music Theory III** **4 cr.**
 Prerequisite: MUS 113 or permission of instructor. Techniques of analysis and part writing in vocal, keyboard, and instrumental styles. Advanced tertian harmony, modulation, sequence, and phrase, period, and part forms. Sight singing and ear training included. Three class and two laboratory hours.
- *MUS 213 - Theory IV** **4 cr.**
 Prerequisite: MUS 212 or permission of instructor. Altered and chromatic chords, extension of tonality, 20th century harmonic, melodic, and rhythmic styles. Advanced sight singing and ear training included. Three class and two laboratory hours.
- *MUS 216 - Keyboard Harmony** **1 cr.**
 Prerequisite: MUS 213 or permission of instructor. Development of skills at the piano. Emphasis upon harmonization of melodies, modulation, transposition, and improvisation. Required of all music majors. Two laboratory hours.
- *MUS 217 - Keyboard Harmony** **1 cr.**
 Prerequisite: MUS 216 or equivalent. A continuation of MUS 216. Two laboratory hours.
- *MUS 240 - Applied Music III, Secondary Instrument** **1 cr.**
 Prerequisite: MUS 141 or equivalent. One half-hour lesson per week. (See note concerning Applied Music.)
- *MUS 241 - Applied Music IV, Secondary Instrument** **1 cr.**
 Prerequisite: MUS 240 or equivalent. One half-hour lesson per week. (See note concerning Applied Music.)
- *MUS 250 - Applied Music III, Principal Instrument** **2 cr.**
 Prerequisite: MUS 151 or equivalent. Two half-hour lessons per week. (See note concerning Applied Music.)
- *MUS 251 - Applied Music IV, Principal Instrument** **2 cr.**
 Prerequisite: MUS 250 or equivalent. Two half-hour lessons per week. (See note concerning Applied Music.)
- *MUS 260 - Applied Music III, Major Instrument** **3 cr.**
 Prerequisite: MUS 161 or equivalent. Two half-hour lessons or one hour lesson per week. (See note concerning Applied Music above.)
- *MUS 261 - Applied Music IV, Major Instrument** **3 cr.**
 Prerequisite: MUS 260 or equivalent. Two half-hour lessons, or one hour lesson per week. (See note concerning Applied Music above.)
- *MUY 101 - Music Appreciation** **3 cr.**
 A course designed for students with little or no musical training. Combines a limited amount of training in music terminology with extensive listening. Three contact hours.
- *MUY 211 - Survey of Music History** **3 cr.**
 A study of the development of music from the early Medieval period to the present day. Emphasis upon the stylistic trends of each period. Three contact hours.
- #NUR 175 - Nursing Process I** **8 cr.**
 Corequisite: ANA 215. A study of the principles and techniques that form the foundation for all subsequent nursing courses. The four basic steps of the nursing process are assessing, planning, implementing, and evaluating the effects of nursing care to patients in all age groups. Content includes instruction in the problem-solving process, interpersonal relationships, mental health concepts, asepsis, nutrition, body mechanics, hygienic practices, pharmacology, administration of drugs, and nursing history. Sixteen contact hours:

four class periods and twelve laboratory hours scheduled on campus, in community hospitals, or in other health agencies.

#NUR 176 - Nursing Process II

8 cr.

Prerequisite: NUR 175, ANA 215, Corequisite: ANA 216. Study of the physical and psychological needs of patients in all age groups. Emphasis is placed on the essential knowledge, understandings, and skills necessary to the nursing care of patients with medical or surgical conditions. The four steps of the nursing process will be continued and a higher level of performance will be expected of students. Sixteen contact hours: four class periods and twelve hours of laboratory practice on campus, in community hospitals and other health agencies.

#NUR 293 - Nursing Process III

9 cr.

Prerequisite: ANA 215-216, NUR 175-176; Corequisite: BIO 241. This course is designed to study the physiological and psychological health problems of the family from infancy to old age. Content includes family planning, care of the mother and infant, and exploration of community resources. Emphasis is placed upon meeting the needs of patients with psychosocial problems in community-mental health and general hospital settings. Communication skills are stressed and utilized as the chief nursing tool for intervention when dealing with deviant behavioral patterns, rehabilitating and assisting individuals to find desirable coping methods. Nineteen contact hours: four class periods and fifteen hours of laboratory practice.

#NUR 294 - Nursing Process IV

9 cr.

Prerequisites: BIO 241, NUR 293. A continuation of the study of the physical and psychological nursing problems of patients from infancy to old age. The family-centered approach is used in learning the skills needed to care for sick children. The four basic steps of the nursing process will be applied to the major health problems. Emphasis is placed on medical emergencies, concepts of coronary care, problems of ventilation, rehabilitation, and community resources. Nineteen contact hours: four class hours and fifteen hours of laboratory practice in community health agencies.

***OCO 100 - Cooperative Education Seminar**

1 cr.

The seminar is designed to prepare the student for entry into the Cooperative Education Program. During the seminar the student will receive career counseling, job orientation and placement.

***OCO 101 - Cooperative Education Work Experience I**

3 cr.

The first work experience in Cooperative Education is designed to provide the student with a meaningful experience that will enhance his college education through career exploration and job training.

***OCO 201 - Cooperative Education Work Experience II**

3 cr.

The second work experience in Cooperative Education is designed to provide the student with a meaningful experience that will enhance his college education through career exploration and job training.

***PEC 122 - Beginning Wrestling**

1 cr.

The introduction of the basic takedowns, escapes, reversals, counters, breakdowns and pinning holds. Two contact hours.

***PEC 157 - Folk Dance**

1 cr.

Exploration and enjoyment of the fundamental steps, positions, and formations of the popular American and ethnic folk and round dances. Two contact hours.

***PED 101 - Archery**

1 cr.

The introduction of the basic skills and fundamental techniques with tournament practice. Two contact hours.

- *PED 102 - Beginning Badminton** **1 cr.**
 Course work is designed to cover history, scoring, basic skills, game strategy and appropriate class tournaments. Two contact hours.
- *PED 104 - Advanced Basketball** **1 cr.**
 A course designed to teach skills in basketball. This includes offensive and defensive fundamentals, strategy, rules of basketball, and application of fundamentals, strategy and rules in game situations. Two contact hours.
- *PED 106 - Beginning Bowling** **1 cr.**
 A course designed to teach the fundamental skills, techniques, and the knowledge necessary for bowling enjoyment. It will prepare the student for recreational and league bowling. Activity fee for facility, \$8.00. Two contact hours.
- *PED 112 - Beginning Golf** **1 cr.**
 A beginning course designed to teach the basic golf swing and its application to several clubs. History, rules, golfing etiquette, and simple strategy will be taught. Activity fee for facility, \$8.00. Two contact hours.
- *PED 113 - Rebound Tumbling** **1 cr.**
 The fundamental techniques of basic stunts, skills, and stunt combinations. Course content stresses safety procedures and includes mat and mini-tramp tumbling activities. Two contact hours.
- *PED 117 - Beginning Tennis** **1 cr.**
 An introductory course covering the history, scoring, game strategy, and basic skills which include footwork, forehand and backhand drives, serve, volley and lob. Two contact hours.
- *PED 118 - Intermediate Tennis** **1 cr.**
 Designed for the student who has acquired the basic skills and strategy of tennis and desires to improve his tennis game. Two contact hours.
- *PED 119 - Track Events** **1 cr.**
 The course will include an introduction to the basic skills and knowledge involved in sprinting, distance running, relays, and hurdling. Two contact hours.
- *PED 120 - Archery-Volleyball** **1 cr.**
 The introduction of the basic skills and fundamental techniques with game or tournament practice in two equal units. Two contact hours.
- *PED 124 - Circuit Training** **1 cr.**
 A planned fitness training program to increase muscular strength and endurance through a planned series of exercises. Two contact hours.
- *PED 131 - Beginning Swimming** **1 cr.**
 A course designed for the beginning or non-swimmer in which the basic skills of breath holding, floating, gliding, bobbing, and elementary rescues will be emphasized. The human, crawl, elementary back, and side strokes will be introduced. Two contact hours.
- *PED 132 - Intermediate Swimming** **1 cr.**
 Course work is designed for the student able to swim continuously for 25 yards in good form. Emphasis is placed on endurance and good form in the crawl, side, back and breast strokes. Course content includes diving, elementary water rescues and drownproofing. Two contact hours.
- *PED 135 - Life Saving** **1 cr.**
 A course designed to provide the student with the knowledge and skills to save his own

life or the life of another in the event of an emergency. Prerequisites: a) standing front dive in good form, b) surface dive of 6 feet and swim two body lengths under water, c) swim 440 yards, continuously in good form, d) tread water for one minute, e) float motionless for one minute. Two contact hours.

***PED 158 - Recreational Dance**

1 cr.

The introduction and practice of the basic dance skills for enjoyment and recreation. Course content includes round, folk, square, social, and current "Teen-age" dancing. Two contact hours.

***PED 159 - Softball-Soccer**

1 cr.

Softball will introduce the advanced skills and strategy with a background knowledge and appreciation of the history and rules of the game. The soccer unit will consist of fundamental skills and techniques, game play, and rule interpretations. Two contact hours.

***PED 160 - Recreational Games**

1 cr.

A course designed to introduce the student to the basic skills, rules, and strategy of a variety of recreational games, such as: table tennis, deck tennis, horseshoes, paddle tennis, croquet, etc. Two contact hours.

***PED 161 - Angling**

1 cr.

The course is designed to introduce the skills, techniques, and knowledge of fishing for sport. The college's lakes will afford practice in fly, bait, and spin casting. Two contact hours.

***PED 162 - Introduction to Recreational Activities**

1 cr.

A course designed to acquaint the student with the variety of recreational activities available in the community. Guest expert lecturers in activities such as scuba and skin diving, surfing, equitation, hunting, judo, riflery, water skiing, and ice-skating will discuss the fundamental skills and techniques equated with enjoyable participation. Two contact hours.

***PED 220 - Advanced Volleyball**

1 cr.

Power volleyball techniques, tactics, and strategy will be introduced to the student interested in either the competitive or recreational aspects of the game. Two contact hours.

***PEL 200 - Introduction to Physical Education**

3 cr.

Prerequisite: Sophomore standing. Designed for students interested in physical education as a profession. The course examines the place, function, and contribution of physical education within the total educational program. It also includes consideration of the history, philosophy, and problems of physical education. Three contact hours.

***PHI 201 - Introduction to Philosophy**

3 cr.

An introduction to philosophical issues organized, for the most part, on a historical basis. The student encounters some of the perennial problems of philosophy and the types of answers that have been suggested by studying the thought of selected philosophers. Three contact hours.

***PHI 210 - Introduction to Logic**

3 cr.

The course provides a general introduction to logic that combines an approximately equal emphasis on the uses and misuses of language, deductive reasoning, and inductive reasoning. Some primary objectives are to provide the student with an appreciation of the extent and limitations of human knowledge, and with tools for valid reasoning and critical thinking. Three contact hours.

***PHI 240 - Introduction to Moral and Political Philosophy**

3 cr.

A survey of the efforts made by philosophers to comprehend that portion of man's experience that is concerned with human values and obligations. The course consists, pri-

marily, of the analysis of selected writings in which philosophers attempt to do such things as characterize the most satisfactory life, specify the basis of moral responsibility, determine the testability of moral judgements, and assess the proper relation between the individual and the state. Three contact hours.

***PHS 101 - Life in its Physical Environment**

3 cr.

It is presumed that the student will have a working knowledge of arithmetic and its extension to basic algebraic formulas found in physical science; otherwise, it is suggested that the student complete MAT 119 or its equivalent. It is also suggested that the student take PHS 102 first. No prerequisites. This course is designed to acquaint the individual with the development of the physical sciences, with the integrating principles and theories in the physical sciences, with the practice of the scientific method, and with a useful knowledge of selected areas in mechanics, electricity and magnetism, periodicity and atomic structure, and nuclear phenomena. Presentation involves lectures, demonstrations, and films. The course is not designed essentially as an introductory or preparatory course for any specific physical sciences. Three contact hours.

***PHS 102 - Life in its Physical Environment**

3 cr.

No prerequisites for PHS 102. This course is designed to acquaint the student with the development of science, with the integrating principles and theories in the earth sciences, with the practice of the scientific method, and with a useful knowledge of selected areas in geology, astronomy and meteorology. Presentation involves lectures, demonstrations, and films. The course is for general education and is not designed essentially as an introductory or preparatory course for any of the specific sciences. Three contact hours.

***PHS 287 - Science Institute for Elementary Teachers**

3 cr.

A lab-oriented course designed to acquaint students with the process approach to elementary school science. Attention is given to use of equipment and materials, development of scientific processes, and review and extension of scientific knowledge. (Limited enrollment.) Three contact hours.

***PHY 100 - Introduction to Physics**

3 cr.

This course is designed as a general education course for the non-science student and not for one who is planning to major in physics or other sciences. It is a survey of man's physical environment as applied to mechanics, electricity and magnetism and modern physics. Three contact hours.

***PHY 201 - General Physics**

4 cr.

Prerequisite: MAT 121 - College Algebra or equivalent Corequisite: MAT 124 - Trigonometry or equivalent. Subject matter includes Mechanics, Heat, Thermodynamics, and Sound. Laboratory work will illustrate important principles and develop techniques. This course will stress problem-solving abilities. It is designed for those students who do not major in a physical science, mathematics or engineering area. Three class hours and one 3-hour laboratory.

***PHY 202 - General Physics**

4 cr.

Prerequisite: PHY 201. A continuation of PHY 201. Subject matter includes electricity, magnetism, light, and some areas of modern physics. Laboratory work is similar to and a continuation of the laboratory in PHY 201. Three class hours and one 3-hour laboratory.

***PHY 210 - Physics I with Calculus**

4 cr.

Prerequisite: MAT 124 - College Algebra and Geometry and Calculus I or equivalent. Subject matter includes mechanics, heat, thermodynamics, and sound. Laboratory work will illustrate important principles and develops techniques. This course uses the Calculus in the subject matter presentations and in the development of problem-solving abilities. It is designed for students in pre-engineering with above-average mathematical background. Three class hours and one 3-hour laboratory.

***PHY 211 - Physics II with Calculus**

4 cr.

Prerequisite: PHY 210. This course is a continuation of PHY 210. Subject matter includes electricity, magnetism, light and some areas of modern physics. Laboratory work is similar to and a continuation of the laboratory in PHY 210. Six contact hours: Three class hours and one 3-hour laboratory.

***POS 204 - American Federal Government**

3 cr.

A study of the theory, organization, principles, and functioning of the Federal Government, emphasizing relationship of the individual to the government. Three contact hours.

***POS 205 - State and Local Government**

3 cr.

A study of state and local forms of government in the United States. The government of Florida is used as an example of activities and patterns of state government. Responsibilities of local government at county and city levels are explored. Three contact hours.

***POS 220 - Introduction to Comparative Government**

3 cr.

An introductory study of political systems in various countries showing institutions and stressing some economic characteristics of particular systems compared with institutions and economic systems in other countries. This comparison will be related to specific countries. Three contact hours.

***PSY 111 - General Psychology**

3 cr.

An analysis of human behavior by the study of the adaptation of the individual to his physical and social environment. Three contact hours.

***PSY 214 - Educational Psychology**

3 cr.

Prerequisites: PSY 111 or consent of instructor. An indepth study of the relationships between sound psychology and educational process which will lend to the establishment of proper teaching techniques and understanding of personality dynamics of students. Three contact hours.

***PSY 241 - Human Growth and Development**

3 cr.

A study of the development of the individual throughout the life cycle, including child, adolescent and adult patterns of behavior. Attention is given to physical, intellectual, cognitive, personality and social development. Three contact hours.

***PSY 242 - Child Psychology**

3 cr.

Prerequisite: PSY 111. A developmental study is made of the normal child, from birth to the adolescent years. Practical applications are stressed, with their implications for the parent and teacher as well as for the evolving individual. Three contact hours.

***PSY 243 - Adolescent Psychology**

3 cr.

Prerequisite: PSY 111. Development in the adolescent years with emphasis on psychological problems. Three contact hours.

***REL 201 - World Religions**

3 cr.

A comparative study of world religions, including Hinduism, Buddhism, Taoism, Confucianism, Shinto, Islam, Judaism, and Christianity. Three contact hours.

***REL 210 - Religious Thought in the Old Testament**

3 cr.

A study of religious thought and instruction in the Old Testament. Attention is given to the problems of authorship, date, historical setting, and textual criticism. Three contact hours.

***REL 211 - Religious Thought in the New Testament**

3 cr.

A study of the life and teachings of Jesus, and of the beginning of church life and thought as reflected in the New Testament. Three contact hours.

- *REM 210 - Camp Counseling** **3 cr.**
 A course designed to develop leadership qualities for working with young people in a recreational situation and also to provide knowledge and skill necessary for living in, enjoying, and preserving the out-of-doors. Activity fee, \$8.00. Three contact hours and two overnight camping trips. The American Camping Association Advanced Campcraft certification is earned upon successful completion of the course.
- +RES 161 - Real Estate Principles and Practices** **3 cr.**
 The basic purpose of this course is to provide the student with a broad acquaintanceship with the basic fundamentals of real estate and to expose him to the wide ranging nature of the field. This course is required by the Real Estate Commission before application for the state exam for a salesman's license can be made. Three contact hours.
- #RES 162 - Real Estate License Law** **3 cr.**
 Prerequisite: RES 161. This course is to prepare the student for the Florida Real Estate License Exam for Salesmen, and as a reference text for Real Estate Principles and Practices. It gives the background of the law regarding the Florida Real Estate Commission and goes on to explain the operation, requirements, and procedure of the real estate office. Real Estate Principles and Practices is a prerequisite for this course. Three contact hours.
- #RES 163 - Real Estate Appraisal** **3 cr.**
 This is an intensive course that has been developed to impart a broad understanding of real property appraisal concepts and to teach technical skills employed in their applications to residential properties. It is designed to give the experienced real estate man a basic knowledge of appraisal fundamentals. Three contact hours.
- #RES 281 - Real Estate Law** **3 cr.**
 This course offers specific suggestions as to types of real estate documents, their form and contents, and the mechanics of their use and contains a full legal, detailed exposition of every aspect of modern real estate transactions. Three contact hours.
- #RES 283 - Mortgage Broker in Mortgage Lending** **3 cr.**
 This course offers an exposure to the principles and techniques of mortgage financing and brokerage operations and a background study of the Florida Mortgage Brokerage Act. Three contact hours.
- *RUS 101 - Beginning Russian I** **3 cr.**
 This course consists of pronunciation, elements of grammar, simple conversation, exercises, reading, and composition. Visual and auditory aids are employed. Four contact hours: three class hours; one laboratory hour.
- *RUS 102 - Beginning Russian II** **3 cr.**
 Prerequisites: RUS 101 or equivalent. A continuation of RUS 101. Four contact hours: three class hours; one laboratory hour.
- *RUS 210 - Intermediate Russian I** **3 cr.**
 Prerequisite: RUS 102 or equivalent. Reading from standard Russian authors; careful review of grammar, conversation, and composition. Four contact hours.
- *RUS 211 - Intermediate Russian II** **3 cr.**
 Prerequisite: RUS 210 or equivalent. A continuation of RUS 210. Four contact hours.
- +SAM 160 - Introduction to Business** **3 cr.**
 An introduction to business organization and procedure, enabling the student more intelligently to pursue advanced business courses and to choose a business career. Three contact hours.

+SAM 250 - Principles of Management

3 cr.

A detailed analysis of the management functions of planning, organizing, staffing, directing and controlling as related to business enterprise. The orderly presentation of fundamental knowledge in management provides the student with the framework for further study in the field, or the background for practical application of management principles in business and industry. Three contact hours.

+SAM 251 - Personnel Management

3 cr.

Problems, practices and policies in the management of people. Leadership, motivation and direction of employees towards management-employee-oriented goals. Employment practices. Three contact hours.

***SOC 201 - Introductory Sociology**

3 cr.

A study of sociological concepts, theories, and methods; social groups, processes, and change. Three contact hours.

***SOC 210 - Social Problems**

3 cr.

Prerequisite: SOC 201. A consideration of major social problems which affect individuals and groups in industrial societies, with special attention to American society. Three contact hours.

***SOC 220 - Marriage and Family**

3 cr.

A study of mate selection, courtship, marriage and child rearing, with special attention to the contemporary American family. Three contact hours.

***SOP 110 - Human Relations**

3 cr.

Drawing from several areas of behavioral science, the course is designed for students in business and technical fields. Also suitable for general education and personal enrichment; not recommended for the student who plans to major in psychology. Includes group dynamics, leadership, ethics, motivation and morale, social systems, formal and informal organizations, and other selected topics. Three contact hours.

***SPA 101 - Beginning Spanish I**

3 cr.

A beginning course. The fundamentals of Spanish, speech and grammar will be taught by integrating the basic communication skills of hearing and understanding, speaking, reading, and writing. Four contact hours: three class; one laboratory.

***SPA 102 - Beginning Spanish II**

3 cr.

Prerequisite: SPA 101 or equivalent. A continuation of SPA 101. Four contact hours: three class; one laboratory.

***SPA 210 - Intermediate Spanish I**

3 cr.

Prerequisite: SPA 102 or equivalent. A thorough review of the principles of grammar will be integrated with compositions and conversations planned to develop a basic active vocabulary and facility in communicating in written and spoken Spanish. Readings in Spanish will be concerned with a survey of the history and culture of Spain and Hispanic America. Four contact hours: Three class hours, one laboratory hour.

***SPA 211 - Intermediate Spanish II**

3 cr.

Prerequisite: SPA or equivalent. A continuation of SPA 210. Four contact hours: Three class hours, one laboratory hour.

***SPE 110 - Fundamentals of Speech**

3 cr.

The first course in speech is designed to give each student the opportunity to study and to practice the principles and methods of oral communication while he participates as a speaker and as a listener. Three contact hours.

1 cr.

***SPE 233 - Intercollegiate Debate**

Prerequisite: Consent of instructor. Analysis of proposition of fact, policy and definition; library research methods, formal debate structure and participation in intercollegiate debate. Three contact hours.

3 cr.

***SPE 236 - Argumentation and Debate**

Emphasis will be on the development of debate skills in four areas: (1) the format of debate, including a full brief and cases; (2) the means of argumentation; reasoning, evidence and motive appeals; (3) audience analysis and listening techniques; (4) delivery skills. Three contact hours.

3 cr.

***SPE 240 - Discussion**

Emphasis will be on the development of discussion skills in four areas: (1) the formats of discussion; (2) the means of discussion: reasoning, evidence and cooperative idea development; (3) both leadership and participation conduct; (4) audience analysis and listening techniques. Three contact hours.

3 cr.

***SPE 250 - Oral Interpretation**

Prerequisite: SPE 110 or consent of instructor. Critical analysis and appreciation of literature from both the emotional and the intellectual viewpoints. Involves the discussion and application of the techniques of oral reading of poetry, prose, and drama. Designed to enhance the student's appreciation of words, ideas, and beauty in all forms of literature. Three contact hours.

3 cr.

***SSS 101 - Origins of American Society**

An examination of the mainsprings of the civilization of the United States. The course is designed to relate America's values, institutions, and ideals to both her domestic situation and to her leadership in the world through the historical approach. Emphasis is on the concept of culture, the genesis of American Society, and primary institutions. Three contact hours.

3 cr.

***SSS 102 - Origins of American Society**

A continuation of SSS 101 with emphasis on American political institutions, American economic institutions, and America's leadership in the world. A study of the United States Constitution is included in this course. Three contact hours.

3 cr.

+STS 171 - Beginning Shorthand

Prerequisite or corequisite: TYG 172. A beginning course in the principles of Gregg with some dictation and transcription practice. (Students who have had one year of high school shorthand should enroll in STS 172 - Intermediate Shorthand). Three contact hours: one class hour, two laboratory hours.

3 cr.

+STS 172 - Intermediate Shorthand

Prerequisite: STS 171 or one year of high school shorthand (Gregg). A continuation of Beginning Shorthand with increased practice in dictation and transcription. (Students who have satisfactorily completed two years of high school shorthand should enroll in STS 290 - Advanced Shorthand.) Three contact hours.

3 cr.

+STS 290 - Advanced Shorthand

Prerequisite: STS 172 or two years of high school shorthand. This course reviews Gregg shorthand theory and develops the ability to take dictation and transcribe rapidly and accurately. Three contact hours.

3 cr.

+STS 291 - Dictation and Transcription

Prerequisite: STS 290. Accelerated dictation and transcription. Finished products emphasized. Three contact hours.

#STS 292 - Secretarial Practices

3 cr.

Prerequisite: STS 172 and TYG 173. This course is designed to increase efficiency in secretarial procedures and practices. Skills in preparing office forms and use of secretarial reference books are developed. Three contact hours.

+STS 295 - Legal Shorthand

3 cr.

Prerequisite: STS 172. Shorthand theory and dictation of legal nature. Legal vocabulary and spelling emphasized. Routine work of legal offices examined. Three contact hours.

#STS 296 - Medical Terminology

2 cr.

Development of a medical vocabulary commonly used in physicians' offices. Emphasis given to study of physiologic and anatomic terms referring to human tissues and organic systems and to use of medical dictionaries, manuals, and pharmaceutical references. Two contact hours.

+STT 282 - Testing and Strength of Materials

4 cr.

Prerequisite: MTY 281. The study of the basic concepts involved in determining the resistance of engineering materials to various loads with emphasis on the applied use of various formulae for a systematic analysis. Five contact hours: three class hours, two laboratory hours.

+STT 284 - Fabrication Processes

3 cr.

Prerequisite: MTY 281. Analysis of the methods and materials involved in the assembly of machines and structures. The study includes evaluation of the specifications and standards, stress analysis, quality control, material properties and engineering principles involved. Four contact hours - two class hours, two laboratory hours.

+TER 281 - Technical Report Writing

3 cr.

Prerequisite: ENG 101. A course of study in the proper arrangements, format, and analysis of technical data, specifications, and findings for presentation in report form. Methods and techniques for display of raw data by use of graphs and charts and charts are emphasized. Three contact hours.

+TRA 161 - Transportation and Traffic Management I

3 cr.

General introduction to the transportation field, developments leading to national legislation and federal regulation, division of territories, official descriptions, etc., scope of authority of territorial associations, factors controlling traffic flows, basis governing classification rules, principles of freight rates and tariffs and elements of rate making, shipping documents and their application, outline of special freight services, and freight claims. Three contact hours.

#TRA 162 - Transportation and Traffic Management II

3 cr.

Application of tariff circulars; construction and filing of tariffs (tariff compilation); freight rates and tariffs, special freight services, i.e., switching, terminal facilities, demurrage and storage, average agreement, reconsignment and diversion, various transit privileges; embargoes; warehousing and distribution; and materials handling. Three contact hours.

#TRA 263 - Transportation and Traffic Management III

3 cr.

Through routes and through rates; application of arbitraries and differentials; advanced milling in transit; import and export traffic; technical tariff and rate interpretation; advanced claim adjustments; and rate and classification committee procedure. Three contact hours.

#TRA 264 - Transportation and Traffic Management IV

3 cr.

A general discussion of the construction and application of the Interstate Commerce Act and practice before the Interstate Commerce Commission. Three contact hours.

#TRA 265 - Interstate Commerce Law and Practice

3 cr.

This course considers all aspects of interstate commerce law and practice. Topics include review of Interstate Commerce Act, general rules and practice, Interstate Commerce Commission, and Supreme Court cases. This course directs one toward preparation for the I.C.C. Practitioner exam. Three contact hours.

#TRA 266 - Economics of Transportation

3 cr.

This course covers developments in the transportation industry; decisions of the courts and regulatory bodies; new technological developments, railroad management policies; adjustment of rates; public policy questions; and major problem regulation. Completion of this course partially covers requirements for certification by the American Society of Transportation and Traffic. Three contact hours.

+TYG 161 - Introduction to Typewriting

2 cr.

A course designed for the student who has little or no typewriting experience. The major objectives of the course are to learn the keyboard and to develop correct typewriting techniques. Tabulations, vertical and horizontal centering, and personal letters are introduced. Three contact hours.

+TYG 172 - Beginning Typewriting

2 cr.

Prerequisite: TYG 161 or consent of the instructor. A study of the touch system of typewriting and the application of the basic skills to business letters, reports, and tabulated problems. (Students who have satisfactorily completed one year of high school typewriting should enroll in TYG 173 - Intermediate Typewriting.) Three contact hours: one class hour, two laboratory hours.

+TYG 173 - Intermediate Typewriting

2 cr.

Prerequisite: TYG 172 or one year of high school typewriting. Emphasizes speed building, improvement of basic techniques, production typing of letters, tabulation, reports, manuscripts, and office problems. Four contact hours - one class hour, three laboratory hours.

+TYG 284 - Advanced Typewriting

2 cr.

Prerequisite: TYG 173. A continuation of basic skills in speed and accuracy with emphasis on production typing including the various business forms, tabulations, and reports. Four contact hours - one class hour; three laboratory hours.

***ZOO 101 - General Zoology**

4 cr.

A survey of the animal kingdom with emphasis on taxonomy, life cycles, evolution, organ systems, and phylogenetic relationships. A representative of each of the major groups will be discussed and investigated. Three class hours and three laboratory hours.

INSTITUTIONAL CREDIT AND NON-COLLEGE CREDIT CAREER EDUCATION PROGRAMS

Institutional credit and non-college credit programs and courses are offered throughout the junior college district wherever the need and adequate facilities are located. Courses are taught in public school facilities during evening hours, in industrial plants, in commercial office buildings, on campuses and centers of Florida Junior College at Jacksonville, and other suitable locations. The length and frequency of meetings for courses differ and are determined by the type and objectives of the course.

These courses and programs offer individuals an opportunity to learn new skills leading directly to employment or to upgrade and broaden present skills to enhance occupational proficiency and opportunity for advancement.

The Division of Career Education maintains close liaison with and is assisted by program advisory committees, professional, civic, and church organizations, governmental agencies, business and industry and other groups in determining needs and providing occupational education for the community.

ADMISSION TO INSTITUTIONAL CREDIT AND NON-COLLEGE CREDIT CAREER EDUCATION PROGRAMS

An adult desiring to enroll in institutional credit and non-college credit career education programs should contact the administrator of the center or the campus offering the subjects of his choice and may be admitted if he meets the following eligibility requirements.

1. Be an adult by Florida School Law (16) years of age.
2. Have a Social Security number.
3. Furnish proof of age, if asked.
4. Complete an application for admission.

Completion of high school is not required for enrollment in *most* institutional credit and non-college credit career education programs.

SPECIFIC PROGRAMS AND COURSES

BUSINESS EDUCATION

Institutional credit and non-college credit business courses for adults are provided covering many content areas. Currently, the following courses exist, and others may be scheduled.

Basic Accounting
Business Mathematics
Basic Typewriting
Advanced Typewriting
Basic Shorthand
Advanced Shorthand
& Transcription
Bookkeeping
Office Practice
Office Machines
Machine Shorthand
Supervisory Training

DISTRIBUTIVE EDUCATION

Enrollment in Distributive Education courses is available at announced locations in the community. Consult the Director of Distributive Education for time and location of

course offerings. The following courses, and others, may be scheduled, based upon community needs.

Business Management
Hotel-Motel Management
Fire Agent Allied Lines
Establishing and Operating
New Business
Service Station Management
Warehouse Clerk
Casualty Insurance
Principles and Practices
of Insurance
Real Estate License Law
Insurance
Negotiable Instruments
Savings and Loan Principles
Insurance Rating
Real Estate Law
Credit Administration
Merchandising and Buying
Supervisory Training for
Distributive Workers
Principles of Retailing
Techniques of Selling
Cashier/Sales/Checker
Route Selling
Grocery Merchandising
(Food Distribution)
Apartment Management
Real Estate Sales Promotion
Real Estate Appraisals
Waiter-Waitress Training
Hostess Training
Hotel-Motel Front Office Procedures
Executive Housekeeping
Export and Import Practices
Traffic Management and Rates
Real Estate Principles & Practices

HEALTH RELATED EDUCATION

Enrollment in Health Occupations Education is available through the department administrators. Consult the current term course schedule for the most convenient time and location of course offerings. The following courses, and others, may be scheduled periodically.

Licensed Practical Nurse
Nurse Assistant
Medical Assistant
Surgical Technician
O.R.T. Surgical Technician

HOME ECONOMICS EDUCATION

Enrollment in Home Economics Education courses is available at approximately fifty full-time and part-time adult centers. Consult current term course schedule for the most convenient time and location of course offerings. The Home Economics area schedules the following courses, and others, periodically.

Basic Clothing Construction
Advanced Floral Design
Boutique Sewing
Child Day Care
Home Furnishings (Slipcovers,
Draperies, Bedspreads)
Management and Family Economics
Family Relationships
Custom Dressmaking
Supervised Food Service Worker
Cake Decorating
Clothing Construction
Basic Tailoring
Advanced Tailoring
Advanced Foods
Short Cuts in Meal Preparation
Catering
Accounting and Reporting
Gourmet Foods
Drapery Construction
Slipcover Construction
Furniture Re-Upholstery
Child Psychology
Nutrition
Interior Design
Floral Design
Advanced Re-Upholstery
Food Service Supervision
Homemaker's Assistant
Alterations
Basic Principles of Nutrition
Quantity Cookery
Equipment Use and Care
Organization and Management
Purchasing

INDUSTRIAL EDUCATION

The Industrial Education service area offers a variety of programs and courses which may be one of several types. Each course may vary depending upon its objective. These courses may be classified as either trade-preparatory, trade-supplementary, apprenticeship, trade-in-plant or industrial services.

The following are among Industrial Education courses scheduled by Florida Junior College at Jacksonville.

Air Conditioning, Refrigeration
and Heating Mechanics
Appliance Service
Auto Body Repair
Automotive Mechanics, Trim,
Upholstery
Blueprint Reading
Brick and Blocklaying
Building Maintenance Mechanic
Cabinet and Furniture Making
Carpentry
Commercial Art

Commercial and Private Pilot Ground
School
Cosmetology
Diesel Mechanics
Drafting
Electricity-Industrial
Electric Code
Electric Wiring
Electronics
Commercial Garment Making
Gasoline Engines Mechanics
Hydraulic Mechanics
Industrial Supervision and
Foremanship
Machine Shop Work
Operating Engineering
Painting and Decorating
Photography and Photo-
Finishing
Plumbing and Pipe Fitting
Printing
Radio Communications
Radio & Television Service
Roofing
Sheet Metal
Water & Sewage Plant
Operation - Math
Water & Sewage Plant-Related
Communication
Water & Sewage Plant-Related
Chemistry
Shoe Repair
Steel Fabricator
Tailoring
Welding
Tool and Die Blueprint Reading
Upholstering

ADULT AND CONTINUING EDUCATION PROGRAMS

The Adult and Continuing Education Division cooperates with the public schools, health and welfare groups, civic and community clubs, business and industry and other adult agencies to provide educational services.

Adults in the community have the opportunity to grow in basic knowledge, improve in home and community life, develop leadership and civic responsibilities, expand knowledge in general education, and develop creativity in the fine arts.

Adult and Continuing Education Programs are offered where there is community need and interest. Florida Junior College at Jacksonville is offering Adult Education Programs and courses in more than 100 different locations throughout Duval and Nassau Counties. Many programs, courses, and services are offered on a continuing basis. Short courses, in-service training programs, and courses of specific interest may be initiated by request from individuals and groups in the community.

Some adult education courses may be offered for institutional semester hour credit. The institutional credit hours awarded for these courses is in proportion to their contact hours which will vary depending upon the term offered.

ADMISSION TO ADULT AND CONTINUING EDUCATION PROGRAMS

An individual desiring to enroll in Adult and Continuing Education Programs should contact the administrator of the Center or Campus offering the subjects of his choice and may be admitted if he meets the following eligibility requirements:

1. Be an adult by Florida School Law (16 years of age).
2. Have a Social Security Number.
3. Furnish proof of age, if asked.
4. Complete an application for admission.
5. In addition, High School Completion Program students must:
 - A. Furnish copies of previous high school transcripts.
 - B. Show proof of withdrawal from high school.

ADULT EDUCATION

Education for adults is provided under the following departments:

1. Adult Basic Education
2. High School Completion Program
3. Continuing Education
4. High School Equivalency Diploma
5. Community Services

ADULT BASIC EDUCATION

The Adult Education Program of Florida Junior College at Jacksonville is designed to provide basic instruction in the fundamental academic areas of reading, writing, and arithmetic computation for all adults of this community with less than an eighth grade education, and who desire this type of educational training.

General instruction in the above academic areas attempts to develop basic learning skills for the adult which should enable him to continue his education at the secondary level if he desires to do so.

Included in the over-all curriculum of the Adult Basic Education Program of instruction is arithmetic, reading, and spelling, social studies, science, health, and functional citizen-

ship education.

The Adult Basic Education Program provides supportive services for its students in the areas of guidance and counseling, testing, and specialized reading needs. Enrollment in the Adult Basic Education classes is available to all adults who are sixteen (16) years of age or older and who have less than an eighth grade education. No fees of any kind are charged for enrollment.

Adult Basic Education classes are offered in more than fifty-five (55) Adult Centers, which are located in schools, churches, and other available community facilities.

Consult the current term course schedule for the most convenient location.

ADULT HIGH SCHOOL COMPLETION PROGRAM

Adults, sixteen (16) years of age or older, officially withdrawn from regular school, may choose to earn an Adult High School Diploma by taking appropriate course work. A program will be arranged by guidance counselors at any of the following locations:

- Cumberland Campus
- Downtown Center
- N. B. Forrest Evening Adult Center
- North Campus
- South Campus
- Stanton High Evening Adult Center

There is no set required amount of time necessary to earn an Adult High School Diploma. The Florida State Department of Education has established that an adult can progress at his own rate of speed and achieve credit by subject examination whenever he judges he is prepared. Thus, an adult can complete credit requirements as rapidly as he is able to prove his knowledge and skills. An adult under the age of eighteen (18) may not complete an Adult High School Diploma by credit any earlier than he would normally have completed a regular high school program.

A minimum of sixteen (16) units of credits, excluding credit in physical education, shall be required for an Adult High School Diploma. Two (2) credits of these sixteen (16) credits must be earned in each of the following areas:

1. English (2)
2. Mathematics (2)
3. Natural Science (2)
4. Social Studies (2)

An additional eight (8) credits may be accumulated from electives, service, experience, and work experience. Individual evaluation of a student's academic background and experience is required.

Adult High School Diploma Credit Programs may include a major in any of the following:

- Vocational Business
 - General Business Education
 - Secretarial Science
 - Business Machines
 - Bookkeeping
- Vocational-Technical
 - Auto Mechanics
 - Home Economics
 - Radio and Television Repair
 - Tailoring
 - Others pending
- General Education
 - College Preparatory — General
 - College Preparatory — Liberal Arts
 - College Preparatory — Science

HIGH SCHOOL EQUIVALENCY PROGRAM

This program is an intensive course of review including the five (5) major areas covered in the G.E.D. Examination and American History and Civics requirements. Consult current term course schedule for the most convenient time and location of course offerings.

Florida Junior College at Jacksonville is the designated official testing agent for the State of Florida G.E.D. Examination. Contact the Adult Center of your choice or the Florida Junior College Dean of Adult Education.

The G.E.D. Examination (General Educational Development) consists of a battery of five tests:

- Test 1 — Correctness and Effectiveness of Expression.
- Test 2 — Interpretation of Reading Materials in the Social Studies.
- Test 3 — Interpretation of Reading Materials in Natural Sciences.
- Test 4 — Interpretation of Literary Materials.
- Test 5 — General Mathematical Ability

Requirements

1. A candidate must be eighteen (18) years of age. (No candidate under the age of twenty (20) shall qualify for a high school equivalency diploma at a date earlier than six (6) months following the end of the school year in which he last attended the regular day school program.)
2. Any candidate who has reached the age of twenty (20) is qualified by age to apply for the high school equivalency diploma.
3. A candidate must be a resident of the State of Florida.
He is considered a resident of the State when he meets one or more of the following conditions:
 - (a) Has maintained a continuous residence in the State of Florida for a period of at least one (1) year.
 - (b) Owns a home or business in Florida at the time of application for the G.E.D. Tests.
 - (c) Has filed a manifestation of domicile with the Clerk of Circuit Court of his Florida County of residence.
4. Credit is required in both American History and American Government or Civics. This requirement may be met by High School transcript showing courses completed in both subjects or by demonstrating competency in these subjects by examination.
5. A candidate must make application in person.
6. A candidate must attain minimum test scores of forty (40) or above on each of five (5) G.E.D. tests, and an average standard score of forty-five (45) or above on all five of the tests.

Testing Fees and Other Charges

1. A fee of \$7.50 is payable upon application for the G.E.D. Examination.
2. A fee of \$2.00 each is payable upon application for the American History Test and Civics Test for candidates lacking high school credit in these two subjects.

Application for the G.E.D. Examination, American History Examination, and Civics Examination shall be made at the Testing Center, Building 1, Cumberland Campus, Florida Junior College at Jacksonville.

Civics, History, and G.E.D. examinations for the high school equivalency diploma are offered on various campuses on a regular schedule. For information regarding the scheduling of these examinations, contact the Registrar's Office on Cumberland Campus.

ADULT CONTINUING EDUCATION

The variety of courses offered at the full-time and part-time centers are designed to fulfill the continuing education desires and needs of the adult community.

Those courses offered for adult high school credit may be taken as a Continuing Education Course for non-credit.

Special courses may be requested by individuals and groups to meet particular needs. Requests may be made to the Campus Adult Deans' Offices of Florida Junior College at Jacksonville or to the administrators of the full-time and part-time adult centers.

COMMUNITY SERVICES

Through its program of community services, the College offers programs of study, institutes, short courses, seminars, workshops, clinics, and lectures to meet the educational needs of adult groups in the community.

Requests for such courses are encouraged by the College; consideration for such courses is based upon the level of instruction, the number of persons interested, and the availability of qualified personnel for instruction.

Adults desiring to enter adult classes or programs should apply in person at the adult center offering the subjects of their choice.

Any adult, sixteen (16) years of age or older, is eligible to apply for enrollment. Specific course requirements or limitations will be explained at the center of the individual's choice.

INSTITUTIONAL CREDIT AND NON-COLLEGE CREDIT COURSE DESCRIPTIONS

Course descriptions for institutional credit and non-college credit courses will be published each term with the institutional credit and non-college credit class schedules. These courses and programs afford many and varied educational opportunities for individuals from all walks of life. Students may contact the Dean of Adult and Continuing Education or the Dean of Career Education on the North, South or Cumberland-Downtown campuses for further information and for copies of the current class schedule and course descriptions.