

**MORGAN  
COMMUNITY  
COLLEGE**

**1976 - 1978  
GENERAL CATALOG**

**Volume V Number 1**

**Administration Offices  
300 Main Street  
Fort Morgan, Colorado 80701**

**303-867-8564**

# HUMANITIES DEPARTMENT

**HUM 201 coordinated humanities I (5)**

Prerequisite: Sophomore standing or instructor approval. Study of significant ideas of Western man as manifested in art, music, literature and philosophy.

**HUM 202 coordinated humanities II (5)**

Prerequisite: HUM 201. A continuation of HUM 201.

**HUM 203 coordinated humanities III**

(5) Prerequisite: HUM 202. Study of man and the arts with emphasis on values of art in life, music in life, literature in life and philosophy in life.

## *ENGLISH AND SPEECH*

**ENG 050 creative writing (3)**

This class is designed to be a workshop in short story writing. By studying the elements of a short story and professionally written short stories and stories written by members of the class, the student will increase his awareness of writing techniques and his proficiency in the craft of writing. An introduction to the techniques involved in writing.

**ENG 101 english (3)**

A study of the principles of communication and rhetoric. Emphasis is placed on the reading and discussion of formal essays and on writing assignments designed to teach grammar and self-expression.

**ENG 102 english (3)**

A continuation of ENG 101 with emphasis on research techniques and use of library facilities. Numerous writing assignments are required.

**ENG 104, 105, 106 college reading and study skills (2)**

A course designed to enable college students to develop proficiency in the reading study skills required of them in regular college courses. Different from a remedial growth in reading and study skills. Speed reading is incorporated into the course as well as development of reading flexibility and improvement of college study skills. Two credit hours per quarter with maximum of 4 credit hours counted toward graduation.

**ENG 125 introduction to bibliography**

(2) Introduces students to the bibliographic aspects of library materials, how to prepare a bibliography and how to use and interpret basic research and reference materials.

**ENG 275 special studies in communications and arts (1-6)**

The Special Studies course is available in each of the areas of Communications and Arts. This course provides opportunity for the serious minded student to engage in intensive study and research on a specific topic under the direction of a qualified faculty member. Conditions for electing this course will be evaluated by the Director of General Studies, who will assist in selecting an advisor and determining the amount of credit to be granted for successful completion of the work.

**COM 050 communications i (3)**

Background work is provided to help the student reach greater levels of communication. A study of usage, mechanics, and organization increases the student's effectiveness as a speaker and writer by applying the techniques of reading, writing, speaking, listening, and observing.

**COM 051 communications ii (3)**

Prerequisite: Communications 050. Building on the skills gained in Communications 050, the student writes business letters, instructions, and reports and continues to gain speaking experience through discussions and talks. Subject matter of assignments is suited to the vocational aim of the class.

**SPE 101 principles of speech (3)** This course is concerned with the principles and practices of speech making. Basically a laboratory course, it is designed to provide the student with experience in major types of public speaking and is recommended for all freshman students.

**SPE 102 discussion and debate (3)** This course is designed to provide the student with experiences in advanced forms of speech. It is open to any student who has completed Speech 101.

**SPE 201 oral interpretation (3)** A study of oral communication of literature. Application allows the learner to develop better voice characterization, diction and articulation with laboratory assistance in reading aloud of prose, poetry and historical speeches.

## **JOURNALISM**

**JOU 121 journalism i (3)** A study of the elements of journalism, including news writing methods. The class will be responsible for student publications and is open to all.

**JOU 122 journalism ii (3)** A study of the problems and methods of newspaper production with emphasis on lay-outs, deadlines and editorials. The class is open to all.

**JOU 123 feature and in-depth writing for newspapers (3)** A study of the characteristics of feature and depth reporting. Students analyze, research and write the longer features usable in MCC student publications or local media.

**JOU 221, 222, 223 journalism practicum (2 cr/quarter and 6 cr maximum)** This course is designed to provide practical experience in at least two of the following areas: newspaper, advertising, news service, sports reporting, radio, publications, photography, yearbook and consumer affairs writing.

**JOU 225 introduction to photography (3)** A basic working knowledge of camera theory and use begins this class. Then the student progresses to correct shooting techniques, black and white developing and printing.

**JOU 227 intermediate photography (3)** A continuation of the introductory class (JOU 225). Also open to students with some background in basic black and white photographic techniques.

**JOU 230 advanced photography (3)** This advanced photography class includes portrait photography, photographing children, night shots, and landscape and scenery. The remaining class time will be devoted to individual problems in print finishing, tinting, toning, and mounting.

**JOU 275 special studies in journalism (1-6)** This course provides opportunity for the serious-minded student to engage in intensive study and research on a specific topic under the direction of a qualified faculty member. Conditions for electing this course will be evaluated by the Director of General Studies, who will assist in selecting an advisor and determining the amount of credit to be granted for successful completion of the work.

# LITERATURE

- LIT 050 contemporary literature (3)** This course studies significant modern poetry, drama, short stories and novels. Most of the works range from the Thirties to modern day and include both European and American authors.
- LIT 120 great books (3)** A close study of literary classics of Western Civilization: The Odyssey, several books of the Bible are read and examination of the works of Plato, Ovid, Dante and Goethe.
- LIT 130 introduction to poetry (3)** The enjoyment and understanding of poetry through a study of techniques, selected poems and records.
- LIT 135 introduction to short story (3)** The readings and analysis of representative short stories.
- LIT 140 contemporary novel (3)** Great modern novels in English and in translation chosen for their interest and relevance to the modern reader.
- LIT 144 man's religions (2)** A course designed to acquaint students with many of the world's major religions through a study of their holy books and other literatures. The class will involve discussion, research, guest speakers and outside resources.
- LIT 216 survey of english literature i (3)** From the beginnings of English literature through the Elizabethan period, 700-1660.
- LIT 217 survey of english literature ii (3)** English literature of the Restoration, the Eighteenth Century and the Romantic period. 1660-1832.
- LIT 218 survey of english literature iii (3)** English literature from the Victorian period to the present. 1832 to present.

- LIT 225 survey of american literature i (3)** American literature from its beginning through Longfellow, emphasizing the development of ideas which have left an imprint on American life.
- LIT 226 survey of american literature ii (3)** American literature from Emerson to contemporary times.

# FINE ARTS

- ART 050 introduction to hobby arts (3)** This class introduces the student to a wide range of hobby arts not directly related to painting. Included is the study of the methods, techniques and materials used in such activities as decoupage, macrame, foiling, tie-dye, and batik.
- ART 101 color theory and design (3)** A lecture and laboratory course providing experience in basic color experiment and design and their application to pure design, decorative design, and pictorial organization.
- ART 110 ceramic sculpture (3)** A class devoted to exploring the basics of sculpture using clay as the medium. Areas of investigation include: tools and equipment, clay, processing of materials, fundamentals of clay construction, kiln operation and glazing.
- ART 115 basic drawing (3)** The basic elements and principles of beginning drawing with emphasis on visual training, technical procedures and the essentials of perspective.
- ART 125 watercolor painting (3)** Prerequisite: Color Theory and Design (ART 101). A laboratory course providing a study of basic principles and techniques of oil painting. To include exploration of still life, landscape, and portrait painting.
- ART 201 oil painting (3)** Prerequisite: Color Theory and Design (ART 101). A course providing a study of basic principles and techniques of oil painting which includes exploration of still life, landscape, and portrait painting.

**ART 215 art history (3)** Evolution of art forms through the ages to the present contemporary forms now in practice. Emphasis on the application of change to the actual life styles of man.

**ART 220 exploration of basic crafts (3)** A laboratory course for experimental work with a variety of art materials and processes. Emphasis is on creative exploration.

**ART 223 advanced watercolor (3)**  
Prerequisite: Watercolor I, Color Theory & Design.

**ART 224 advanced oil painting (3)**  
Prerequisite: Oil Painting I, Color Theory & Design. A lab course in advanced oil painting with emphasis on individual expression and further exploration of the media.

**ART 240 life drawing i (3)** Prerequisite: Basic Drawing. Lab course designed to advance drawing principles to the human figure. Course will cover essential anatomy and life work.

**ART 241 life drawing ii (3)** Prerequisite: Basic Drawing, Life Drawing I. Advanced Life Study emphasizes individual interpretation of subject, composition, media exploration.

**MUS 050 guitar, beginning (2)** Basic instruction in guitar playing, note reading, chord building and basic rhythm techniques. Class uses a modern method book which will enable one to read and understand sheet music. Designed primarily for persons who have had little previous experience with the guitar. Students must provide their own instrument and music.

**MUS 051 guitar, intermediate (2)** Class is designed for persons who have completed the Beginning Guitar instruction. This class will stress the strum and sing approach and investigate chords and accompaniments for folk and pop songs. If interest warrants, note reading will be included as part of the instruction.

**MUS 100 vocal music (1)** Chorus.

**MUS 102 small vocal ensemble (1)** Public performance for civic groups, concerts, tours, etc.

**MUS 103, 104, 105 mcc community choir i, ii, iii (2)** This class provides the music student with the opportunity to study and perform a wide-range of choral literature from the classics to the music of contemporary composers. The choir is open to all students, staff, and interested members of the community. It performs concerts on campus and in the community.

**THE 103 play production (3)** A study of the practical elements of dramatic productions either through participation in college productions or through instructor approved projects. Available all quarters, admittance by instructor approval only.

**THE 104 acting & play production (3)**

This course will offer a free wheeling plunge into theater; it will be tailored to meet the interests and number of students, with actual staging and production of one-act plays to replace most lectures. The class will sample both comedy and straight drama. Emphasis will be on developing poise and confidence with other actors and in front of an audience, and the shared sense of accomplishment which theater brings. For those who prefer to work behind the scenes in technical production, it offers a chance to develop skills in electronics, carpentry, sewing, and business management, and a sense of fellowship with those on stage.

**THE 201 introduction to theater (3)** An introduction to the theater. A basic exploration of the history and a study of the techniques of direction, acting and dramatic criticism.

# MODERN LANGUAGE

The dual intent of the Modern Language courses is (1) linguistic (active competence in the target language and consciously improved performance in English) and (2) cultural (comparative civilizations, international organizations, and U.S. involvement with other people).

**SPA 050 conversational spanish (3)** The student will learn a basic speaking knowledge of the Spanish language. Emphasis will be on pronunciation and vocabulary so that basic conversation may be adequately conducted.

**SPA 051 intermediate conversational spanish (3)** A continuation of SPA 050.

**SPA 101 spanish i (5)** Beginning Spanish with audio-lingual emphasis; pattern practices with instructor and laboratory tapes. Supplemented by cultural reader, current events from press, radio, T.V.; brief documentary films. Spanish art, music.

**SPA 102 spanish ii (5)** A continuation of Spanish 101 designed to increase vocabulary and correct grammatical usage. Selected readings will be combined with a large emphasis upon conversation.

**SPA 103 spanish iii (5)** Pre-requisite: Spanish 102, or two years recent high school Spanish, or placement test. Completes college first year pattern-drills and cultural reader, guided composition.

**GER 105 german i (5)** Elementary beginning German to provide a foundation in speaking and understanding German as well as developing a foundation in grammar.

**GER 106 german ii (5)** Pre-requisite: German 105. A continuation of German I with more emphasis on reading German.

**GER 107 german iii (5)** Pre-requisite: German 106. A continuation of German II with special emphasis on writing and reading the German language.



**FRE 101 french i (5)** A first course in the French language: pronunciation, vocabulary, grammar and conversation.

**FRE 102 french ii (5)** A continuation of French 101.

**FRE 103 french iii (5)** A continuation of French 102 including an introduction to the great literature of France.



# SCIENCE AND MATHEMATICS DEPARTMENT

## *MATHEMATICS*

**MAT 050 applied mathematics (3)**

Prerequisite: None. This course is designed for those students in career programs. Topics covered are: arithmetic operations on real numbers, ratios and variation, percentage, weights and measures, solutions of linear equations.

**MAT 051 introduction to mathematics**

(4) This course is designed for the non-mathematics major who wishes to acquire a basic understanding of the nature of mathematics. Topics covered are: systems of numeration, finite mathematics systems, sets, probability, logic and statements.

**MAT 052 applied slide rule (3)** A course for occupational majors designed to teach the use of the slide rule in solving problems which may arise in that particular occupation.

**MAT 053 elementary algebra (4)**

Prerequisite: None. The course is not open to students with one and one-half units or more of high school algebra. This course covers basic concepts and skills of beginning algebra which will serve as motivation for subsequent formalization on College Algebra. Topics covered: properties of real numbers, signed numbers, polynomials, rational expressions, solution for linear equations, and an introduction to functions.

**MAT 101 college mathematics (5)**

A course designed for students not majoring in science or math. Topics include fundamental counting principles, permutations, combinations, probability, natural numbers, binary systems, exponential growth, paradoxes, mathematical curves.

**MAT 112 college algebra (5)** Prerequisites: MAT 053 or one and one-half units of high school algebra. The course is designed to formalize previously developed concepts and to demonstrate informally further concepts and techniques necessary for subsequent study in mathematics. The course will cover elementary properties of real numbers, mathematical induction, quadratic equations, systems of equations, matrices and determinants.

**MAT 113 college trigonometry (5)** Prerequisite: College Algebra (MAT 112) or permission of the instructor. The course includes the trigonometric functions, trig identities and equations, trigonometry of triangles, complex numbers, circular functions, polar coordinates and vectors.

**MAT 114 elementary functions (5)** Prerequisite: MAT 113 or permission of the instructor. Elementary analytic geometry including the conic sections, translation and rotation of axes, and polar coordinates. An introduction to elementary functions, algebra of functions, graphing, exponential and logarithmic functions, etc.

**MAT 121 engineering slide rule (3)** Prerequisite: None. This course is for the development of skills and orderly methods of solving problems involving basic calculating techniques using the slide rule.

**MAT 130 elementary statistics (5)** Prerequisite: Introduction to Math (MAT 051) or permission of instructor. This course is designed primarily for economic and business students. Topics covered are: frequency distributions, measures of central tendency and variability, correlation, regression, and hypothesis testing.

**MAT 201 calculus i (5)** Prerequisite: College Trigonometry (MAT 113) or permission of the instructor. This course covers theorem on limits, differentiation of algebraic functions, and applications of derivatives.

**MAT 202 calculus ii (5)** Prerequisite: Calculus I (MAT 201) or permission of the instructor. Topics covered in this course include areas, volumes, exponential functions, trigonometric hyperbolic functions, integration and approximation.

**MAT 203 calculus iii (5)** Prerequisite: Calculus II (MAT 202). Topics covered in this course include conic sections, vectors and three dimensional geometry, matrices, linear transforms, surfaces and curves in three dimensions.

**MAT 275 special studies in math (1-6)**  
The Special Studies course is available in each of the areas of Science and Mathematics. This course provides opportunities for the serious minded student to engage in intensive study and research on a specific topic under the direction of a qualified faculty member. Conditions for electing this course will be evaluated by the Director of General Studies, who will assist in selecting an advisor and determining the amount of credit to be granted for successful completion of the work.





# SCIENCE

## **CHE 101 fundamental chemistry i (5)**

(Four hours lecture, two hours laboratory).

This course deals with chemical principles on an elementary level which requires no background in chemistry. It is primarily for those needing a year or less of college chemistry. When possible the relationship between chemistry, man, and his environment will be stressed. Credit will apply toward science requirements for the A.A. degree. It is not to be used as a substitute for Chemistry 121 for those working toward the A.S. degree.

## **CHE 102 fundamental chemistry ii (5)**

(Four hours lecture, two hours laboratory).

Prerequisite: Chemistry 101. This course is a continuation of Chemistry 101. It will treat such topics as quantitative relationships in chemical reactions, the gas laws, acid-base chemistry and radiochemistry.

## **CHE 103 fundamental organic chemistry (5)**

(Four hours lecture, two hours laboratory). Prerequisite: Chemistry 102. An introduction to the basic chemistry of polymers, bio-organic compounds, foods, food additives, and drugs will be discussed. A terminal course in organic chemistry.

## **CHE 121 general chemistry (5)**

A study of the fundamental theories and laws of chemistry with emphasis on the nature of the atom, chemical bonding, structure of molecules, periodic relationships, and chemical calculations. Four hours lecture and one two-hour laboratory per week.

## **CHE 122 general chemistry (5)**

Prerequisite: General Chemistry 121 or consent of instructor. A continuation of General Chemistry 121 with primary emphasis on chemical kinetics, solution chemistry, equilibrium relationships including those that apply to qualitative analysis. Four lectures or discussions per week and one 2 hour lab period per week.

## **CHE 123 general chemistry (5)**

Prerequisite: General Chemistry 122 or the consent of the instructor. A continuation of General Chemistry 122 dealing primarily with electrochemistry, descriptive chemistry, nuclear chemistry, and organic chemistry. Emphasis in the laboratory will be primarily quantitative analysis with some synthesis work. Four lectures and one 2 hour laboratory per week.

## **BIO 101 general biology (5)**

(Four hours lecture and two hours laboratory). Principles of modern animal and plant biology, introduction to molecular basis of life and organization of cells and tissues. Emphasis is placed on living systems.

## **BIO 102 general biology (5)**

Prerequisite: General Biology 101 or permission of instructor. Four hours lecture and two hours lab. An introduction to the concepts and terminology of modern botany.

## **BIO 103 general biology (5)**

Prerequisite: General Biology 102 or permission of instructor. Four hours lecture and two hours lab. Emphasis is placed on animal biology.

## **BIO 201 population and community biology (5)**

Prerequisite: BIO 103 or equivalent. This encompasses the study of community relationships and interaction with physical environment, energy flows and energy cycles, population dynamics and distribution, and population genetics.

## **BIO 202 cellular biology (5)**

Prerequisite: BIO 102 or equivalent. It includes the study of cellular architecture, energy utilization in living cells, chemical basis of cellular reproduction, the interphase cell, cellular replication, and specialization of cells in higher organisms. Three lecture periods and one four hour lab per week.

**BIO 203 cellular and developmental biology (5)** Prerequisite: BIO 202. This course encompasses the study of gametogenesis, fertilization, embryogenesis, metamorphosis, growth and control, cytoplasmic determinants and cellular differentiation, environmental influences on differentiation, regeneration, neoplasms, and aging. Three lecture periods and one four-hour lab per week.

**BIO 210 microbiology (5)** Prerequisite: BIO 103, or permission of the instructor. A study of the fundamentals, theories and applications of bacteriology as applied to the bio-medical fields. Three lecture periods and two two-hour labs per week.

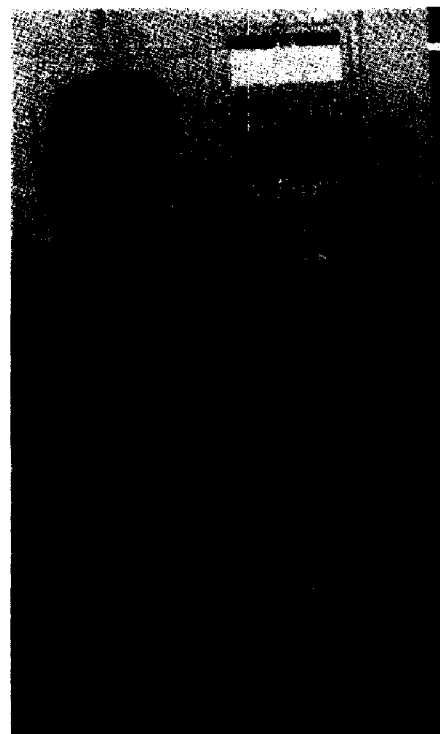
**BIO 211 introduction to physiology (5)** Prerequisite: CHE 121, General Chemistry. Physiology of all the major systems, i.e., nervous, muscular, respiratory, cardiovascular, digestive, excretory, and reproductive.

**PHY 101 introduction to astronomy (5)** A course for the non-science major. An introduction to all phases of astronomy and to modern cosmology.

**PHY 104 college physics (5)** A noncalculus study of kinematics, linear and rotational dynamics, conservation of energy and momentum, and topics in special relativity. (4 hours of lecture and 2 hours of laboratory per week).

**PHY 105 college physics (5)** Prerequisite: PHY 104 or equivalent. A continuation of PHY 104. Topics include properties of matter, wave motion, thermal phenomena, optics, and electricity and magnetism. (4 hours of lecture and 2 hours of laboratory per week).

**PHY 106 college physics (5)** Prerequisite: PHY 105. A continuation of PHY 105. Topics include atomic and nuclear structure, behavior of gases, liquids, and solids oscillations, electromagnetic waves, and matter waves. (4 hours of lecture and 2 hours of laboratory per week).



**SCI 100 the metric system (3)** All basic aspects of measurement using metric units will be considered including measurement of length and distance, volume and capacity, mass and weight, angle and rotation, area, temperature, time and speed. There will be extensive "hands-on" practice using metric measuring devices.

**SCI 275 special studies in science (1-6)** The Special Studies course is available in each of the areas of Science. This course provides opportunities for the serious minded student to engage in intensive study and research on a specific topic under the direction of a qualified faculty member. Conditions for electing this course will be evaluated by the Director of General Studies, who will assist in selecting an advisor and determining the amount of credit to be granted for successful completion of the work.

# SOCIAL SCIENCE DEPARTMENT

## PSYCHOLOGY

**PSY 050 i'm o.k. - you're o.k. (2)** This course will be an introduction to transactional analysis. The class will be helpful for anyone working with people to include teachers, counselors, sales people, etc. Parents will be interested since the course will help with parent-child relationships. The class is designed to give the student a working knowledge of transactional analysis techniques described in *Games People Play* by Dr. Eric Burn and *I'm O.K. - You're O.K.* by Dr. Thomas Harris.

**PSY 100 human relations (4)** This course is designed primarily for career program students. Included in this course are the problems of life adjustment, development of normal and abnormal patterns, reaction patterns of daily life, review of frustrations, conflicts of reaction, and basic motivational theory.

**PSY 101 general psychology (3)** An introduction to psychology covering the following topics: perceptual processes, growth and development, learning and motivation.

**PSY 102 general psychology (3)** An extension of PSY 101, covering the following topics: personality theory, physiological psychology, socialization, intelligence and a survey of current orientations in psychology.

**PSY 103 general psychology (3)** A special class in psychology covering the following topics: abnormal behavior and related therapies including parapsychology, bio-feedback, group movement, etc.

**PSY 105, 106, 109 child & adolescent psychology (3)** This course is designed to assist parents, teachers, prospective parents and persons who run child day care centers to understand and guide the physical, mental, social and emotional development of children and youth. Total psychological development from infancy to maturity is emphasized.

The course is designed to cover three quarters of work. The first quarter will cover the pre-school and elementary age. The second quarter will emphasize adolescence, self-concept, and school achievement, and quarter three will involve emphasis on the parental role.

**PSY 107 psychology of personal adjustment (3)** Psychological basis of group behavior, including individual and group social adjustments. How the individual can deal with current issues and communication among people.

**PSY 108 marriage and the family (3)** A functional approach to education for marriage, what it means to be married, the making of a family, and the nature of family life yesterday, today and in the future.

**PSY 110 personal use psychology (1)** A course designed to encourage students to look at themselves, their goals and what they expect from college. Class members are encouraged to discuss problems which they face as individuals and as new students. Additional topics for discussion include drugs, venereal disease, sexual relationships, dealing with college-related problems, etc.

**PSY 275 special studies in behavioral & social science (1-6)** The special studies course is available in each of the areas in the Behavioral and Social Science. This course provides opportunity for the serious minded student to engage in intensive study and research on a specific topic under the direction of a qualified faculty member. Conditions for electing this course will be evaluated by the Director of General Studies, who will assist in selecting an advisor and determining the amount of credit to be granted for successful completion of the work.

## ***ECONOMICS***

**ECO 101 economics (3)** An introduction to the principles and nature of economics, resources and business organization: government finance, and money and banking.

**ECO 102 economics (3)** Prerequisite: ECO 101. National income and employment, general price levels, government spending, pricing, and the allocation of resources.

**ECO 103 economics (3)** Prerequisite: ECO 102. Distribution of income, labor relations, international economics; and economic growth and development.

## ***SOCIOLOGY***

**SOC 104 principles of sociology (3)** An examination of problems involved in establishing a science of human behavior and society; a critical analysis of selected sociological concepts. Special attention is given to the development of elementary research skills.

**SOC 105 urban sociology (3)** Population, spatial and social patterns characteristic of modern urban communities. Trends and problems in urban communities such as out-migration and urban blight.

**SOC 106 social problems (3)** Social change, social disorganization, group and individual deviation. Social movements and how they develop, process of formation and change, and the relation to personal and social problems; the nature, origin and types of social problems.

**SOC 107 contemporary problems (3)** An open-ended seminar type of class on social issues designed to stimulate discussion and participation in selected topics. The class will explore historical, current, and future events relevant to the local geographic area. Related issues of social, cultural, political and personal concerns will be included.

**SOC 108 political science (3)** This course is an introduction to the study of politics, covering the political system and its environment. It is designed to familiarize the student with the basic concepts of political science, features of the political process, types of political institutions, and political behavior.

**SOC 109 women - society and change (3)** Analysis of the changing roles of women in modern society. Special attention will be given to changes in sex role differentiation, female socialization and opportunity and their consequences for major institutions and power structures in modern society.

**SOC 110 contemporary problems ii (3)** Expansion of topics covered in SOC 107.

# ANTHRO- POLOGY

**ANT 121 anthropology (5)** Introduction to physical and cultural anthropology. Topics covered will include the evolution of man and his taxonomic relationships to other animals, cultures of prehistoric man, and studies of language, economic structure, social organization, government, art, and religion in various societies.

**ANT 201 prehistory of the mediterranean world (5)** Prerequisite: General Anthropology 121 or permission of the instructor. Studies focusing on early man in the Mediterranean area, and on the development of selected cultures in Europe, the Middle East, and Northern Africa, and on the process of urbanization, the disappearance of truly primitive peoples, and the emergence of the peasant.

## HISTORY

**HIS 103 western civilization (3)** The beginnings of western civilization in Ancient Greece and Rome with emphasis on the cultural, political and economic history of the societies, and the origins of Christianity through the Middle Ages.

**HIS 104 western civilization (3)** History of the West from the Renaissance through the French Revolution and Napoleon, with emphasis on the origins of modern economical, political and cultural institutions.



**HIS 105 western civilization (3)** Western World History from 1815 to the present with emphasis on the "isms" of 19th century Europe (nationalism, liberalism) the drift toward World War I, post war Europe, World War II and the dynamics of our changing contemporary world.

**HIS 106 history of the western united states (2)** This survey covers the history of the Western U.S. beginning with prehistoric times and progressing through the Indians, the Spanish explorers, the fur trappers, the settlers, the gold and silver rushes, and the railroads. Correlations are pursued, linking the influence of early times with the modern era.

**HIS 107 history of colorado (3)** The study of Colorado's past is not only an exciting local adventure, but also a fascinating historical introduction to the panorama of the Rocky Mountain West. The course deals with the pattern of living from the time of the prehistoric cliff dwellers to the present day.

**HIS 108 history of morgan county (2)** Guest speakers and resource persons highlight this discussion of the History of Morgan County. Lectures and seminar sessions will provide the student with the opportunity to examine westward movements, South Platte Valley, natural history, and prehistoric man, old Fort Morgan, explorers and trails, buffalo hunters, early ranches, irrigation, early communities, town buildings, personal biographies, sugar industry, beginnings of Morgan County, the Eben Ezer story, ghost towns, the middle years, shootings and lynchings, effects of World War II, the present, and a look into the future.

**HIS 201 united states history (3)** 1492-1840. The history of the United States from early colonial times through the Age of Jackson. Emphasis is placed on problems of settling the colonies, relationship to the Mother Country; the origins of the American Revolution and the revolution itself; the framing of the Constitution, the Federalist era; Jeffersonian Democracy; War of 1812; the era of Good Feeling; and Jacksonian Democracy.

**HIS 202 united states history (3)** 1840-1900. The antebellum South and the anti-slavery crusade; Manifest Destiny, the war with Mexico and westward expansion; growing sectionalism and the War Between the States; post-war reconstruction; American industrialization and its economics, social and political impact; the populist revolt, and the rise of the United States as a world power.

**HIS 203 united states history (3)** 1900-Present. Background causes of World War I and the war itself. The Golden Twenties; the Great Depression; FDR and the New Deal; World War II, the Cold War's impact on the domestic and foreign policies of the fifties and sixties; and the technological, social and communications development, transforming contemporary America.

**HIS 204 introduction to international relations (3)** An introduction to the world of international affairs. Covers historical origins, geopolitical structure, and the functions of international politics in a multi-state system.

# PHYSICAL EDUCATION DEPARTMENT

Exemptions to physical education requirement may be claimed under any of the following conditions:

1. If student is twenty-one (21) years of age or more.
2. If he is excused for health reasons by a doctor.
3. If he has had at least six (6) months active military service.

**PED 052 weight lifting (1)** Strictly a body-building class for muscle and body tone. No power lifting is involved. This is an excellent class for those wishing to gain or lose weight.

**PED 101, 102, 103 physical education activities (1)** Physical education activity courses with regard given to seasonal activities, rules and playing regulations to each activity, with emphasis on exercises and individual physical fitness.

**PED 110 archery (1)** This class emphasizes proper shooting techniques as well as care and maintenance of equipment. Time will be devoted to the making of materials such as arrows and strings. This class should be of interest to the novice as well as helping the more advanced student refine his style and techniques. Students should furnish their own equipment.

**PED 112 karate (1)** Karate is a martial art which was perfected in Japan after many centuries of evolution in the Orient. Based upon both mental and bodily discipline it is considered to be one of the finest forms of exercise. Contests in art of karate are only one part of the total karate discipline and only one of the methods of training. Karate contests are based upon two of the training disciplines, kumite (free sparring), and kate (form). Thus, there are kumite and kate contests conducted under the strict rules that have been established for competition.

**PED 113 fundamentals of judo (1)** A study of the origin, culture, moral code, falling skills, and basic throws of Kodokan Judo.

**PED 116 volleyball (1)** Correct form, basic techniques, teamwork, and strategy of play are emphasized in this class.

**PED 118 introduction to square dancing**

(1) A background into the folk art of square dancing is emphasized in this introductory class. The steps and movements of the most common square dances fill the class agenda.

**PED 119 first aid (3)** The cause and prevention of infections and inflammation; use of germicides and disinfectants; dressings; stopping of hemorrhage; treatment of shock; bruises, drownings, sprains, dislocations, fractures, poisoning, burns, and use of light, heat, cold, water and other simple remedies in emergencies. Students will receive "Standard" and "Advanced" certificates from the American Red Cross on completion of this course.

**PED 120 advanced first aid (2)** An advanced course intended to meet the needs of special interest groups who have the opportunity to give first aid frequently in the course of their daily routine.

**PED 121 beginning tennis (1)** Basic instruction covering elements of the strokes and rules of the game. Emphasis is placed on the serve, forehand and backhand.

**PED 122 intermediate tennis (1)**  
Continuation of PED 121.

**PED 123 advanced tennis (1)** Continuation of PED 122.

**PED 131 beginning bowling (1)** Co-educational class held at a local bowling lanes. Instruction in bowling procedures and how to score. Although students may enroll in bowling more than one quarter, not more than one quarter may be used towards graduation or fulfilling the Physical Education requirement.

**PED 132 intermediate bowling (1)** A continuation of PED 131.

**PED 133 advanced bowling (1)** A continuation of PED 132.

**PED 141 beginning golf (1)** Instruction covering all phases of the golf game and the use of every club. Particular emphasis is placed on golf etiquette, care of the course and the rules of the game as well as the proper swing to be used.

**PED 142 intermediate golf (1)** A continuation of PED 141.

**PED 143 advanced golf (1)** A continuation of PED 142.

**PED 151 beginning swimming (1)**  
Instruction provided for non-swimmers under the American Red Cross swimming program. Designed to teach basic strokes of swimming. Two clock hours per week.

**PED 152 intermediate swimming (1)**  
Incorporation of basic sequence of skills taught in the American Red Cross intermediate and advanced swimmer classifications as taught by the Red Cross. Two clock hours per week.

**PED 153 advanced swimming (1)** A continuation of PED 152.



# REMEDIAL EDUCATION

**LRC 050, 051, 052 prescriptive learning (variable)** Credit for this course is assigned on the basis of one credit hour for each ten hours spent in the Learning Lab with instructor supervision. Maximum credit is 3 hours per quarter and a total of 9 credit hours. Students enter this program either through self-referral or teacher-referral. Difficulties in the areas of communications, math, sciences or other disciplines are diagnosed, and a program for improvement is designed by the staff for the student. Students may work individually or in small groups.

**GED 101, 102, 103 general education development (1-15)** The GED course is designed to teach students the skills necessary to pass the GED examination in the content areas of mathematics, English, reading comprehension, social studies, science, and literature. The course is individualized so that each student works at his particular level and at his own rate until he is prepared to pass the GED test. Students in the class are also given the option to study any of the content areas in greater depth than is required for the GED in order to prepare themselves for future college or vocational goals.

The GED certificate is equivalent to the high school diploma and is accepted by both employers and schools of higher education. The GED certificate often provides increased opportunities for future education.

**GED reading** The course will aid students in gaining skills in the areas of vocabulary context clues, main idea, sequence and meaning comprehension sufficient for passing the GED test.



**GED science** The course will provide students with vocabulary, main idea and comprehension skills in science reading exercises sufficient for passing the GED test.

**GED social studies** The course will provide students with vocabulary and reading skills in social studies sufficient for passing the GED test.

**GED math** The course will provide students with math skills in fractions, decimals, formula and word problems, algebra and geometry sufficient for passing the GED test.

**GED english** The course will provide students with skills in the areas of grammar usage, punctuation and spelling sufficient for passing the GED test.

**GED literature** The course will provide instruction in the definition of terminology in the interpretation of prose, poetry and drama.

**A.B.E. adult basic education** Adult Basic Education is a program offered free of charge to people over 16 years of age who were unable to complete their elementary or junior high education. Basic reading, writing and math are offered along with English as a Second Language for people learning to speak English.

# AGRICULTURAL TECHNOLOGY

**AGR 102 intro to ag technology (2)** The purpose of this course is to give the student the information needed to determine his occupational objectives in the area of livestock production. This is an orientation to all phases of the agricultural industry with field trips included as a part of the course.

**AGR 106 agricultural accounting i (3)** This is the first in a series of courses concerned with farm accounting and business management. This course deals specifically with double-entry bookkeeping systems and farm accounts.

**AGR 107 agricultural accounting ii (3)** This class deals with more advanced farm and business management techniques.

**AGR 108 agricultural economics (3)** Intro into the management, planning and allocation of farm resources. Special emphasis is placed upon economic planning as it effects farm profit and loss.

**AGR 110 agricultural law (3)** This course will discuss the judicial system, contracts, liability, property ownership and sales, estate planning and insurance as related to agriculture.

**AGR 130 nutrition i (4)** This course deals with the fundamentals of ruminant and non-ruminant digestion, metabolism and nutrition. A one-credit laboratory accompanies the three-credit lecture covering all classes of farm animals.

**AGR 205 basic shop skills i (3)** This course is designed to introduce the student to the

skills necessary to maintain, repair and construct equipment and facilities in the agriculture area. It includes basic welding and knowledge in the electrical and mechanical area.

**AGR 206 basic shop skills ii (3)** This course deals with skills in the area of carpentry, concrete, construction of fencing and related skills.

**AGR 209 principles of agricultural bacteriology (3)** A course designed to acquaint the student with the basic knowledge of bacterial growth, reproduction and identification. The course will familiarize the student with methods of effective therapy and sanitation procedures used in agricultural management. The course consists of two hours of lecture and two hours of laboratory.

**AGR 215 genetics of livestock improvement (3)** This course deals strictly in the areas of breeding and genetics including procedures, techniques and acquaintance with breeding philosophies found in livestock production.

**AGR 226 anatomy and physiology (3)** This course covers swine and cattle anatomy and physiology as well as some basic microbiology related to animal diseases.

**AGR 235 farm tax reporting (3)** The class will be primarily a short course on farm management as it relates to income taxes. Included in the class will be appreciation and depreciation as well as recent changes in tax laws relating to capital gains and losses.

**AGR 250 products and processing (2)**

This is a course designed to study animal products and consumer use of the products.

**AGR 260 marketing and distribution (3)**

This course pursues the nature and scope of livestock and grain marketing and product distribution. The course will acquaint the student with the wholesale and retail marketing and distribution of grain and animal products as well as the live marketing of animals.

**AGR 270 agricultural finance & credit**

**(3)** A course dealing with the problems of obtaining financing and credit. It researches the possible sources of funds, investigating the interest rate structure and payment structure found in a wide variety of agricultural credit programs.

**AGR 275 special studies in agriculture**

**(variable)** This course provides an opportunity for the occupational agriculture students to engage in extensive study and research on a specific topic under the direction of a qualified faculty member. Conditions for selecting this course will be evaluated by the Director of Occupational Education who will determine the amount of credit to be granted for successful completion of the work.

**AGR 280 livestock judging and selection**

**i (2)** In this class emphasis is placed on the evaluation and selection of live animals.

**AGR 281 livestock judging and selection**

**ii (2)** This class is a continuation of the evaluation and selection of live animals. Emphasis is placed on the ability to present accurate, clear and concise reasons and competing in judging contests.

**DAS 100 dairy management i (3)**

This is the first in a series of courses designed to explore in detail the management of large and small dairy operations.

**DAS 105 dairy management ii (3)**

A continuation of the first course in the series designed to explore herd management and dairy facility operations.

**DAS 110 dairy records and taxes (3)**

This course deals with production cost determination, records required in large commercial dairy production units and farm taxes.

**DAS 135 dairy nutrition (3)**

This is a class involving discussions of specific feeding programs for all classes of dairy animals and nutritional problems.

**DAS 200 dairy management iii (3)**

This is the last in a series of management courses designed to put together all of the practices and procedures learned in all of the dairy courses. Field trips and guest speakers will be utilized to discuss and illustrate different theories and practices in dairy management.

**DAS 203 artificial insemination (3)**

Anatomy and physiology of the reproductive tracts will be explored in detail. Reproductive disease problems will also be discussed. Artificial insemination techniques will be discussed. Laboratory work will include practice on live animals.

**DAS 208 dairy facilities and equipment**

**(3)** This course is designed to make the students aware of the facilities and equipment currently in use and ideas being developed for future facility and equipment needs. Management systems as related to different facilities and equipment options will also be discussed. Costs of operation and maintenance procedures will also be covered.

**DAS 210 dairy cattle selection (2)**

This course goes into visual evaluation of all classes of dairy animals.

**DAS 220 dairy herd health (3)**

This course will pursue the more common diseases and health problems encountered in dairy herds. Disease symptoms, treatments and prevention will be discussed. Laboratory work will include microscopic identification of some of the more common pathogenic organisms.

**DAS 191, 192, 193, 194, 295, 296, 297 dairy technology cooperative o.j.t. (variable)** Students enrolled in Dairy Technology O.J.T. are awarded credit towards a degree or certificate via supervised work experience. When a student enrolls for Dairy Technology O.J.T., he must be employed in a job and at a job location that meets the program's occupational standards; or, the student must accept employment at one of the approved training locations developed by the O.J.T. Coordinator. No credit will be given to the student that is not employed in one of the above two conditions, i.e., employment without O.J.T. Coordinator approval. Credit is earned on a one to thirty ratio - one quarter hour of credit for thirty hours of work at an approved and supervised training station. Training agreements establish a work location as a training station; students will be periodically visited by the O.J.T. Coordinator at the training location, and students will keep weekly report sheets.

Credit for previous work experience may be granted upon approval of the O.J.T. Coordinator and Division Director, based on work records.

**EFT 100 elevator & feedmill technology**

**i (3)** A study of the approved practices to physically receive, condition, store, process and deliver grains and feedstuffs. It includes a working knowledge of grain identification and grading by USDA official grain grading standards.

**EFT 150 cooperative grain marketing i**

**(3)** This is a course that involves the study of the practices and methods used in accounting and managing grains. It includes transportation, storage, marketing, finance, bonding and public warehousing.

**EFT 200 elevator & feedmill technology**

**ii (3)** This course is a continuation of the studies in Technology I with emphasis placed on more advanced concepts of the practices involved in the management of elevators and feedmills.

**EFT 250 cooperative grain marketing ii**

**(3)** This course deals with the more advanced procedures and methods involved in grain marketing. It will bring together all the practices, theories and concepts students should be aware of in modern marketing.

**EFT 191, 192, 193, 194, 295, 296, 297 elevator & feedmill cooperative o.j.t. (variable)**

Students enrolled in Elevator & Feedmill O.J.T. are awarded credit towards a degree or certificate via supervised work experience. When a student enrolls for Elevator & Feedmill O.J.T., he must be employed in a job and at a job location that meets the program's occupational standards; or, the student must accept employment at one of the approved training stations developed by the O.J.T. Coordinator. No credit will be given to the student that is not employed in one of the above two conditions, i.e., employment without O.J.T. Coordinator approval. Credit is earned on a one to thirty ratio—one quarter hour of credit for thirty hours of work at an approved and supervised training station. Training agreements establish a work location as a training location; students will be periodically visited by the O.J.T. Coordinator at the training station; and students will keep weekly report sheets.

Credit for previous work experience may be granted upon approval of the O.J.T. Coordinator and Division Director based on work records.

**RAM 135 nutrition elective (3)**

Each student will select one animal nutrition class in order to develop skills and knowledge in feeding programs, nutritional problems, nutritional requirements and ration formulation.

**RAM 230 personnel management & economics (3)** This course is designed to acquaint the student with the basic principles of economics. It involves management and techniques used in the handling of employees.

**SWM 100 swine management i (3)** This is the first in a series of courses designed for the management phase of the swine industry. It is the beginning course covering basics in swine management.

**SWM 105 swine management ii (3)** This course is the second in a series of courses designed for the management phase of the swine industry. It is a course dealing in the areas of handling the swine herd, and the processes and procedures in the operation of large facilities as well as small operations.

**SWM 135 swine nutrition (3)** This course deals with specific feeding programs, nutritional problems, feed preparation, nutritional requirements and ration formulation for all classes of swine.

**SWM 200 swine management iii (3)** The last in a series of swine management courses designed to finalize and put together all the practices and procedures learned in other courses. Field trips, video tape, and guest speakers are used to amplify knowledge, and to expand on different theories and ideas in swine management.

**SWM 191, 192, 193, 194, 295, 296, 297 swine management cooperative o.j.t. (variable)** Students enrolled in Swine Management O.J.T. are awarded credit towards a degree or certificate via supervised work experience. When a student enrolls for Swine Management O.J.T., he must be employed in a job and at a job location that meets the program's occupational standards; or, the student must accept employment at one of the approved training stations developed by the O.J.T. Coordinator. No credit will be given to the student that is not employed in one of the above two conditions, i.e., employment without O.J.T. Coordinator approval.

Credit is earned on a one to thirty ratio—one quarter hour of credit for thirty hours of work at an approved and supervised training station. Training agreements establish a work location as a training station; students will be periodically visited by the O.J.T. Coordinator at the training station, and students will keep weekly report sheets.

Credit for previous work experience may be granted upon approval of the O.J.T. Coordinator and Division Director, based on work records.

**SWM 208 swine facilities & equipment**

**(3)** This course makes students aware of the facilities and equipment that are available to the swine industry. Equipment and facilities which are presently in use and those which are in the developmental stage will be studied. It will acquaint the student with all aspects of facilities and equipment used and also the maintenance and repair of such equipment. It will provide the student with the background procedures to use in the operation of a production unit.

**SWM 218 swine breeding & selection**

**(5)** This course is a study of genetics, breeding practices and techniques designed to produce the type of animal desired by the consumer. It includes details of production records and related research data and theories applied to breeding and cross breeding programs. It also covers production testing procedures, carcass evaluation and judging.

**SWM 220 diseases and parasitology (6)**

Prerequisite: AGR 226. This is a course offered in swine diseases and parasites, covering the basic concept of sanitation in the prevention and control of disease and parasitic organisms. This course will acquaint students with symptoms, causative organisms, methods of control, prevention and treatment for diseases in swine.

# AUTOMOTIVE TECHNOLOGY

## **AUB 100 minor automotive body repair**

**(12)** A course designed to introduce students to automotive body repair and refinishing. The student will be well oriented in theory and gain practical knowledge through work on late model automobiles in the shop. The student is introduced to basic oxyacetylene welding.

## **AUB 105 automotive wiring & accessories (6)**

This course covers the necessary wiring required in the body and repair field. It acquaints the student with accessories involved in automotive rebuilding, the body phase, and upholstery and materials in the upholstery headliner. It also acquaints the student with installation and removal.

## **AUB 120 automotive body painting & refinishing (6)**

A course in the methods and procedures of automobile refinishing. Proper use of refinishing materials, the development of basic skills are stressed.

## **AUB 130 automotive glass & trim (12)**

This course covers the procedures and problems involved in removing and installing automotive glass and trim. Jobs will be selected as representative of body and front end collision.

## **AUB 200 major automotive body repair**

**(12)** Advanced instruction in the use of portable frame straighteners to straighten frames and repair major body damage. The three common types of damaged areas studied are represented by front, rear-end, and side collision damage.

## **AUB 210 automotive frame & chassis**

**(12)** This course covers the problems involved in the repairs of various frame designs. Laboratory work includes the use of portable frame straightening equipment. This course also covers wheel alignment and balancing.

## **AUB 220 automotive body service (6)**

This course is designed to review all previous work in automotive body service and to develop specific skills where needed.

## **AUB 275 special studies in auto body (variable)**

Provides an opportunity for the serious-minded student to engage in intensive study and research on a special topic under the direction of a qualified faculty member. Conditions for electing this course will be evaluated by the Director of Occupational Education, who will assist in selecting an advisor and determine the amount of credit to be granted for successful completion of the work.

## **AUB 280 job entry orientation (6)**

This course is designed to familiarize the student with ideas and knowledge of how, what, and where job opportunities lie and their requirements. Management is also covered to familiarize the student with the automotive industry operations.

## **AUB 191, 192, 193, 194, 295, 296, 297 automotive body cooperative o.j.t.**

**(variable)** Students enrolled in Automotive Body O.J.T. are awarded credit towards a degree or certificate via supervised work ex-

perience. When a student enrolls for Automotive Body O.J.T., he must be employed in a job and at a job location that meets the program's occupational standards; or, the student must accept employment at one of the approved training stations developed by the O.J.T. Coordinator. No credit will be given to the student that is not employed in one of the above two conditions, i.e., employment without O.J.T. Coordinator approval. Credit is earned on a one to thirty ratio—one quarter hour of credit for thirty hours of work at an approved and supervised training station. Training agreements establish a work location as a training station; students will be periodically visited by the O.J.T. Coordinator at the training station; and students will keep weekly report sheets.

Credit for previous work experience may be granted upon approval of the O.J.T. Coordinator and Division Director, based on work records.

**AUM 053 auto tune-up and repair (3)** A class in auto tune-up designed and structured to meet student needs. Possibilities include ignition systems, carburetors, starters, timing and tune-up. Students will work on their own vehicles.

**AUM 100 automotive electrical systems (6)** The study of electricity and how it is applied to today's automobiles. The theory of electricity, batteries, charging, starting, and ignition systems, and their diagnosis and servicing are covered.

**AUM 120 automotive fuel systems (6)** The student will become familiar with the entire fuel systems from its cap to exhaust pipe. He will progress from basic principles to major service diagnosis and repair procedures. The student will become acquainted with all models of one, two, and four barrel carburetors. Bench models of modern carburetors will be used to familiarize the students with parts, overhaul, and adjustment procedures. Basic emission controls are covered with in-

roduction to the new Sun infra-red tester to test HC and Co pollutants.

**AUM 135 automotive engines (12)**

Principles of design, construction and operation of modern automotive engines are studied both in theory and practical application. Engine testing and diagnosis will be covered followed by service procedures. Course will include cylinder head reconditioning, cylinder boring, crankshaft grinding, rod reconditioning and other necessary skills for performing a complete engine rebuild. Students will have an opportunity to perform an engine overhaul.

**AUM 140 automotive braking systems (6)**

Hydraulic principles are applied to automotive hydraulic brake systems and the operation of modern automobiles are studied both in theory and practical application. Diagnosis and servicing of the hydraulic system, drum type, and disc type brakes are included.

**AUM 141 motorcycle mechanics (6)**

The course is designed to acquaint the student with theory, construction, operation and service techniques of the electrical system, fuel systems, engine, braking system, troubleshooting and tune-up, steering and suspension, and power train.

**AUM 151 foreign car maintenance (6)**

The student will become familiar with theory, construction, operation and service techniques in the areas of electrical, fuel systems, engines, braking system, trouble-shooting and tune-up, steering, suspension and power train.

**AUM 210 drive train - standard (6)**

A detailed study of construction, operation and service techniques for clutches, standard transmissions, both three and four speeds, drive lines and rear axles, both standard and locking. A large variety of transmissions and differentials are used to give the student practical experience.



**AUM 215 automatic transmissions (6)** A study of the theory, construction, operation and service of modern automatic transmission. Late model transmissions are used to enable the student to acquire the necessary knowledge and skill to perform automatic transmission overhaul.

**AUM 220 suspension, steering & servicing (6)** A detailed study of wheel alignment, balance, theory and servicing of front suspension systems. Diagnosis, service and overhaul techniques for both standard and power steering systems are covered. Students will learn to perform complete front-end alignment on a modern front-end machine.

**AUM 255 trouble shooting, tune-up & emissions (12)** The student will become familiarized with diagnosis procedures of automotive malfunctions and remedial measures, stressing modern testing equipment and procedures. This includes a complete study of emissions and emission controls, ignition, carburetor systems and how to perform tune-ups, diagnoses and adjustments of engine problems. The infra-red emission tester will be used in testing for emission pollutants.

**AUM 260 automotive air conditioning (6)** A study of theory operation, construction, and service of automobile air conditioning. Included are diagnosing, repair and charging of air conditioning systems. The student will learn on an operating lab model and progress to on-the-car service.

**AUM 275 special studies in automotive mechanics (variable)** Provides an opportunity for the serious-minded student to engage in intensive study and research on a special topic under the direction of a qualified faculty member. Conditions for electing this course will be evaluated by the Director of Occupational Education, who will assist in selecting an advisor and determine the amount of credit to be granted for successful completion of the work.

**AUM 280 job entry orientation (6)** This course is designed to familiarize the student with ideas and knowledge of how, what, and where job opportunities lie and their requirements. Management is also covered to familiarize the student with the automotive industry operations.

**AUM 191, 192, 193, 194, 295, 296, 297 automotive mechanics cooperative o.j.t. (variable)** Students enrolled in Automotive Mechanics O.J.T. are awarded credit towards a degree or certificate via supervised work experience. When a student enrolls for Automotive O.J.T., he must be employed in a job and at a job location that meets the program's occupational standards; or the student must accept employment at one of the approved training stations developed by the O.J.T. Coordinator. No credit will be given to the student that is not employed in one of the above two conditions, i.e., employment without O.J.T. Coordinator approval. Credit is earned on a one to thirty ratio—one quarter hour of credit for thirty hours of work at an approved and supervised training station. Training agreements establish a work location as a training station; students will be periodically visited by the O.J.T. Coordinator at the training station; and students will keep weekly report sheets.

Credit for previous work experience may be granted upon approval of the O.J.T. Coordinator and Division Director, based on work records.

# BUILDING TRADES TECHNOLOGY

**BLD 104 construction safety (2)** This course meets two hours per week to review safety standards and safety procedures as related to the general area of construction. O.S.H.A. and industry standards are recognized and studied. Safety procedures and precautions are carefully reviewed, also.

**BLD 120 carpentry: hand & power tools (3)** A study and practical application of the use of hand tools, both new and modified; power tools such as power screwdrivers, air-powered staples and nailers, adhesive guns, power saws, routers, jointers, and sanders; and overall training in the finest techniques in the area of carpentry.

**BLD 122 materials & construction theory (3)** This course deals in materials found in the construction industry and with construction theories as they apply to the entire building trades field. The student will become acquainted with a cross section of new industry materials and construction techniques.

**BLD 123 carpentry: planning & construction (3)** Construction planning for the building trades including safety, purchasing of a site, and drawing of house plans and the layout of electrical, plumbing, heating and air conditioning systems. Involved are the actual construction of footings, basement walls, flooring, framing, roofing and the laying of bricks. All areas of residential construction are encompassed.

**BLD 124 carpentry: excavation, & foundation (3)** This course deals with layout, excavation and foundation forming, pouring, and reinforcing. A study of substructure to determine foundation requirements is essential.

**BLD 130 electrical: wiring principles (3)** This is a course in basic electrical theory combined with practical application which emphasizes methods of wiring, from small appliances to large, and from residential to industrial wiring. This is a basic course in which the trainee learns to become an electrician.

**BLD 132 electrical: control & circuits (3)** This course deals with controls and circuits found in industrial and residential wiring.

**BLD 134 electrical: installation planning (3)** A course dealing in layout of electrical installations and the initial budgeting for bidding such installations.

**BLD 140 masonry: bricklaying i (3)** An introduction to brick masonry, one of the earliest manifestations of man's culture, yet one of the most sophisticated of modern building crafts. The student will learn the early history of brick and modern methods of manufacture. He will learn the difficult, important details in laying brick at corners, around doors and windows, across lintels, and the basics in laying pilasters, columns and chimneys.

**BLD 141 masonry: bricklaying ii (3)**

The second in a series of courses in the bricklaying field.

**BLD 144 masonry: stone i (3)**

An introductory course in the cutting of stone, placement, selection and the procedures used in laying of native stone.

**BLD 160 plumbing: tools & equipment**

(3) Training in the use of tools and equipment in the plumbing trade.

**BLD 162 plumbing: residential plumbing**

(3) This course covers the plumbing codes, installation of residential plumbing, and updating in new materials and procedures.

**BLD 164 plumbing: industrial plumbing**

(3) This course covers the codes for industrial plumbing and acquaints the student with techniques in industrial plumbing.

**BLD 180 dry wall & plastering: tools, materials & equipment**

(3) This course acquaints the student with the tools, materials and equipment found in the dry wall and plastering industry.

**BLD 181 dry wall & plastering: basic dry wall**

(3) This course takes the student from a beginning area into the area in which he can install the basic taping and texturing of dry wall.

**BLD 182 dry wall & plastering: exterior design**

(3) This course deals with the exterior design of buildings and the plastering, texturing and stuccoing area.

**BLD 191, 192, 193, 194, 295, 296, 297 building trades cooperative o.j.t. (variable)**

Students enrolled in Building Trades O.J.T. are awarded credit towards a degree or certificate via supervised work experience. When a student enrolls for Building Trades O.J.T., he must be employed in a job and at a job location that meets the program's occupational standards; or, the student must accept employment at one of the approved training stations developed by the O.J.T. Coordinator. No credit will be given to the student that is not employed in one of the

above two conditions, i.e., employment without O.J.T. Coordinator approval. Credit is earned on a one to thirty ratio—one quarter hour of credit for thirty hours of work at an approved and supervised training location. Training agreements establish a work station as a training station; students will be periodically visited by the O.J.T. Coordinator at the training station; and students will keep weekly report sheets.

Credit for previous work experience may be granted upon approval of the O.J.T. Coordinator and Division Director; based on work records.

**BLD 214 specifications, codes & contracts**

(3) This course acquaints the student with codes, contracts and specifications found in the building industry.

**BLD 217 bidding, estimating & cost control**

(3) This course acquaints the student with the estimating, bidding, and cost control found in the construction field.

**BLD 221 carpentry: framing & construction**

(3) This course introduces framing and construction methods found in the carpentry field.

**BLD 223 carpentry: finishing & roofing**

(3) This course covers the roofing and finishing phases in construction.

**BLD 225 carpentry: cabinets & built-ins**

(3) A course covering cabinets and built-ins found in modern homes and industrial construction.

**BLD 231 electrical: analysis & maintenance**

(3) A course in electronics covering analysis of problems in electrical equipment, motors and methods of maintenance.

**BLD 233 electrical: residential wiring**

(3) This course deals with residential wiring problems, procedures, and techniques.

**BLD 235 electrical: industrial wiring**

(3) This course deals with residential wiring problems, procedures, and techniques.

- BLD 241 masonry: stone ii (3)** This is the final course in the cutting and laying of native stone.
- BLD 243 masonry: block i (3)** An introductory course in block construction emphasizing proper material selection for industrial or residential requirements.
- BLD 244 masonry: block ii (3)** An advanced course in block construction.
- BLD 261 plumbing: water supply & waste (3)** This is a course in various sources of water supply, including wells, and a study of rural and city waste control.
- BLD 263 plumbing: residential heating (3)** A course in residential heating and air conditioning.
- BLD 265 plumbing: industrial heating (3)** This course deals with the ability to plan the BTU-s needed for a given area plus installation problems and procedures to follow in installing industrial heating.
- BLD 275 special studies in building trades (variable)** Provides an opportunity for the serious minded student to engage in intensive study and research on a special topic under the direction of a qualified faculty member. Conditions for electing this course will be evaluated by the Director of Occupational Education who will assist in selecting an advisor and determine the amount of credit to be granted for successful completion of the work.
- BLD 280 dry wall & plastering: advanced dry wall (3)** This course completes the student's training in all dry walling aspects through the very finishing touches.
- BLD 281 dry wall & plastering: basic plastering (3)** This course acquaints the student with the basic plastering techniques in the art of plastering and stucco.
- BLD 282 dry wall & plastering: advanced plastering (3)** This advance course completes the student's training into the final stages and finishing design in plastering and stucco.

**DFT 100 basic drafting i (4)** This is a basic course introducing the student to instruments and the development of three dimensional and instrument letterings, sketchings, geometric construction, orthographic projection, isometric drawing, and introduction to basic dimensioning techniques.

**DFT 105 basic drafting ii (4)** A continuation of Drafting i (DFT 100). Intersections, developments, technical illustration drawing, dimension and tolerances, mechanical detail and working drawings.

**DFT 110 residential drafting & planning (4)** This course consists of area planning standards and codes; drawing of complete residential plans, including plot, foundation and floor plans, elevations, sections and electrical plans. The course provides familiarization with the estimating of construction costs, quantity, take-off surveys, labor productivity, rates, and overhead and profit.



# BUSINESS AND SECRETARIAL TECHNOLOGY

**BUS 025 law and banking (4½)** An introduction to basic American law, presenting the rules of law which underlie banking. Topics include jurisprudence, the court system and civil procedure, contracts, quasi-contracts, property, torts and crimes, agencies, partnerships, corporations, sales of personal property, commercial paper, bank deposits and collections, documents of title, and secured transactions. Emphasis is on the Uniform Commercial Code.

**BUS 030 principles of bank operations (4½)** This course presents the fundamentals of bank functions in a descriptive fashion so that the beginning banker may acquire 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. The text has been revised recently.

**BUS 032 analyzing financial statements (4½)** A fourth edition of the textbook is used for this course and 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.

**BUS 050 applied math for business (3)**  
Topics covered are: invoicing, basic business math, payrolls, percentage, decimals, interest, mark-ups, discounts.

**BUS 051 small business management (3)**  
This course will offer small business procedures, environments, and decision making that relate to sound practices of financing, management and marketing in the small business enterprises.

**BUS 060, 061, 062, 063, 064, 065 business leadership development (1-6)**  
This course is designed to develop competent and aggressive leadership in the business world through participation in community and school activities and/or with Phi Beta Lambda National Business Fraternity. A minimum of 10 contact hours in approved leadership activities is required.

**BUS 100 business bookkeeping (3)**  
Emphasis is placed on the accounting cycle and on small business transactions.

**BUS 101 principles of accounting i (4)**  
An introductory course covering the principles of double-entry accounting. Simple books of original entry, adjusting and closing entries, and financial statements.

**BUS 102 principles of accounting ii (4)** A continuation of BUS 101 which is a prerequisite. Included is a study of prepaid and accrued items, payroll, taxes, and depreciation methods. Introduces partnerships and corporation accounting.

**BUS 103 principles of accounting iii (4)**

A continuation of BUS 102 which is a prerequisite. Included is a study on the corporation as well as control and decision-making accounting. Also included is an introduction to manufacturing and cost accounting.

**BUS 107 introduction to business (3)**

A course that surveys the major fields of business operation such as ownership, organization, marketing, personnel finance and the role of management on these areas.

**BUS 110 introduction to data processing**

**(3)** There are certain fundamental operational principles that all data processing systems have. This course is designed to acquaint the student with the development of the computer system and to serve as a foundation for detailed study of specific systems. Prerequisite: Sophomore status or consent of instructor.

**BUS 111 business law i (3)**

An introductory course covering the nature and development of the law. Includes a study of contracts, negotiable instruments, sales and agency.

**BUS 112 business law ii (3)**

A continuation of BUS 111. Includes partnership, corporations, real property, insurance, bailment and bankruptcy. Student might find it desirable to register for BUS 111 before registering for BUS 112.

**BUS 113 income tax i (3)**

Development and basic structure of federal income tax law; general tax procedures; impact of taxes on decision making.

**BUS 114 income tax preparation, advanced (3)**

A study of advanced rules and regulations covering such items as capital gains and losses, investment credit, net operating losses, pension and profit sharing plans, etc., and a study of tax aspects of partnerships and corporations.

**BUS 121 marketing i (3)**

Prerequisite: Introduction to Business (BUS 107). An introductory course dealing with

principles of marketing operations. Consideration is given to the distribution and production pricing, marketing research, and marketing costs.

**BUS 126 salesmanship i (3)**

A basic course which pursues the nature and scope of selling. The student is acquainted with the basic concepts found in sales techniques and is provided with the fundamentals required to develop sales techniques and procedures.

**BUS 127 salesmanship ii (3)**

Prerequisite: BUS 126. This course introduces the student to wholesale, industrial, and institutional sales. Emphasis is placed upon the selling techniques required to perform at these levels of selling. The unique characteristics of each type of selling will be stressed.

**BUS 132 retailing i (3)**

A course dealing with the role that retailing plays in our economy. Problems of organization and operation, and functions performed by the retailer.

**BUS 135 business correspondence (3)**

This course is designed to develop proficiency in writing business letters and other types of correspondence used in the business field. Various types of business correspondence are analyzed and practical applications made. Message theory, semantics, and human behavior will be included.

**BUS 201 intermediate accounting (5)**

A review of fundamental accounting processes, treatment of inventories and receivables, dealing with accounting treatment of investments, plant assets, intangible assets and liabilities.

**BUS 205 cost accounting (5)**

Elements and methods of cost accounting, including job order, cost finding, process cost, standard costs, budgetary control, and cost accounting reports for management use.

**BUS 262 business management and organization (3)** A review of the primary purposes and responsibilities of business, legal forms of ownership, types of organizational structure, and the promotion and operation of business. This is followed by an application of these principles to the area of personnel, production plant and equipment, working conditions and the relations between the business, the community and society.

**BUS 263 finance & credit (3)** This course is designed to help the student plan the handling of his finances in everyday business transactions. Topics included are managing income, investment, legal regulations, shopping, buying, and credit.

**BUS 264 records management (3)** Administrative record systems, storage and retrieval of information, paperwork management, and modern filing systems are studied. Extensive practice is given in applying indexing rules and filing correspondence.

**BUS 265 merchandise display (3)** This course introduces the student to the non-personal presentation of goods or ideas to a group. Emphasis is placed upon the principles and elements of display techniques and the trends affecting both interior and exterior display.

**BUS 270 money management (3)** Examines the sources of short term, intermediate term and long term funds for business principles and motives of financial management. This course is designed primarily for second-year students in accounting and business.

**BUS 275 special studies in business (3-6)** Provides an opportunity for the Business student to engage in intensive study and research on a specific topic under the direction of a qualified faculty member. Conditions for electing this course will be evaluated by the Director of Occupational Education, who will assist in selecting an advisor and determining the amount of credit to be granted for successful

completion of the work.

**BUS 292 advertising (3)** Planning copy, layouts, and advertisements for printed media and radio; placement of advertising, the promotion of advertisement in business, and testing the effectiveness of advertising.

**BUS 295, 296, 297 business cooperative o.j.t. (variable)** Students enrolled in Business O.J.T. are awarded credit towards a degree or certificate via supervised work experience. When a student enrolls for Business O.J.T. he must be employed in a job and at a job location that meets the program's occupational standards; or, the student must accept employment at one of the approved training stations developed by the O.J.T. Coordinator. No credit will be given to the student that is not employed in one of the above two conditions; i.e., employment without O.J.T. Coordinator approval. Credit is earned on a one to thirty ratio—one quarter hour of credit for thirty hours of work at an approved and supervised training station. Training agreements establish a work location as a training location; students will be periodically visited by the O.J.T. Coordinator at the training stations; and students will keep weekly report sheets.

Credit for previous work experience may be granted upon approval of the O.J.T. Coordinator and Division Director based on work records.

**SEC 050 secretarial upgrading workshop (3)** A course designed especially for secretaries who are employed and for persons who desire to upgrade secretarial skills so they might seek employment. Content will cover refresher work on electric typewriters, punctuation, filing systems, telephone reception techniques, secretarial duties and appearance.

**SEC 100 secretarial vocabulary skills (1)** The development of secretarial skills in vocabulary, spelling and punctuation.

- SEC 141 office machines i (4)** This course emphasizes the use of basic office machines in the arithmetic process of solving business problems. Instruction is included on the 10-key adding machine, electronic calculator and printing calculator.
- SEC 142 office machines ii (4)** Prerequisite or co-requisite: SEC 162 (Typewriting II) or consent of instructor. Instruction on the operation of office duplicating machines, office dictating/transcribing machines, and other business machines with emphasis on the development of a proficiency level of skill for use in the business office.
- SEC 145 secretarial science (3)** This course is an introductory course to the secretarial field covering the essentials in secretarial duties and responsibilities including word processing, communications, and management of records. Filing is introduced in this course.
- SEC 147 secretarial etiquette (2)** This course is based on improving personality, appearance, charm, poise, and etiquette. Training in speech, conversation, and telephone techniques are included to foster self-confidence and assurance.
- SEC 151 gregg shorthand i (5)**  
Prerequisite: Proficiency in typewriting and consent of instructor. An introduction to the principles of shorthand with emphasis on reading from printed shorthand and writing from dictation using a vocabulary of high frequency.
- SEC 152 gregg shorthand ii (5)**  
Prerequisite: SEC 151 or equivalent proficiency. A review and application of the principles of shorthand, Diamond Jubilee series, practice in reading and writing accurately, development of ability to take familiar dictation at sixty to one hundred words per minute and unfamiliar dictation at fifty to eighty words per minute. Transcribing accurately on the typewriter.
- SEC 153 gregg shorthand iii (5)**  
Prerequisite: SEC 152 or equivalent proficiency. A continuation of the study of shorthand; emphasis is on speed and accuracy in dictation and transcription. Drill on problems in transcription including grammar and punctuation, arrangement of mailable letters, and practice in office style dictation.
- SEC 155 abc shorthand i (5)**  
Prerequisite: Proficiency in typewriting or consent of instructor. An introduction to the principles of alphabet shorthand with emphasis on reading from printed shorthand and writing from dictation using a vocabulary of high frequency.
- SEC 156 abc shorthand ii (5)**  
Prerequisite: SEC 155 or equivalent proficiency. A continuation of the study of alphabet shorthand; emphasis is on speed and accuracy in dictation and transcription. Drill on problems in transcription including grammar and punctuation, and practices in office style dictation.
- SEC 157 machine shorthand i (5)**  
Prerequisite: Proficiency in typewriting or consent of instructor. An introduction to the principles of machine shorthand with emphasis on reading from printed shorthand and writing from dictation using a vocabulary of high frequency.
- SEC 158 machine shorthand ii (5)**  
Prerequisite: SEC 157. A continuation of the study of machine shorthand; emphasis is on speed and accuracy of dictation and transcription. Drill on problems in transcription including grammar punctuation, and practice in
- SEC 161 typewriting i (4)** An introduction to the operation of the typewriter by the touch system. This course is designed to provide sufficient knowledge of machine operation for those who desire a basic skill in typing for personal use or as a background for the future work.



**SEC 162 typewriting ii (4)**

Prerequisite: SEC 161 or consent of instructor. Intermediate typewriting - technique improvement for the development of speed and accuracy in the operation of the typewriter. Concentration on practice in typing a wide variety of business forms, letters, tabulations, manuscripts and improvement in speed and accuracy.

**SEC 163 typewriting iii (4)**

Prerequisite: SEC 162 or consent of the instructor. This course is a continuation of SEC 162, with an emphasis on speed and accuracy. To provide opportunities for the beginning of job applications of these skills.

**SEC 164 production typewriting (4)**

Prerequisite: SEC 163 or consent of the instructor. Advanced typewriting. This course emphasizes the continued development of vocational levels of speed and accuracy. Concentration on the production of typed materials (letters, envelopes, tabulations, manuscripts, business forms, etc.) in conformance with good business practice.

**SEC 166 personal use typing (2)** This class is for the adult who wants to learn to type for personal use or for individuals who wish to brush up on their typing skills. The touch system is used with the emphasis being put on developing speed and accuracy.

**SEC 191, 192, 193, 194, 295, 296, 297 secretarial science cooperative o.j.t. (variable)**

Students enrolled in Secretarial Science O.J.T. are awarded credit towards a degree or certificate via supervised work experience. When a student enrolls for Secretarial Science O.J.T., he must be employed in a job and at a job location that meets the program's occupational standards; or, the student must accept employment at one of the approved training stations developed by the O.J.T. Coordinator. No credit will be given to the student that is not employed in one of the above two conditions, i.e., employment without O.J.T. Coordinator approval.

Credit is earned on a one to thirty ratio-one quarter hour of credit for thirty hours of work at an approved and supervised training station. Training agreements establish a work station as a training location; students will be periodically visited by the O.J.T. Coordinator at the training stations; and students will keep weekly report sheets.

Credit for previous work experience may be granted upon approval of the O.J.T. Coordinator and Division Director based on work records.

**SEC 230 legal speciality i (5)**

Prerequisite: Typewriting proficiency. This course provides the necessary familiarization for students to acquaint themselves with the legal field, including typewriting, legal dictation and terminology.

**SEC 231 medical speciality i (5)**

Prerequisite: Typewriting proficiency. This course provides the necessary familiarization for students to acquaint themselves with the medical field, including typewriting, medical dictation and terminology.

**SEC 232 executive speciality i (5)**

Prerequisite: Typewriting proficiency. This course provides the necessary familiarization for students to acquaint themselves with the executive field including typewriting, dictation and management.

**SEC 233 medical speciality ii (5)**

This course provides advanced typewriting, dictation, and terminology material of difficult nature to prepare an individual who is specializing in the Medical Secretarial field.

**SEC 234 legal speciality ii (5)**

This course provides advanced typewriting, dictation, and terminology for the legal field.

**SEC 235 executive speciality ii (5)**

This course provides advanced typewriting, dictation, and terminology for the executive secretary.

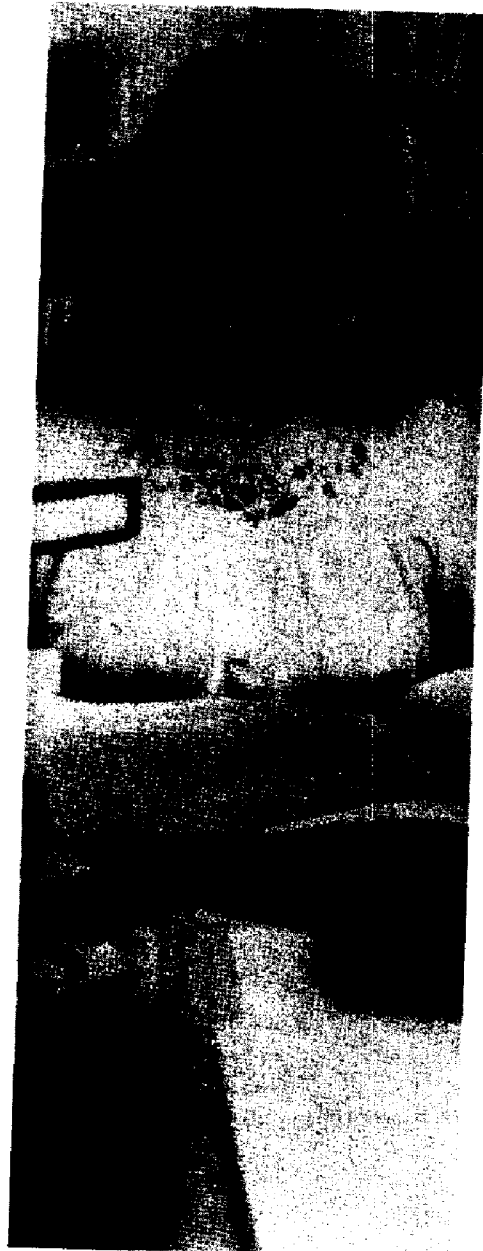
**SEC 240 speed dictation and transcription I (5)** Prerequisite: SEC 153 or SEC 156 or SEC 158 or equivalent proficiency. Practice in production procedures in dictation and transcription. This course includes a review of letter styles, rules, transcription, punctuation and the mechanics of producing mailable letters at a high production rate. Experience on several models of electric typewriters will be provided plus laboratory practice as directed by the instructor.

**SEC 241 speed dictation & transcription II (5)** Prerequisite: SEC 240 or equivalent proficiency. Practice in production procedure in a variety of difficult dictation and transcription areas found in the secretarial field. This course includes review of letter styles, rules, transcription, punctuation, transcription short-cuts, vocabulary building and mechanics of producing mailable letters at high production rate.

**SEC 254 secretarial procedures (3)** Secretarial procedures, duties and responsibilities are covered thoroughly, including conferences, collection of business data, an introduction to automated data processing, and financial aspects of secretarial work.

**SEC 266 administrative secretary (5)** This course is designed to prepare the secretary for a management assistant. Topics include management of records, supervising the details of meetings, assisting with reports, procedures writing, legal facets of secretarial work, and fulfilling your administrative role.

**SEC 275 special studies in secretarial science (variable)** This course provides an opportunity for the Secretarial student to engage in intensive study and research on a specific topic under the direction of a qualified faculty member. Conditions for electing this course will be evaluated by the Director of Occupational Education, who will assist in selecting an advisor and determining the amount of credit to be granted for successful completion of the work.



# ELECTRONICS TECHNOLOGY

**ELE 101, 102, 103 basic electronics i, ii, iii (8)** Electron Theory, conductors, insulators, semi-conductors; current voltage, resistance, inductance, capacitance and power in AC/DC circuits. Series, parallel and series-parallel AD/DC circuits. Use of basic test equipment in circuit analysis and troubleshooting will be given special emphasis with practical applications.

Solid state devices theory and application. Analysis and use of various solid state devices in different configurations. Circuits discussed are constructed for examination and proof. The vacuum tube diode, triode and selected multigrid tubes, including functional circuits using these components will be covered. Lecture: 5 hours; Lab: 5 hours per week.

**ELE 180 technical project (variable)** This course is a practical demonstration of the student's ingenuity in the application of principles of electronics. Projects are in the realm of building test equipment, radio and television receivers, design of special test equipment and/or construction of a television camera. Students may elect to substitute on-the-job training for these credits. Students are placed at a work station related to his program and work under the supervision of experienced personnel with the college instructor providing coordination. Prerequisites for enrollment in O.J.T. are with permission of instructor and approval of the Director of Occupational Education.

**ELE 201, 202, 203 advanced electronics i, ii, iii (8)** Prerequisite: ELE 101, 102, 103 (Basic Electronics). Provides the student a more comprehensive understanding of electronics and provides exposure to some of the deeper aspects of the art. An introduction to digital and analog electronic devices as applied to computers as well as digital instrumentation technology. Digital logic circuits, operational amplifier circuits and integrated circuit technology will be studied. Lab experiments will be used to allow the student to design and construct a special digital and analog circuits. Considerable emphasis will be placed on individual research projects in specialized areas of interest. Lecture: 5 hours; Lab: 5 hours per week.

**ELE 205, 206, 207 consumer electronics i, ii, iii (8)** Prerequisite: ELE 101, 102, 103, Basic Electronics. A course designed to acquaint the student to the diversified field of consumer electronics. Theory and operation of tape players, tape recorders, stereo systems, record changers, video-tape systems, MATV and other specialized products will be covered. Theory and operation of radio, both vacuum tube and solid state. Multiband receivers, CB equipment and more sophisticated radio equipment will be covered as indicated by student needs. Monochrome and color TV theory and operation. Students will be instructed in the use of color servicing equipment.

Emphasis will be placed in the troubleshooting and repair methods of consumer electronic equipment. Lecture: 5 hours; Lab: 5 hours per week.

**ELE 260 fcc license preparation i (3)**

Prerequisite: Minimum of 4 quarters of electronics or instructor's approval. This course is designed to prepare students to successfully pass FCC license examination for second class radio telephone operator's license.

**ELE 261 fcc license preparation ii (3)**

Prerequisite: ELE 260. A continuation of ELE 260. This course is designed to prepare students to successfully pass the first class FCC radio telephone examination. A number of final examinations are taken so that the student may be familiar with the FCC type of examination.

**ELE 270, 275 special studies in electronics (variable)** Offered the last two quarters of the program, the course is designed to give the student specialized knowledge in specific areas of electronics such as photoelectric devices, temperature controls, closed circuit television, or the like.

**ELE 191, 192, 193, 194, 295, 296, 297 electronics o.j.t. (variable)** Students enrolled in Electronics O.J.T. are awarded credit towards a degree or certificate via supervised work experience. When a student enrolls for Electronics O.J.T. he must be employed in a job and at a job location that meets the program's occupational standards; or, the student must accept employment at one of the approved training stations developed by the O.J.T. Coordinator. No credit will be given to the student who is not employed in one of the above two conditions, i.e., employment without O.J.T. Coordinator approval. Credit is earned on a one to thirty ratio—one quarter hour of credit for thirty hours of work at an approved and supervised training station. Training agreements establish a work location as a training station; students will be

periodically visited by the O.J.T. Coordinator at the training station; and students will keep weekly report sheets.

Credit for previous work experience may be granted upon approval of the O.J.T. Coordinator and Division Director based on work records.

**DFT 102 electronics drafting (4)** The course is Electronically oriented, and stresses symbols, component outlines, block diagram, schematic diagrams, P.C. boards, electromechanical design, wiring diagrams.



# LP-GAS TECHNOLOGY

**LPG 101 lp gas service i (6)** This course deals with familiarizing the student with the product. He is acquainted with LP Gas, how it is distributed, and standards and regulations for the LP Gas industry. Another phase of this training is in the fundamentals of customer relations for office employees and other services employees.

**LPG 102 lp gas service ii (6)** This course provides information on how LP Gas is distributed, the basic facts needed for deliverymen and the bulk plant personnel, containers and fittings for transportation and storage; methods of transferring LP Gas, care and operation of pumps and compressors, maintenance points for strainers, meters, and hoses, and measuring LP Gas liquid. A tour of bulk plants and other LP Gas facilities is part of this course, utilizing step-by-step procedures to cover bulk plant records, the safety measures of bulk plants, how to fill cylinders, and cylinder care. In the transportation and product phase of the course, students become familiar with railroad tank cars, transport trucks, and delivery procedures.

**LPG 103 lp gas service iii (6)** This course provides the basic sciences required for the LP Gas technician covering basic chemistry, electrical circuits required. It makes the student completely familiar with storage systems, sizing of pipe and tubing, installing of storage systems and house piping and the care and handling of pipe and tubing; it also covers the appliances, modern gas range, troubleshooting, heating of water, servicing of water heaters, heating appliances, and how they work; LP Gas heating controls, installing of heating equipment, servicing of heating appliances, principles of air conditioning, LP Gas refrigerators, cooling by heating, operation of LP Gas clothes dryers, the installing of and servicing of these dryers and installing and servicing of incinerators. The last phase of this course deals with the correct venting of all LP Gas equipment.

**LPG 104 lp gas service iv (6)** This course deals with the agricultural, commercial and industrial application as well as LP Gas carburetion. It covers the use of feed for animals and plants, the use of LP Gas in dehydrating farm

products, and commercial and industrial uses of LP Gas. Also studied are portable LP Gas industrial equipment, nonportable equipment, commercial cooking and heating equipment. There is a specialized study of LP Gas carburetion and installing and servicing of such carburetion units; this phase takes place in the automotive department of the college.

**LPG 191, 192, 193, 194, 295, 296, 297 lp gas cooperative o.j.t. (variable)**

Students enrolled in LP Gas O.J.T. are awarded credit towards a degree or certificate via supervised work experience. When a student enrolls for LP Gas O.J.T., he must be employed in a job and at a job station that meets the program's occupational standards; or, the student must accept employment at one of the approved training stations developed by the O.J.T. Coordinator. No credit will be given to the student who is not employed in one of the above two conditions, i.e., employment without O.J.T. Coordinator approval. Credit is earned on a one to thirty ratio—one quarter hour of credit for thirty hours of work at an approved and supervised training sta-

tion. Training agreements establish a work location as a training station; students will be periodically visited by the O.J.T. Coordinator at the training stations; and students will keep weekly report sheets.

Credit for previous work experience may be granted upon approval of the O.J.T. Coordinator and Division Director based on work records.

**LPG 201 lp gas management (3)** This course deals with the management of the LP Gas plant. It is specialized instruction in the establishment of routes, training of personnel, operation of the office and general management of the business.

**LPG 205 lp gas service and maintenance**

**i (6)** This course is designed to bring to the person on campus continual programs in servicing and maintenance of LP Gas equipment in order to maintain up-to-date procedures in how to work with LP Gas fires.

**LPG 206 lp gas service and maintenance**

**ii (5)** This course covers practical applications and maintenance techniques used in field problems.



# RADIO BROADCASTING TECHNOLOGY

**RAB 100 introduction to broadcasting**

(3) An introduction to various areas of radio and of the broadcasting field in general. This course includes lectures, discussions, observations of operations and the use of surveys.

**RAB 115 radio news & delivery (3)** The fundamentals of news gathering, writing and presentation are taught and practiced.

**RAB 121 radio announcing i (5)** This course is designed to teach the basic operational procedures and practices of audio control room functions. This will be the behind-the-scenes preparation for airplay and preparation for actual radio announcing.

**RAB 132 radio writing, continuity, news (2)** This course will prepare the student for the writing of commercials and news stories, pointing out the differences in written presentation necessary for broadcast work.

**RAB 143 radio production (4)** Lectures and discussions on the art of producing commercials for radio followed by actual lab work.

**RAB 144 radio programming (3)**

Instruction and practice in the preparation and delivery of various types of radio programming. Emphasis is placed on how specific production techniques can be used to make a more professional sound.

**RAB 210 radio review or specialization**

(5) This course permits the student to concentrate either on a general review or in areas of special interest.

**RAB 216 radio news ii (3)** In this course the student is trained in the coverage of news stories. He becomes acquainted with key news sources, typical of any community, large or small. He reports certain news stories for classroom evaluation and for broadcast.

**RAB 222 radio announcing ii (5)** Students combine knowledge of RAB 121 with new materials of format preparation and presentation in the manner required of the typical announcer-operators found in the smaller radio stations.

**RAB 223 radio announcing iii (5)** In this course the student works to perfect his announcing and control room techniques and helps prepare promotional spots and shows for broadcast.

**RAB 230 radio salesmanship (3)** Instruction on selling advertising for radio. Comparison with selling in other areas; the techniques of radio selling.

**RAB 240 radio management (3)** A course that concentrates on the managerial duties of various executives within the radio field; specifically, Program Director, Sales Manager, and General Manager. The design of this course is to give the student an understanding of some of the problems and methods of management.

**RAB 250 radio production techniques (3)** This course explores the planning and implementation of various kinds of radio production techniques and situations.

**RAB 260 fcc examination preparation i (3)** In order to qualify for an announcer's job, you must have a 3rd class endorsed radio telephony license. This course covers the material required to pass the FCC examination.

**RAB 261 fcc examination preparation ii (3)** Prerequisite: RAB 260. This covers elements 1, 2, and 9.

**RAB 262 fcc examination preparation iii (2)** Prerequisite: RAB 261. A continuation of RAB 261.

**RAB 191, 192, 193, 194, 295, 296, 297 radio broadcasting cooperative o.j.t. (variable)** Students enrolled in Radio Broadcasting O.J.T. are awarded credit towards a degree or certificate via supervised work experience. When a student enrolls for Radio Broadcasting O.J.T., he must be employed in a job and at a job location that meets the program's occupational standards; or, the student must accept employment at one of the approved training stations developed by the O.J.T. Coordinator. No credit will be given to the student who is not employed in one of the above two conditions, i.e., employment without O.J.T. Coordinator approval. Credit is earned on a one to thirty ratio—one quarter hour of credit for thirty hours of work at an approved and supervised training station. Training agreements establish a work location as a training station; students will be periodically visited by the O.J.T. Coordinator at the training location; and students will keep weekly report sheets.

Credit for previous work experience may be granted upon approval of the O.J.T. Coordinator and Division Director based on work records.



# VOCATIONAL SPECIALTY COURSES

**VOC 032 upholstery (2)** A basic course providing instruction in springing, cushion filling, padding and covering by working on personal pieces of furniture. Students will have access to machines and tools. Class projects must be approved by the instructor.

**VOC 040 interior decorating (3)** This course offers a general outline of the subject of interior decoration and the principles involved as a basis for further personal or professional interest. Drawing, color theory, and decoration design are taught as they relate to specific situations. Floor plans, with reference to furniture arrangement, and treatment of a modern home are studied.

**VOC 044, 046, 047 young farmers (1-6)** This course is a planned continuing education system for Young Farmers that investigates areas of topical interest throughout the year.

**VOC 050 beginning welding (3)** This course is designed to introduce the student to welding equipment and its correct usage, welding techniques, types of welds, and welding positions and brazing.

**VOC 051 intermediate welding (3)** Advanced techniques, tools, and materials used in acetylene welding and cutting and vertical and overhead arc welding. Especially useful for the rancher, farmer, the builder, and others who need to make or repair metal equipment.

**VOC 052 advanced welding (3)** A continuation of intermediate welding that increases welding skills and examines other repair techniques.

**VOC 060 medical terminology (2)** A study designed to acquaint the student with the origin and structure of medical terms. The intent of this course is to help the student interpret and understand medical terms, reports, and therapy requests applicable to his field.

**VOC 063 nurses aide (18)** This course involves four subject areas, lasts a total of 10 weeks. The subjects covered are: 1. Basic Personal Care; 2. Home Health Care which teaches the home care needs of patients; 3. The ethics and responsibilities of a nursing assistant; and 4. Patient Care Awareness, which

teaches the student to be aware of common disease factors in patients.

**VOC 064 nursing in-service training (½-2)** Held monthly in most Northeast Colorado community hospitals. These sessions are designed specifically to partially fulfill voluntary recertification requirements as set forth by the Colorado Nursing Association. Monthly topics vary and should be of value to all hospital and nursing home nursing staff.

**VOC 065 special studies in health occupations (variable)** Provides an opportunity for the serious minded Health Occupations student to engage in intensive study and research on a special topic under the direction of a qualified faculty member. Conditions for electing this course will be evaluated by the Director of Occupational Education, who will assist in selecting an advisor and determining the amount of credit to be granted for successful completion of the work.

**VOC 070 ground school for pilots (3)**  
This class utilizes lecture, discussion, audio-visual aids, and practice tests to prepare the

student to pass the written portion of the test leading to a private pilot's license. Included in the course is principles of flight and aircraft performance, flight instruments, F.A.A. regulations, meteorology, charts, plotters, flight computers, and radio navigation and control.

**VOC 075 police science seminar (1-3)** A series of seminars offered on a periodic basis to local law enforcement personnel as in-service training to upgrade professional skills. Offerings cover a wide range of subjects including ethics, social sciences, law and technical aspects of law enforcement.

**VOC 076 fire science in-service (1-3)**  
MCC, in cooperation with the Colorado State Board of Community Colleges and Occupational Education, is offering in-service training programs for firemen at local volunteer fire department on a continuous basis. Sessions are taught by experienced instructors from the Denver area and cover a variety of training topics. Times, places, and subjects are available locally at fire departments.

