120 HISTORY OF ARCHITECTURE I
3 Units
Art 120 is a survey course of architectural styles from their origin in prehistoric times to the Gothic period. Lecture 3 hours. Prerequisite: None. Transfer credit: CSU, UC, USC

121 HISTORY OF ARCHITECTURE II
3 Units
Art 121 is a survey course of architectural styles from the Renaissance to the present. Lecture 3 hours. Prerequisite: None. Transfer credit: CSU, UC, USC

124 SOUTHERN CALIFORNIA ART MUSEUMS
1 Unit
Art 124 is an introduction to the history of art museums, specifically the Southern California Art Museums. The course covers collections, current exhibitions, conservation of artifacts and administrative functions. There are guided visits to: The J. Paul Getty Museum’s Greek and Roman art collection as well as research, conservation and administration departments; The Huntington Library Art Museum’s educational setting for and collection of Eighteenth Century English art; The Norton Simon Collection; and The Los Angeles County Museum of Art’s major current exhibit. Lecture 3 hours. Prerequisite: None. Transfer credit: CSU

125 HISTORY OF MOTION PICTURES
3 Units
Art 125 is the historical and aesthetic introduction to the appreciation of motion pictures through the analysis of audio and visual techniques which can make the film an expressive means of communication. Selected motion pictures are screened. Lecture 3 hours. Prerequisite: None. Note: Each week students will be required to see one film chosen from the instructor’s list of pertinent films available on television and in local theaters. Transfer credit: CSU, UC, USC

199 HISTORY OF PHOTOGRAPHY
3 Units
Art 199 is a survey of international photography from its beginnings through contemporary developments in the field. Students examine photography as a medium of artistic and social communication. Prerequisite: None. Transfer Credit: CSU

120 HISTORY OF ARCHITECTURE I
3 Units
Art 120 is a survey course of architectural styles from their origin in prehistoric times to the Gothic period. Lecture 3 hours. Prerequisite: None. Transfer credit: CSU, UC, USC

121 HISTORY OF ARCHITECTURE II
3 Units
Art 121 is a survey course of architectural styles from the Renaissance to the present. Lecture 3 hours. Prerequisite: None. Transfer credit: CSU, UC, USC

124 SOUTHERN CALIFORNIA ART MUSEUMS
1 Unit
Art 124 is an introduction to the history of art museums, specifically the Southern California Art Museums. The course covers collections, current exhibitions, conservation of artifacts and administrative functions. There are guided visits to: The J. Paul Getty Museum’s Greek and Roman art collection as well as research, conservation and administration departments; The Huntington Library Art Museum’s educational setting for and collection of Eighteenth Century English art; The Norton Simon Collection; and The Los Angeles County Museum of Art’s major current exhibit. Lecture 3 hours. Prerequisite: None. Transfer credit: CSU

125 HISTORY OF MOTION PICTURES
3 Units
Art 125 is the historical and aesthetic introduction to the appreciation of motion pictures through the analysis of audio and visual techniques which can make the film an expressive means of communication. Selected motion pictures are screened. Lecture 3 hours. Prerequisite: None. Note: Each week students will be required to see one film chosen from the instructor’s list of pertinent films available on television and in local theaters. Transfer credit: CSU, UC, USC

199 HISTORY OF PHOTOGRAPHY
3 Units
Art 199 is a survey of international photography from its beginnings through contemporary developments in the field. Students examine photography as a medium of artistic and social communication. Prerequisite: None. Transfer Credit: CSU

130 DESIGN I
3 Units
Art 130 is an introduction to the structure of two-dimensional art. This course provides fundamental understanding and control of the elements of design and the principles by which they can be related to solving design problems. The course is basic for art students and is helpful to students in related fields. Lecture 2 hours, studio 2 hours. Prerequisite: None. Note: Students receiving a score of 4 or 5 on the Advanced Placement Examination (CEEB) in Studio Art may be given credit for Art 130 and Art 150 at Glendale Community College contingent upon approval of their portfolio by the art faculty. Transfer credit: CSU, UC, USC

131 DESIGN II
3 Units
Art 131 is advanced study in two-dimensional art structure. The study is developed in a series of problems. Some problems concentrate on advanced color study; some on space manipulation, some on understanding (through practice) the current concepts at work in the fine and decorative art fields. Whenever possible problems reflect directions dominating the current art scene. Lecture 2 hours, studio 2 hours. Prerequisite: Art 130. Transfer credit: CSU, UC, USC

132 TYPOGRAPHY I
3 Units
Art 132 is an introduction to basic composition and principles of typography. The course includes a survey of type from its origins to current technology and an introduction to typographic nomenclature and type specification. Using hand skills and the Macintosh computer, projects focus on typographic design, resonance and composition. Students develop skills regarding visually interesting letter forms and their uses in typographic design. Prerequisites: Art 130. Transfer credit: CSU

133 TYPOGRAPHY II
(Formerly Lettering)
3 Units
Art 133 is an introduction to basic composition and principles of typography. The course includes a survey of type from its origins to current technology and an introduction to typographic nomenclature and type specification. Using hand skills and the Macintosh computer, projects focus on typographic design, resonance and composition. Students develop skills regarding visually interesting letter forms and their uses in typographic design. Prerequisites: Art 130. Transfer credit: CSU

134 GRAPHIC DESIGN I
(Formerly Advertising Design I)
3 Units
Art 134 is an introduction to the art of visual communication. Through a series of projects, the course introduces students to the fundamentals of design, problem solving strategies, and historical and practical aspects of graphic design. Using the Macintosh computer and traditional design materials and processes, students develop both hand and computer skills. Students are introduced to the use of current software applications and local service bureaus for the final production of assigned projects. During class critiques of final art projects, the verbal and visual presentation skills necessary to communicate with future clients are introduced. Critiques focus on appropriate solutions, visual interest and craftsmanship. Lecture 2 hours, studio 4 hours. Prerequisite: Art 132. (Art 132 may be taken concurrently.) Transfer credit: CSU

135 GRAPHIC DESIGN II
(Formerly Advertising Design II)
3 Units
Art 135 provides the creative and analytical methods used to create appropriate and visually interesting graphic designs. Course projects explore alternative methods for creating design imagery. Macintosh computer skills are further developed using current software applications. During class critiques of final art projects, the verbal and visual presentation skills necessary to communicate with future clients are further developed. Lecture 2 hours, studio 4 hours. Prerequisite: Art 134. Transfer credit: CSU

136 GRAPHIC DESIGN III
(Formerly Advanced Advertising Design I)
3 Units
Art 136 is an advanced design course. Students develop complex graphic identities, logos and publication structures. Students experiment with two dimensional graphics on three dimensional forms. Visual and verbal skills are studied to instruct students in the professional skills needed in creative design presentations. Students develop computer skills by using current software applications. Class critiques of final art projects focus on appropriate solutions, visual interest, and craftsmanship. Lecture 2 hours, studio 4 hours. Prerequisite: Art 135. Transfer credit: CSU
Art 136.

Units may be earned.

Art 130.

2 hours.

Art and environmental design, stage design, lighting, and industrial design, architecture, interior design, set design, lighting, and accessory planning.

Art 141.

INTERIOR DESIGN
(Also listed as Architecture 141)

3 Units

Art 141 begins with the study of the floor plan and architectural background and moves through the selection and arrangement of furniture, floor, and window treatments, lighting, and accessory planning. Emphasis is placed on the use of design elements such as color, line, shape, texture, pattern, space, and their interaction with one another in the interior environment. Lecture 3 hours. Recommended preparation: Art 130. Note: This course may not be taken for credit by students who have completed Architecture 141. Transfer credit: CSU.

Art 142.

COLOR THEORY AND APPLICATION

3 Units

Art 144 is an introductory course in color theory and application designed to meet the needs of art/non-art majors and minors in related fields of study such as: drama, music, production, apparel design, architecture, interior design, set design, lighting, fabric design, advertising and poster art. This course also deals with the nature and properties of color, its expressive potential and symbolic qualities. Lecture 2 hours, laboratory 2 hours. Recommended preparation: Art 130. Transfer credit: CSU.

Art 146.

VISUAL LITERACY

3 Units

Art 146 is an introduction to the creative problem solving process. This course provides students with a fundamental understanding of strategies for achieving creative and innovative solutions which emphasize personal interpretation and expression. Students analyze various modes of problem solving, image generation, and image combination to select the appropriate mode for creating visual imagery. Projects introduce the use of metaphor, cliche, symbol, art history, and signifiers in art conceptualization. Lecture 2 hours, studio 4 hours. Recommended preparation: Art 130. Transfer credit: CSU, UC.

Drawing

Art 150.

DRAWING I

3 Units

Art 150 is a basic drawing course dealing with the fundamentals of pictorial organization. The various means of representing the three-dimensional aspects of forms on a flat surface are emphasized. Drawings for this course are normally size 18" x 24" unless otherwise specified for special projects. Lecture 2 hours, studio 2 hours. Recommended preparation: Art 130. Note: Students receiving a score of 4 or 5 on the Advanced Placement Examination (CEEB) in Studio Art may be given credit for Art 130 or 150 at Glendale Community College contingent upon approval of their portfolio by the art faculty. Transfer credit: CSU, UC, USC (CAN ART 8).

Art 151.

DRAWING II

3 Units

Art 151 is a second semester drawing course designed to enable students to further their abilities in drawing forms in depth, composition, and various drawing techniques. Lecture 2 hours, studio 2 hours. Prerequisite: Art 150. Transfer credit: CSU, UC, USC.

Art 152.

LIFE DRAWING I

3 Units

Art 152 is a beginning course in drawing the figure from life. Quick drawings, as well as progressively longer drawings are done to explore the relationship of movement to form. Emphasis is placed on personal expression and interpretation as well as on proportion and structure. Special studies in artistic anatomy are also developed. This course is recommended for all art majors. Lecture 2 hours, studio 2 hours. Prerequisite: Art 150. (Art 150 may be taken concurrently.) Recommended preparation: Art 130. Transfer credit: CSU, UC, USC.
153 LIFE DRAWING II
3 Units
Art 153 is the continuation of basic studies in drawing the figure from life. Further emphasis and attention is given to arrangement and compositional studies incorporating the figure. Expression of use of media for drawing the figure is explored. Lecture 2 hours, studio 2 hours. Prerequisite: Art 152. Transfer credit: CSU, UC, USC

154 ADVANCED LIFE DRAWING I
3 Units
Art 154 is the continuation of basic studies in drawing the figure from life. Emphasis is placed on using the figure in compositions. Creative use of the figure is stressed. Drawings should extend beyond “studies” and become personal statements. Increases emotional expression in drawings. Students may do one or more problems in three dimensions. Lecture 2 hours, studio 2 hours. Prerequisite: Art 153. Transfer credit: CSU, UC, USC

155 ADVANCED LIFE DRAWING II
3 Units
Art 155 is the continuation of basic studies in drawing the figure from life. Figure compositions are stressed. Students are encouraged to use the figure in creative and expressive drawings. A major project is required; this may follow an avenue of individual interest. Lecture 2 hours, studio 2 hours. Prerequisite: Art 154. Transfer credit: CSU, UC, USC

156 ILLUSTRATION I
3 Units
Art 156 is designed to acquaint the student with various types of illustration such as book, movie poster, editorial, spot, and magazine story. Emphasis is placed on learning a number of specific techniques which enable the student to work quickly while achieving a professional look. A variety of media is explored. The focus of this course is fine arts rather than technical or product illustration. Lecture 2 hours, studio 2 hours. Prerequisite: Art 130, 150, 151. (Art 151 may be taken concurrently.) Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU

157 PORTFOLIO PREPARATION
3 Units
Art 157 is designed to help art majors with preparation of a professional level portfolio or “book” to be used for application to an upper division art school or for employment interviews. Students develop and sharpen their interview skills and learn how to produce an effective resume. Lecture 2 hours, studio 2 hours. Prerequisite: None. Transfer credit: CSU

158 LIFE DRAWING LABORATORY
1 Unit
NON-DEGREE APPLICABLE
Art 158 enables life drawing students to have additional supervised life drawing studio time, and to increase their technical drawing and design skills relative to concurrent enrollment in a life drawing course. Studio 4 hours. Corequisite: Enrollment in one of the following: Art 152, 153, 154, 155, 201, 205, or 206. Note: This course may be taken 4 times; a maximum of 4 units may be earned.

PAINTING

160 PAINTING I
3 Units
Art 160 develops skill, technique, and composition in drawing and painting, using media such as oils and acrylics. Problems include representation and abstraction. Lecture 2 hours, studio 2 hours. Prerequisite: Art 150. (Art 150 may be taken concurrently.) Recommended preparation: Art 130. Transfer credit: CSU, UC, USC (CAN ART 10)

161 PAINTING II
3 Units
Art 161 is the application of principles, theories, and techniques of drawing and painting to problems of still life, figure, landscape, and non-objective painting. Lecture 2 hours, studio 2 hours. Prerequisite: Art 160. Transfer credit: CSU, UC, USC

162 ADVANCED PAINTING I
3 Units
Art 162 applies the principles of art in drawing and painting for the more advanced student. Contemporary concepts in painting are explored. Individual assignments are given which emphasize personal interpretation and expression. Lecture 2 hours, studio 2 hours. Prerequisite: Art 161. Recommended preparation: Art 151. Transfer credit: CSU, UC, USC

163 ADVANCED PAINTING II
3 Units
Art 163 is a continuation of Art 162. Special problems are assigned to the student on an individual basis. Painting problems may include figure painting and the figure in relation to architectural forms. The student is encouraged to work from imagination as well as from direct visual experience. Field trips to museums and galleries are included in the course of instruction. Lecture 2 hours, studio 2 hours. Prerequisite: Art 162. Transfer credit: CSU, UC, USC

164 WATER COLOR I
3 Units
Art 164 is a study of the water color medium and techniques. The problems of painting are directed with a regard for the special qualities of water color. Class problems include various approaches to landscape painting, still life, and figure painting. Other problems emphasizing abstraction and non-objective painting are explored. Outdoor painting trips are used to help gain experience and skill in landscape painting. Lecture 2 hours, studio 2 hours. Prerequisite: Art 150. (Art 150 may be taken concurrently.) Recommended preparation: Art 130. Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU, UC, USC

165 WATER COLOR II
3 Units
Art 165 is a continuation of the study of water color painting for the more advanced student. The application of general principles and theories of painting in reference to the special qualities of the water color medium is expanded. Class problems include experimentation of a variety of techniques and stylistic approaches. Individual interpretation and expression are encouraged. Lecture 2 hours, studio 2 hours. Prerequisite: Art 164. Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU, UC, USC
PRINTMAKING

170 PRINTMAKING I
3 Units
Art 170 is an introduction to various printing processes including linoleum cuts, woodcuts, engraving, drypoint, etching, and aquatint. Creative personal approaches to printmaking are encouraged. Technical and expressive qualities of the various media are explored. Lecture 2 hours, studio 2 hours. Prerequisite: Art 130 or 150. Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU, UC, USC

171 PRINTMAKING II
3 Units
Art 171 explores various approaches and techniques of intaglio printing with special emphasis on color printing. Lecture 2 hours, studio 2 hours. Prerequisite: Art 170. Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU, UC, USC

172 LITHOGRAPHY I
3 Units
Art 172 is an introduction to the techniques and methods of lithography using metal plates as well as stone. This first semester course in lithography deals primarily with black and white as the graphic foundation for lithography. The student is encouraged to explore the creative possibilities of the medium and its wide variety of expressive qualities. Lecture 2 hours, studio 2 hours. Prerequisite: Art 171 or equivalent. Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU, UC, USC

173 LITHOGRAPHY II
3 Units
Art 173 explores various approaches to color printing involving multiple plates as well as stones. Lecture 2 hours, studio 2 hours. Prerequisite: Art 172 or equivalent. Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU, UC, USC

174 SILK SCREEN PRINTING
3 Units
Art 174 is an introduction to silk screen printing. The course includes preparation of equipment, various methods of stencil preparation, printing on paper and cloth and printing with a variety of paints and dyes. The first two or three problems are designed for all beginning students. The following projects provide options for choice. Students may choose an option that relates to their personal interests and career plans. The range of these optional project choices includes fine arts, graphic arts, decorative arts, and artist craftsman type projects. In the second semester, students are encouraged to do more challenging projects. Each new project provides a gain in the student’s command of screen printing techniques. Individual interests are used to personalize the instruction to the maximum. Lecture 2 hours, studio 2 hours. Recommended preparation: Art 130. Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU, UC, USC

175 SILK SCREEN PRINTING
3 Units
Art 175 is an advanced study of silk screen printing. The course includes preparation of specialized equipment and research and experimentation to encourage creative use of the medium. Challenging problems are selected which relate to the personal interests of each student. Lecture 2 hours, studio 2 hours. Prerequisite: Art 174. Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU, UC, USC

177 AIR BRUSH I
1 Unit
Art 177 is designed to develop the ability of the student to use the ingredients, methods, and techniques of air brush from start to finish. Though the course does not require skilled art application, it deals with the fundamentals of design, layout, lines, dots, shading, black and white water color, types of frisket, and paper. Students have the opportunity to use two types of air brushes and to learn about other available types. Lecture 1 hour, laboratory 3 hours. (9 week class) Recommended preparation: Art 130 and 150 or 134. Note: This course may be taken 3 times; a maximum of 3 units may be earned. Transfer credit: CSU, UC, USC

178 AIR BRUSH II
1 Unit
Art 178 teaches the advanced operation and use of the air brush. The course introduces color into the designs and uses the basic knowledge obtained in Art 177. Students develop the skills of blending and selecting color, creating texture, and focusing on creative design to achieve the desired results. Lecture 1 hour, laboratory 3 hours. (9 week class) Prerequisite: Art 177. Note: This course may be taken 3 times; a maximum of 3 units may be earned.

SCULPTURE

180 SCULPTURE I
3 Units
Art 180 is a series of sculptural problems in relief and in the round, which leads the student through exploratory investigations of various media and techniques, such as clay modeling, plaster, and stone carving, construction and assemblage. Emphasis is on problems of historical and contemporary interest and importance. This course is recommended for art majors and pre-dental, industrial design, and stage design students. Lecture 2 hours, studio 2 hours. Recommended preparation: Art 130 and 138. Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU, UC, USC (CAN ART 12)

181 SCULPTURE II
3 Units
Art 181 allows the student to continue explorations into the sculptural discipline. A series of sculptural problems, including modeling the complete figure in clay, building three-dimensional forms with plaster and wire armature, carving in hard stone such as alabaster, carving in wood, construction and assemblage, and mixed media are studied in depth. Emphasis is on mastery of technique, further development of aesthetic and conceptual consideration, and self-motivation. The instructor works with each student on an individual basis to provide technical and conceptual assistance. Lecture 2 hours, studio 2 hours. Prerequisite: Art 180 Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU, UC, USC
282 METHODS AND MATERIALS FOR THE SCULPTOR
3 Units
Art 282 explores a variety of methods and materials available to the artist today, including techniques for working in wood, plastic, and metal. The students continue to improve their understanding of constructive processes, and learn safety in the sculpture laboratory. Lecture 2 hours, studio 2 hours. Recommended preparation: Art 138 or 180. Note: This course may be taken 2 times; a maximum of 6 units may be earned.

283 FIGURE MODELING
3 Units
Art 283 develops an understanding of measurement, proportion, movement, geometric shape, and the basic form of the human body through observation of live models. Students explore their expressive sculptural sensibilities using clay as the primary medium. Lecture 2 hours, studio 2 hours. Recommended preparation: Art 138, 180 or equivalent. Note: This course may be taken 2 times; a maximum of 6 units may be earned.

284 MOLD MAKING FOR THE SCULPTURE
3 Units
Art 284 explores a variety of mold making techniques, and experiments with a variety of casting materials. While the concentration in this class is on technical processes, students acquire these skills in order to expand and enhance their options for expressive sculpture. Lecture 2 hours, studio 2 hours. Recommended preparation: Art 138 or 180. Note: This course may be taken 2 times; a maximum of 6 units may be earned.

285 SCULPTURE LAB
1 Unit
NON-DEGREE APPLICABLE
Art 285 enables sculpture students to have additional supervised studio time, and to increase their laboratory skills relative to concurrent enrollment in sculpture classes. Studio 4 hours. Prerequisite: None. Co-requisite: Students enrolled in this course must be concurrently enrolled in Art 138, 180, 181, 282, 283, or 284. Note: This course may be taken 4 times; a maximum of 4 units may be earned.

CERAMICS

186 CERAMICS
3 Units
Art 186 is an introductory study in the field of ceramics. Students learn various forming techniques, with an emphasis on wheel-throwing and the production of functional pottery forms. Surface techniques such as texturing, underglazing, slip decoration, glaze application, and the use of lusters are explored. Lecture 2 hours, studio 4 hours. Prerequisite: None. Transfer credit: CSU, UC, USC

187 CERAMICS
3 Units
Art 187 is a continued study of the fundamentals of the ceramic process that explores various slab construction and wheel-throwing techniques. Wheel-throwing skills are sharpened by concentrated exercises to increase the size, speed, and production quality. Students select and formulate glazes of their own choice, and the firing process is studied in greater detail. Lecture 2 hours, studio 4 hours. Prerequisite: Art 186. Transfer credit: CSU, UC, USC

188 ADVANCED CERAMICS I
3 Units
Art 188 emphasizes advanced work on the potter’s wheel with consistency and accuracy of results. The awareness of three-dimensional forms and surface pattern is heightened by individual and group critiques. The students work toward a more individual statement by further experimentation with a variety of clay bodies, glazes, and firing techniques. They design and execute multiples and sets. Under supervision the students assist in loading and firing of kilns. Lecture 2 hours, studio 4 hours. Prerequisite: Art 187. Transfer credit: CSU, UC, USC

189 ADVANCED CERAMICS II
3 Units
Art 189 is a course designed for the advanced student who wishes to pursue an individual direction in depth. Students propose a semester outline, concentrating on specific techniques, materials, and firing procedures. Upon instructor approval of the proposal, students are expected to work independently, formulating personal clay bodies, glazes and working techniques. Reading and research assignments are made where applicable. Lecture 2 hours, studio 4 hours. Prerequisite: Art 188. Note: This course may be taken 3 times; a maximum of 9 units may be earned. Transfer credit: CSU, UC, USC

190 CERAMIC HANDBUILDING
3 Units
Art 190 is an introduction to basic ceramic hand-building techniques and processes. Traditional methods of forming, joinery and construction are introduced. Students learn to design and analyze functional and non-functional objects. The class explores traditional hand-built pottery, as well as contemporary, expressive hand-built forms. Lecture 2 hours, studio 4 hours. Prerequisite: None. Transfer credit: CSU, UC, USC

191 ADVANCED CERAMIC HANDBUILDING
3 Units
Art 191 allows students to explore complex problems of design and construction. They work with the ceramic medium in conjunction with other materials while exploring possibilities of designing for architecture. In-depth studies of surface design and decorative techniques are included. Lecture 1 hour, studio 5 hours. Prerequisite: Art 190. Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU, UC, USC

192 EARTHENWARE
3 Units
Art 192 is an intermediate course in ceramics dealing specifically with earthenware, or low-fired ceramics. A variety of forming techniques are studied, including slab, coil, and wheel. Students experiment with earthenware, clay bodies, glazes, underglazes, and slips. Specific projects will include nerikomi (colored clay inlay), majolica (onglaze painting), and overglaze (lusters, china paints, and decals). Students learn how to load and fire an electric kiln. Lecture 2 hours, studio 4 hours. Prerequisite: Art 186 or 190. Recommended preparation: Art 130. Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU, UC, USC

193 RAKU
3 Units
Art 193 is an introductory course in ceramics dealing exclusively with the raku firing process. Projects are drawn from a variety of forming methods including coil, slab, pinch, and wheel, which are fired by the Japanese raku process. Students also prepare raku clays and glazes to use in the execution of their projects. Lecture 2 hours, studio 4 hours. Prerequisite: Art 186 or 190. Recommended preparation: Art 130. Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU, UC, USC
195
GLAZE CALCULATION
3 Units
Art 195 is an introduction to basic glaze and clay calculation. The students learn to calculate molecular weights, empirical formula, unity formula, and batch formula. Students use general glaze theory with calculating procedures to analyze and substitute (or create from beginning) glazes and clay bodies. The course involves simple arithmetical computations and includes certain ceramic laboratory skills and safety precautions for handling chemicals. This course prepares the vocational student for employment in the ceramic industry. Lecture 2 hours, studio 4 hours. Prerequisite: Art 187 or 191. Note: This course may be taken 2 times; a maximum of 6 units may be earned.

198
HISTORY OF WORLD CERAMICS
3 Units
Art 198 is a survey of the most important and influential periods of pre-historic, Mediterranean, European, Middle Eastern, Pre-Columbian, and Asian ceramic art. Lecture 3 hours. Prerequisite: none. Transfer credit: UC, CSU

ANIMATION
201
DRAWING FOR ANIMATION
3 Units
Art 201 provides students drawing instruction pertinent to the field of animation. The course focuses on the creation of drawings depicting inner structure, weight, energy, movement, personality and emotion. Subjects relevant to animation including people, animals and expression are thoroughly explored. Drawing from life is important to the development of excellent rendering skills. A high volume of drawings are completed in class and students are required to keep a journal of drawings recorded from daily observation. Lecture 2 hours, studio 2 hours. Prerequisite: Art 152 or equivalent. Recommended preparation: Art 130. Note: This course may be taken 2 times; a maximum of 6 units may be earned. Transfer credit: CSU

205
FUNDAMENTALS OF ANIMATION I
3 Units
Art 205 provides students a traditional education in the fundamentals of animation. Students learn basic animation techniques and explore the use of those techniques in contemporary animated art. Effective composition and the use of color in motion are introduced. Lecture 2 hours, studio 2 hours. Prerequisite: Art 201 or equivalent. Recommended preparation: Art 130.

206
FUNDAMENTALS OF ANIMATION II
3 Units
Art 206 provides students the opportunity to build upon their previous knowledge of animation concepts and techniques. Students learn the procedure involved in bringing a creative idea from concept to final product. The focus of the semester is the creation of an animated short film. Lecture 2 hours, studio 2 hours. Prerequisite: Art 205 or equivalent. Recommended preparation: Art 130.

207
ANIMATION PRE-PRODUCTION
3 Units
Art 207 provides students the opportunity to build upon their knowledge of the fundamental concepts and techniques of classical animation. Students learn the procedures involved in developing a creative idea in a situation modeled on the professional animation film production process. Emphasis is placed on developing interesting characters in a simple story. Lecture 2 hours, studio 2 hours. Prerequisite: Art 206 or equivalent.

208
ANIMATION PRODUCTION
3 Units
Art 208 offers the student experience with the production and post-production aspects of creating a traditional character animated project. Students learn the procedures involved in bringing a creative idea from concept to final product. The focus of the semester is the creation of a short film in a pencil-test format. Lecture 3 hours, studio 2 hours. Prerequisite: Art 207 or equivalent.

210
ANIMATION STORYBOARDS
3 Units
Art 210 prepares students to analyze scripts and represent a story visually for film or videotape. Issues of basic story structure, character development, staging, continuity, clarity, and appeal in visual design are examined. Students focus on translating written text into a storyboard with an emphasis on maintaining story flow and using camera angles and movement. Lecture 2 hours, studio 2 hours. Prerequisite: Art 201 or equivalent. Recommended preparation: Art 130, 205, 206, English 115 or 116, and Theatre Arts 103. Note: This course may be taken 4 times; a maximum of 12 units may be earned. Transfer credit: CSU

218
INTERACTIVE MULTIMEDIA II
(Also listed as Computer Science/Information Systems 218 and Media Arts 218)
3 Units
Art 218 provides students with advanced training and experience in the creation of interactive multimedia programs. Industry standard software, such as Macromedia Director, is used with primary emphasis placed on the authoring process. Topics covered in the course include: Lingo scripting, interface design, navigation principles, cross-platform development, integration of audio, video, animated and virtual reality (VR) elements; and distribution for CD-ROM, DVD, and the Internet. Students create their own multimedia CD-ROM as a final project. Lecture 2 hours, laboratory 4 hours. Prerequisite: Media Arts 111 or Computer Science/Information Systems 111. Recommended preparation: Art 146, 220, and Media Arts 101. Note: This course may not be taken for credit by students who have completed Computer Science/Information Systems 218 or Media Arts 218.

220
TWO DIMENSIONAL DIGITAL ANIMATION
3 Units
Art 220, a Macintosh course, introduces various two dimensional animation techniques and styles using current software applications. The course focuses on creating two dimensional digital animation with photos, video, or flat art, by using storyboarding concepts, digitizing images for the computer, and digitally manipulating motion, timing, framing, sequencing, and sound. Concept development and effective use of composition, color and motion are emphasized throughout the course. Lecture 2 hours, studio 4 hours. Prerequisite: Photography 122, or equivalent. Recommended preparation: Art 205, 210, and either Photography 112 or Theatre Arts 133. Note: This course may be taken 4 times; a maximum of 12 units may be earned. Transfer credit: CSU
230 INTRODUCTION TO THREE-DIMENSIONAL ANIMATION AND MODELING
3 Units
Art 230 familiarizes students with key concepts and terminology in three-dimensional digital animation and modeling. The focus of the course is on basic movement, perspective, and theory. Topics including inverse kinematics, dynamic simulations, and motion capture are discussed. Lecture 2 hours, studio hours 4. **Prerequisite:** Art 138 and Art 220 or equivalents. **Recommended preparation:** Theatre Arts 133. **Note:** This course may be taken 4 times. A maximum of 12 units may be earned. **Transfer credit:** CSU

231 THREE-DIMENSIONAL ANIMATION I
3 Units
Art 231 emphasizes fundamental character setup and keyframing techniques. Students learn forward and inverse kinematic animation techniques. Lighting, surfaces texturing, and rendering skills are developed. Lecture 2 hours, studio 4 hours. **Prerequisite:** Art 230 or equivalent.

232 THREE DIMENSIONAL ANIMATION II
3 Units
Art 232 explores character set-up and design. Sophisticated skeleton inverse kinematics is explored. Advanced keyframing, shading, and rendering techniques are examined and used. Students learn to develop and implement dynamic simulations and visual effects. Lecture 2 hours, studio 4 hours. **Prerequisite:** Art 231 or equivalent. **Transfer credit:** CSU

233 THREE-DIMENSIONAL ANIMATION III
3 Units
Art 233 explores advanced character set-up and design. Students create unique characters and animation effects. Emphasis is placed on refining movement and character development. Advanced lighting and surface shading techniques are employed. Students create a short high-quality animation for their final project. Lecture 2 hours, studio 4 hours. **Prerequisite:** Art 232 or equivalent.

239 3D ANIMATION LAB
1 Unit
Art 239 is a supplemental laboratory course designed to help students further develop their production skills using three-dimensional digital animation media on the SGI platform. Laboratory 6 hours. **Prerequisite:** Art 231 or equivalent. **Note:** This course may be taken 4 times. A maximum of 4 units may be earned.

250 DESIGNING WEB GRAPHICS
3 Units
Art 250 is an introductory web design course that covers web design principles, web graphic creation and preparation, graphic interchange format (gif) animations, project planning, and web environment issues that affect design. Students create assigned projects with industry standard software. Concept and design are emphasized throughout the course. Lecture hours 2, studio/lab hours 4. **Prerequisite:** Photography 121 or equivalent. **Note:** Students who have completed Photography 250 may not take this class for credit.

251 WEB PAGE CREATION
3 Units
Art 251 is an intermediate-level web design course. Using industry standard wysiwyg software, students design and create web pages, using layout controls, tables, frames, layers, cascading style sheets, form creation, various types of links, rollovers, and layer animation. Design quality and concept are emphasized throughout the course. Lecture 2 hours, studio/lab 4 hours. **Prerequisite:** Photography 123. **Note:** Students who have completed Photography 251 may not take this class for credit.

255 INTERACTIVE WEB ANIMATION
3 Units
Art 255 is a web design course using industry standard software to create full-page, interactive vector-based web animations. Students learn the construction of multiple-layered animations with interactive buttons, movieclips, graphics, and embedded sound files with optimization for the web. Design quality and concept are emphasized throughout the course. Lecture 2 hours, studio/lab 4 hours. **Prerequisite:** Photography 123 or equivalent. **Note:** Students who have completed Photography 255 may not take this class for credit.

INTERIOR DESIGN,
See Art 141

FASHION ILLUSTRATION,
See Fashion Design
Merchandising 123

See also PHOTOGRAPHY

ASTRONOMY

102 OBSERVATIONAL ASTRONOMY
2 Units
Astronomy 102 maps the sky by means of bright stars and constellations. Small telescopes are used for observing celestial objects. Lecture 1 hour, laboratory 3 hours. **Prerequisite:** Astronomy 110 or 120. **Transfer credit:** CSU, UC, USC

103 TOPICS IN MODERN ASTRONOMY
3 Units
Astronomy 103 is designed for students who have completed a survey course in astronomy. This course deals with recent developments in astronomy. Specific topics covered are exploration of the solar system with spacecraft, general relativity and black holes, active galaxies and cosmology. Lecture 3 hours. **Prerequisite:** Astronomy 110 or 120. **Transfer credit:** CSU, UC, USC
AVIATION AND TRANSPORTATION

Students enrolling in some Aviation and Transportation courses will be required to purchase certain tools and equipment to meet the requirements of those courses. Students wishing to obtain tool and equipment lists in advance of registration should contact the appropriate instructor or department chair. Prior to applying for the FAA Examination, students are required to submit the proper paper work to Admissions and Records to obtain the official certificate.

112 PRIVATE PILOT LABORATORY I
1-2 Units
Aviation and Transportation 112 is a flight training laboratory course intended to begin the student’s preparation for the Federal Aviation Administration Private Pilot Certificate Oral and Practical Tests. Topics covered include: preflight inspection, weather briefings, starting procedures and use of checklists, taxi procedures, normal and cross wind takeoffs and landings, slips, four fundamentals of aircraft control, emergency procedures, traffic patterns, ground reference maneuvers, stalls, and radio communications. Laboratory 6 hours. Prerequisite: Aviation and Transportation 120. (Aviation and Transportation 120 may be taken concurrently.)

113 PRIVATE PILOT LABORATORY II
1-3 Units
Aviation and Transportation 113 is a flight training laboratory course intended to complete the student’s preparation for the Federal Aviation Administration Private Pilot Certificate Oral and Practical Tests. Topics covered include: night flying techniques, short and soft field takeoffs and landings, navigation, emergency procedures, power on/off stalls, s-turns across a road, turns around a point, and instrument flight procedures. Laboratory 9 hours. Prerequisite: Aviation and Transportation 112 or equivalent. Corequisite: Aviation and Transportation 121.

114 INSTRUMENT FLIGHT LAB
4 Units
Aviation and Transportation 114 is a flight training laboratory course instructing students to operate an airplane by reference to instruments. Topics include: basic and advanced attitude instrument flying, recovery from unusual attitudes, holding patterns, IFR en-route procedures, IFR cross-country planning, departure and arrival procedures, and precision and non-precision approach procedures. Lecture 2 hours, laboratory 6 hours. Prerequisites: Aviation and Transportation 113 or possession of a FAA Private Pilot Certificate (Single Engine Land) and; Aviation and Transportation 125 or proof of satisfactory completion of FAA Instrument Rating Knowledge Examination (AT 125 may be taken concurrently).

115 COMMERCIAL FLIGHT TRAINING
4 Units
Aviation and Transportation 115 is a flight training laboratory course preparing the student for the Federal Aviation Administration Commercial Pilot Practical Examination. Topics addressed include: operation of complex and high-performance aircraft including the use of constant-speed propellers and retractable landing gear, maximum performance takeoffs and landings, steep turns, chandelles, lazy eights, and eights on pylons. Students will log fifteen hours of complex aircraft time. Lecture 2 hours, laboratory 6 hours. Prerequisites: Aviation and Transportation 114 or possession of Federal Aviation Administration Private Pilot Certificate (airplane, single-engine land) with instrument rating, and; minimum of 200 hours of total flight time, and; AT 135 or proof of satisfactory completion of the Federal Aviation Administration Commercial Pilot Knowledge Examination (Aviation and Transportation 135m

117 AVIATION INSTRUCTOR COURSE
3 Units
Aviation and Transportation 117 is a course of ground instruction designed for the student who wishes to become an aviation flight instructor. Teaching theory, and types and methods of instruction an effective instructor uses are discussed. Analysis and performance of flight maneuvers are stressed. Lecture 3 hours. Prerequisite: Aviation and Transportation 119 and 120 or successful completion of the Private Pilot Written Examination or a Private Pilot Certificate.

119 PRACTICAL FLIGHT CONCEPTS
3 Units
Aviation and Transportation 119 is a ground training course designed for the student who is receiving flight training to gain experience necessary to meet the qualifications of a private pilot with an airplane rating. The course covers the practical flight concepts a pilot may encounter in most flight situations. Lecture 3 hours. Prerequisite: Aviation and Transportation 120 or successful completion of the Private Pilot Written Examination or a Private Pilot Certificate.

120 BASIC AERONAUTICS
5 Units
Aviation and Transportation 120 prepares the student for the Private Pilot Written Examination, and is taught under Federal Aviation Administration approved Private Pilot Ground School Certificate HH85190Q. The course covers powerplant operations, radio procedures and radio navigation, meteorology, and enroute navigation procedures common to the private pilot. Lecture 5 hours. Prerequisite: None. Transfer credit: CSU

121 NAVIGATION
3 Units
Aviation and Transportation 121 introduces the student to the aspect of dead-reckoning and pilotage navigation using the aeronautical chart. Composite navigation and vector analysis using the flight computer familiarizes the student with the practical features of navigation. Lecture 3 hours. Recommended preparation: Aviation and Transportation 120 or possession of a private pilot's certificate. Transfer credit: CSU

122 METEOROLOGY
3 Units
Aviation and Transportation 122 presents the basic principles of meteorology with emphasis placed on the physical laws that operate in the atmosphere, particularly as they affect aircraft flight. Weather maps, reports, and forecasts and their interpretation are stressed. Lecture 3 hours. Recommended preparation: Aviation and Transportation 120 or possession of a private pilot's certificate. Transfer credit: CSU
123 AIRCRAFT STRUCTURE AND AERODYNAMICS
3 Units
Aviation and Transportation 123 provides the pilot with the necessary understanding of the aerodynamics of the aircraft and of the construction techniques and processes involved in the building of aircraft. This course meets the requirements for commercial pilots in the study of aircraft. Lecture 3 hours. Recommended preparation: Aviation and Transportation 120 or possession of a private pilot's certificate. Transfer credit: CSU

124 RADIO PROCEDURES AND FLIGHT REGULATIONS
3 Units
Aviation and Transportation 124 is designed to provide the commercial pilot student with the necessary knowledge of radio navigation, radio-telephone communication procedures, and Federal Aviation Regulations required to pass the Federal Aviation Administration Commercial Pilot Written Examination. Lecture 3 hours. Recommended preparation: Aviation and Transportation 120 or possession of a private pilot's certificate. Transfer credit: CSU

125 INSTRUMENT PROCEDURES AND RADIO NAVIGATION
3 Units
Aviation and Transportation 125 introduces the student to the use of radio navigation, weather briefing, advanced navigation, standard instrument approaches, procedures and Federal Aviation Regulations pertaining to instrument flight. Students are prepared for the Federal Aviation Administration Instrument Pilot Written Examination. Lecture 3 hours. Prerequisite: Aviation and Transportation 120 or successful completion of the Private Pilot Written Examination or a Private Pilot Certificate. Corequisite: Aviation and Transportation 131. Transfer credit: CSU

126 AIRCRAFT POWERPLANTS
3 Units
Aviation and Transportation 126 introduces the student to aircraft powerplants, their construction, operation, maintenance, and servicing as they apply to the pilot. This course meets the requirements of the Federal Aviation Administration for Commercial Pilots in the study of aircraft engines. Lecture 3 hours. Recommended preparation: Aviation and Transportation 120 or possession of a private pilot's certificate. Transfer credit: CSU

127 FLIGHT TRAINING MANEUVERS
3 Units
Aviation and Transportation 127 presents in detail the procedures and methods for conducting the maneuvers required for the safe, skillful operation of the airplane. The performance and application of various maneuvers required by the Federal Aviation Administration for the Private and Commercial Pilot Flight Tests are examined. Lecture 3 hours. Recommended preparation: Aviation and Transportation 120 or possession of a private pilot's certificate. Transfer credit: CSU

128 AIRPORT OPERATIONS
3 Units
Aviation and Transportation 128 is an analytical lecture course of study which acquaints the student with practical airport administration problems that exist today. Completion of this course enables the student to perform and function effectively in any of the many diversified airport operations.

Course coverage includes airport development, site selection, local advertising, financial considerations and benefits to the community. Aviation safety within the confines of the airport, airport maintenance, familiarization with the Federal Aviation Administration and Federal Air Regulations governing airports as well as the National Transportation Safety Board. Lecture 3 hours. Recommended preparation: Aviation and Transportation 120 and 130. Transfer credit: CSU

129 FLIGHT ATTENDANT I
3 Units
Aviation and Transportation 129 prepares men and women for the highly competitive flight attendant positions and travel careers in the airlines and travel industry. Lecture 3 hours. Recommended preparation: Aviation and Transportation 120. (Aviation and Transportation 120 may be taken concurrently.)

130 AIR TRANSPORTATION
3 Units
Aviation and Transportation 130 introduces the student to the development of air transportation, problems in commercial air transportation, commercial aircraft, organization and functions of the airlines, regulations, airline routes in the United States and the pilot qualifications, schedules and services, revenue sources and potential operating overhead. The importance of airports, airways, advertising, and public relations is stressed. Lecture 3 hours. Prerequisite: None. Transfer credit: CSU

131 AIR TRAFFIC CONTROLLER
5 Units
Aviation and Transportation 131 prepares students for the Federal Aviation Administration Control Tower Operator Written Examination and assists them in the requirements necessary to apply for the position of air traffic control specialist, and is of value to those students preparing for the position of dispatcher, meteorologist, commercial pilot, and positions concerned with aircraft operations. Student and private pilots find this course informative; students preparing for their instrument rating receive much valuable information which assists them in preparing for the written examination and the flight check. Lecture 6 hours. Prerequisite: Aviation and Transportation 120 or successful completion of the Private Pilot Written Examination or a Private Pilot Certificate.

132 FLIGHT ATTENDANT II
3 Units
Aviation and Transportation 132 prepares men and women for the highly competitive flight attendant positions and travel careers in the airline and travel industry. Lecture 3 hours. Prerequisite: Aviation and Transportation 129. Recommended preparation: Aviation and Transportation 120. (Aviation and Transportation 120 may be taken concurrently.)

134 AMERICAN AVIATION TRAVEL HISTORY AND OPERATIONS
3 Units
Aviation and Transportation 134 introduces the students to aviation travel history and the manner in which related events have affected the nation socially, economically and politically. This study of aviation emphasizes the development, testing, and utilization of aircraft in California. Lecture 3 hours. Recommended preparation: Eligibility for English 120 or ESL 151.
135 COMMERCIAL PILOT GROUND SCHOOL  
3 Units  
Aviation and Transportation 135 prepares students for the Federal Aviation Administration Commercial Pilot Knowledge Examination. Topics addressed include: advanced aerodynamics, advanced aircraft weight and balance computations, advanced meteorology, advanced aerospace physiology; operation of complex and high-performance aircraft including use of constant-speed propellers, retractable landing gear, anti-icing/de-icing, oxygen, and cabin pressurization systems; Federal Aviation Regulations Parts 61, 91, and 135; maximum performance takeoffs and landings, steep turns, chandelles, lazy eights, and eights on pylons. Lecture 3 hours. Prerequisite: Aviation and Transportation 120 or equivalent.

136 AVIATION PSYCHOLOGY  
3 Units  
Aviation and Transportation 136 acquaints the professional pilot and flight attendant with an overview of aviation psychology. The influence of psychological factors on aviation safety, and the aviation professional's personal and occupational life is examined. Topics include human factors, human error, motivation and leadership, aviation stress management, group dynamics, attitudes and persuasion, assertiveness training, aircraft accident analysis, passenger psychology, career development, training, flight physiology, self-assessment, family and relationship issues, communications, ethics in professional aviation, and applications in space technology. Lecture 3 hours. Prerequisite: None.

137 AIRLINE TRAVEL CAREERS  
3 Units  
Aviation and Transportation 137 is designed for students pursuing careers in airline travel. The course presents the current industry hiring qualifications and requirements for entry level industry employees. Lecture 3 hours. Recommended preparation: Eligibility for English 120 or ESL 151.

141 AIRCRAFT POWERPLANT MAINTENANCE AND OVERHAUL  
8 Units  
Aviation and Transportation 141 consists of theoretical study and practical application of powerplant overhaul procedures, non-destructive testing, precision inspection, cooling systems, exhaust systems, lubrication systems, and Federal Aviation Administration Regulations. The course content is based on standards required for Federal Aviation Administration certificated schools. Approved Federal Aviation Administration Maintenance Technician School No. CL9T064R. Lecture 15 hours, laboratory 15 hours. Recommended preparation: English 177. Note: This class meets 6 hours per day, 5 days per week. The completion of Aviation and Transportation 141, 142, 143, and 144 qualifies students for industry employment as maintenance and overhaul technicians and prepares them practically and theoretically to successfully obtain the Federal Aviation Administration Powerplant Rating. Transfer credit: CSU

142 AIRCRAFT POWERPLANT MAINTENANCE AND OVERHAUL  
8 Units  
Aviation and Transportation 142 consists of practical application and theoretical study of electrical systems, magnetos, generators and starting systems. In addition, physical science and mathematics are studied as part of the Federal Aviation Administration General Test requirements. The course content is based on standards required for Federal Aviation Administration certificated schools. Approved Federal Aviation Administration Maintenance Technician School No. CL9T064R. Lecture 15 hours, laboratory 15 hours. Recommended preparation: English 177. Note: This class meets 6 hours per day, 5 days per week. The completion of Aviation and Transportation 141, 142, 143, and 144 qualifies students for industry employment as maintenance and overhaul technicians and prepares them practically and theoretically to successfully obtain the Federal Aviation Administration Powerplant Rating. Transfer credit: CSU

143 AIRCRAFT POWERPLANT MAINTENANCE AND OVERHAUL  
16 Units  
Aviation and Transportation 143 consists of theoretical study and practical application of fuel metering, fuel systems, induction systems, ground operations, materials and processes (corrosion control), fluid lines and fittings, engine indicating systems, batteries, engine inspection, and propellers. The course content is based on standards required for Federal Aviation Administration certificated schools. Approved Federal Aviation Administration Maintenance Technician School No. CL9T064R. Lecture 15 hours, laboratory 15 hours. Prerequisite: Aviation and Transportation 141 and 142. Note: This class meets 6 hours per day, 5 days per week. The completion of Aviation and Transportation 141, 142, 143, and 144 qualifies students for industry employment as maintenance and overhaul technicians and prepares them practically and theoretically to successfully obtain the Federal Aviation Administration Powerplant Rating. Transfer credit: CSU

144 AIRCRAFT POWERPLANT MAINTENANCE AND OVERHAUL  
7 Units  
Aviation and Transportation 144 consists of theoretical study and practical application of aircraft drawing, fabrication and installation of fluid lines and fittings, engine indicating systems, engine and airframe fire detection systems, aircraft weight and balance, aircraft welding, and maintenance forms and records. The course content is based on standards required for FAA certificated schools. Approved Federal Aviation Administration Maintenance Technician School No. CL9T064R. Lecture 25 hours, laboratory 5 hours. Prerequisite: Aviation and Transportation 143. Note: This class meets 6 hours per day, 5 days per week for 8 weeks. The completion of Aviation and Transportation 141, 142, 143, and 144 qualifies students for industry employment as maintenance and overhaul technicians and prepares them practically and theoretically to successfully obtain the Federal Aviation Administration Powerplant Rating. Transfer credit: CSU
145  
**AIRFRAME MAINTENANCE AND OVERHAUL**  
9 Units  
Aviation and Transportation 145 consists of theoretical study and practical application of structural repairs to aircraft including woodworking, riveting, layout practices and repairs to metal structures, hydraulic and pneumatic systems, landing gear systems and airframe anti-icing and de-icing systems. The course content is based on standards required for FAA certified schools. Approved FAA Maintenance Technician School No. CL 9T064R. Lecture 10 hours, laboratory 20 hours.  
**Prerequisite:** Aviation and Transportation 144 or a Federal Aviation Administration Powerplant Mechanics Certificate.  
**Note:** This class meets 6 hours per day, 5 days per week for 10 weeks. The completion of Aviation and Transportation 145 and 146 qualifies students for industry employment as maintenance and overhaul technicians and prepares them practically and theoretically to successfully obtain the Federal Aviation Administration Airframe Rating.  
**Transfer credit:** CSU

146  
**AIRFRAME MAINTENANCE AND OVERHAUL**  
16 Units  
Aviation and Transportation 146 consists of practical applications and theoretical study of structural repairs to aircraft, including dope and fabric, composites and plastics, fuel systems, control systems, rigging, cabin atmosphere control systems, Federal Aviation Administration forms, inspections and flight line maintenance. The course content is based on standards required for Federal Aviation Administration certified schools. Approved Federal Aviation Administration Maintenance Technician School No. CL 9T064R. Lecture 10 hours, laboratory 20 hours.  
**Prerequisite:** Aviation and Transportation 145 or a Federal Aviation Administration Powerplant License.  
**Note:** This class meets 6 hours per day, 5 days per week. The completion of Aviation and Transportation 146 qualifies students for industry employment as maintenance and overhaul technicians and prepares them practically and theoretically to successfully obtain the Federal Aviation Administration Airframe Rating.  
**Transfer credit:** CSU

147  
**HELICOPTER MAINTENANCE**  
4 Units  
Aviation and Transportation 147 provides instruction in rotary wing aerodynamics, main rotors, tail rotors, transmission and drive components. Field maintenance and servicing procedures are covered along with rotor system track and balancing. Lecture 4 hours, laboratory 2 hours.  
**Prerequisite:** Aviation and Transportation 143 or a powerplant or airframe license.

150  
**AIRCRAFT STRUCTURES**  
4-8 Units  
Aviation and Transportation 150 is a course to prepare the student for employment in the aircraft industry in the area of structural construction and repair. Lecture 12 hours, laboratory 18 hours.  
**Prerequisite:** None.

151  
**INFLIGHT TRAVEL SAFETY**  
1 Unit  
Aviation and Transportation 151 surveys travel safety precautions and federal regulations pertaining to air travel. Course topics include passenger psychology, ground and inflight safety equipment, anti-terrorism and hijacking concerns. Lecture 1 hour.  
**Recommended preparation:** Health 102.

102  
**GENERAL BIOLOGY**  
5 Units  
Biology 102 provides a continuation of the study of fundamental biological processes introduced in Biology 101. The course begins with developmental processes, followed by anatomy and physiology of plants and the anatomy and physiology of animals. The final unit covers evolutionary biology, systematics, chemosynthetic theories of the origin of life, population biology, and ecological principles. Laboratory is essentially a separate course involving a student research project on Drosophila genetics, developmental biology labs, and an extensive survey of biodiversity. Lecture 3 hours, discussion 2 hours, laboratory 4 hours.  
**Prerequisite:** Biology 101 and Chemistry 101.  
**Transfer credit:** CSU, UC, USC (CAN BIOL 6) (Biology 101 & 102 CAN BIOL SEQ A)

103  
**MOLECULAR BIOLOGY AND GENETICS**  
4 Units  
Biology 103 is an extension of the study of molecular biology, cell biology and genetics introduced in Biology 101/102. This course examines the structure and function of nucleic acids and proteins in the living cell, as well as how these molecules are studied and manipulated in the laboratory. Topics include regulation of gene expression, recombinant DNA technology, chromosome mapping and viral and prokaryotic genetics. Lecture 4 hours.  
**Prerequisite:** Biology 101 and Chemistry 105 (Chemistry 105 may be taken concurrently).  
**Transfer credit:** CSU, UC

112  
**MICROBIOLOGY**  
4 Units  
Biology 112 is a study of life using microorganisms (algae, bacteria, molds, protozoa, viruses, and yeasts) as prototypes. The course includes microbial biochemistry, genetics, cellular and ultra-cellular activities, applied uses, and pathogenicity of these forms of life. In the laboratory students also identify one unknown microbial organism. Lecture 3 hours, laboratory 4 hours.  
**Prerequisite:** Chemistry 101 or 110 or 120.  
**Transfer credit:** CSU, UC, USC (CAN BIOL 14)
115 HUMAN BIOLOGY
4 Units
Biology 115 is an introductory course covering biological principles as they apply to the human body. The central theme is the structure and function of the human organism. Topics covered include: human evolution, the human species in the environment, cells, tissues, the major body systems, heredity, and the major human conditions and diseases.

A weekly laboratory allows students the opportunity to gain practical experience in the techniques necessary to study the health sciences. Lecture 3 hours, discussion 1 hour, laboratory 2 hours. **Recommended preparation:** High school biology. **Note:** This course may not be taken for credit by students who have completed Biology 120 or 121. **Transfer credit:** CSU, UC, USC

118 PRINCIPLES OF BIOLOGY
3 Units
Biology 118 is a television survey course covering the major concepts in biological science. The emphasis is on the dynamic processes and inter-relationships occurring in the living world. This course is designed for students majoring in fields other than the biological sciences. Lecture and discussion, 3 hours. **Prerequisite:** None. **Note:** This course may not be taken for credit by students who have completed Biology 122.

120 HUMAN ANATOMY
5 Units
Biology 120 comprehensively covers the systems of the human body. The laboratory includes the study of tissues using the microscope and a detailed study of the human skeleton. Dissections on the cat muscles and blood vessels, sheep brain, and cow eye, as well as the human cadaver, are included to illustrate comparative parts of human anatomy. Lecture 3 hours, discussion 2 hours, laboratory 4 hours. **Recommended preparation:** Biology 115 is strongly recommended for students with a limited background in the biological sciences. **Note:** Primarily for nursing, physical education, and health science majors. **Transfer credit:** CSU, UC, USC (CAN BIOL 10) (BIOL120 & 121 CAN BIOL SEQ B)

121 INTRODUCTION TO PHYSIOLOGY
4 Units
Biology 121 studies the functions of the systems of the human body. Course format includes lecture and extensive lab activity including EEG, EKG, spirometry, urinalysis, blood analysis, etc. Physiology is required for nursing students and is elective for others. Lecture 3 hours, discussion 1 hour, laboratory 2 hours. **Prerequisite:** Biology 120 and Chemistry 101, 110, or 120. **Transfer credit:** CSU, UC, USC (CAN BIOL 12) (BIOL120 & 121 CAN BIOL SEQ B)

122 INTRODUCTION TO BIOLOGY
4 Units
Biology 122 is designed to give an overview of the biological sphere of life and an elementary working knowledge of the fields studied. It takes a liberalized approach to the study of five kingdoms of living organisms. The emphasis is on the dynamic processes and functional inter-relationships between which shape and influence the world. The problems facing the planet today are emphasized. Primarily for students majoring in fields other than the biological sciences. Lecture 3 hours, discussion 1 hour, laboratory 2 hours. **Recommended preparation:** Eligibility for English 120 is strongly recommended. **Note:** This course allows only 1 unit of credit for those students completing Biology 118. **Transfer credit:** CSU, UC, USC

123 EVOLUTION
3 Units
Biology 123 deals with the emergence and development of life. Evidences for and against the theory of evolution are discussed with topics including mechanisms and theories of evolution, biogeography, origins of life (including extra terrestrial possibilities), genetics, the emergence of primates and humans, cooperation, competition, racism, and war. The future of evolution, humans, and civilization concludes the course. Lecture 3 hours. **Prerequisite:** None. **Transfer credit:** CSU, UC, USC

125 MARINE BIOLOGY
3 Units
Biology 125 is an introduction to biology offering a general survey of the ecosystems and diversity of life in the marine environment. The course includes an introduction to the sciences of geological, chemical and physical oceanography as the basis to understand the environment where marine organisms exist. A comparative approach is used to learn about the physiological and anatomical adaptations of the different marine organisms to their environment. Aspects of the three major areas of biology, evolutionary, cell and molecular theory, are addressed throughout the course. Lecture 3 hours. **Prerequisite:** None. **Transfer credit:** CSU, UC, USC

126 FIELD AND LABORATORY INVESTIGATIONS IN MARINE BIOLOGY
1 Unit
Biology 126 is an introductory science laboratory offering a general survey of the diversity of life in the marine environment and an introduction to some of its major ecosystems. The laboratory exercises utilize the comparative method in order to study the anatomy, physiology and evolution of some of the major phyla of marine organisms. This course requires the participation in at least four field trips. Field trips introduce the student to the ecology of marine ecosystems. Laboratory/field work 3 hours. Field trips totaling a minimum of 9 hours are required. **Prerequisite:** Biology 125. (Biology 125 may be taken concurrently.) **Note:** Field trips require student contribution for meals and transportation. **Transfer credit:** CSU, UC, USC

127 ECOLOGY AND CONSERVATION
3 Units
Biology 127 is an introduction to organismic, population, and community ecology with emphasis on the interaction between organisms and their environment with respect to energy flow and ecosystems dynamics. The course also introduces the student to the various aspects of natural resource management including forestry practices, wildlife management, hydrology, soils, and energy resources. Lecture 3 hours. **Prerequisite:** None. **Transfer credit:** CSU, UC, USC
128
ECOLOGY AND CONSERVATION
LABORATORY
1 Unit

Biology 128 is offered as a practical supplement to Biology 127. Ecology and conservation allows the student to apply concepts and theory presented in Biology 127 to practical field situations. Students learn environmental monitoring and analysis techniques along with research data analysis and interpretation. Laboratory 3 hours. Prerequisite: Biology 127 (Biology 127 may be taken concurrently). Transfer credit: CSU, UC, USC

129
DIRECTED STUDIES IN MARINE
ECOLOGY
(See Note)

Biology 129 is a course emphasizing individual investigation of the natural marine environment through field and laboratory studies. Students examine the inter-relationship between marine organisms and their habitats by special projects dealing with a particular problem. Library research, a scientific paper, and an oral presentation of the directed studies are an integral part of the course. Field studies investigate various localities during different semesters; such as, Baja California, the Channel Islands, the northern California coast, and local marine habitats. 3-9 hours field and laboratory study. Prerequisite: Biology 125 or Biology 101 and 102. Note: Three hours are required for each unit earned. The course may be taken for one, two, or three units according to the schedule. The course may be repeated for a maximum of 6 units. Field trips require student contribution for meals and transportation. Transfer credit: CSU, UC, USC

130
NATURAL HISTORY OF SOUTHERN
CALIFORNIA
4 Units

Biology 130 is the ecological studies of alpine to lower desert and aquatic communities. Emphasis is placed on laboratory investigation of the types, distribution, and diversity of plants and animals within each community. Environmental factors such as climate, soils, and landforms are integrated with community studies. Lab studies are reinforced through two overnight field trips to desert or mountain areas. (See current class schedule.) Lecture 3 hours, laboratory 3 hours. Recommended preparation: A course in either high school or college biology or equivalent. Note: Overnight field trips will require student contribution for meals and transportation. Transfer credit: CSU, UC, USC

131
NATURAL HISTORY FIELD STUDIES
1-3 Units

Biology 131 offers individual and group investigation of the biological environment and the impact of human activities upon it. The course format includes discussion sessions as well as field studies. Students examine the inter-relationship between biological organisms and their habitats by special projects dealing with a particular problem. Library research, a scientific paper, and/or an oral presentation of the directed studies may be a part of the course. Field studies investigate a variety of world localities. The cost of land and air arrangements is borne by each student, and are kept to a minimum while still providing clean and comfortable lodging. 3-9 hours field and laboratory study. Prerequisite: A biology or ecology course in high school or college, or the equivalent. Note: Three hours are required for each unit earned. The course may be taken for one, two, or three units according to the schedule. This course may be taken 4 times; a maximum of 6 units may be earned. Transfer credit: CSU

132
INTRODUCTION TO MARINE
SCIENCE
3 Units

Biology 132 serves as an introduction to oceanography, marine biology, and the related marine technologies. Topics covered include sea floor topography and geological processes, water circulation, and the diversity of marine organisms and their physiological and ecological adaptations to the marine technologies dealing with the development and utilization of marine biological and geological resources. Lecture 3 hours. Prerequisite: None. Transfer credit: CSU, UC, USC

135
INTRODUCTION TO BOTANY
4 Units

Biology 135 is an introductory course covering biological principles as they apply to the plant world. The central theme is the importance of plant structure and variation in life on earth. Topics covered include plants and human affairs, plant cells, photosynthesis, the role of plants in ecological cycles, and a survey of the earth’s plant forms. Lecture 3 hours, discussion 1 hour, laboratory 2 hours. Recommended preparation: High school biology. Transfer credit: CSU, UC, USC

137
FIELD BOTANY
5 Units

Biology 137 is a study of the plant materials and the ecology of the plant communities of Southern California. Two weekend field trips are included. Lecture 3 hours, discussion 2 hours, laboratory 4 hours. Prerequisite: None. Transfer credit: CSU

138
HORTICULTURE
3 Units

Biology 138 is a study of the names and requirements of exotic and native plants used in ornamental horticulture in the Los Angeles area. Basic principles and practices in propagation, pruning, diseases, and insect control as well as extensive laboratory work with living specimens in the greenhouse are elements included in this course. Field trips to local nurseries and parks are planned. Lecture 2 hours, discussion 1 hour, laboratory 1 hour. Prerequisite: None. Transfer credit: CSU

139
PLANT PROPAGATION
3 Units

Biology 139 is the study of growing plants from seed and by asexual methods for commercial or home use. Propagation methods, structures, plant pests and diseases, and control of the plants being propagated are discussed. Laboratory work in seeding, transplanting, cutting, budding, and grafting are done by the student. Lecture 2 hours, discussion 1 hour, laboratory 2 hours. Prerequisite: None. Transfer credit: CSU

145
BIOLOGY OF BIRDS
2 Units

Biology 145 is a nine-week introductory course dealing with the identification, classification, ecology, anatomy, and behavior of birds. Course study emphasizes the natural history of local birds as well as representative bird groups from around the world. Lecture 3 hours, laboratory; see Note. Prerequisite: None. Note: Several laboratory sessions are required with each session lasting five hours. (See current schedule of classes.) Transfer credit: CSU
146 MARINE MAMMALS
2 Units
Biology 146 is an eight-week introductory course dealing with the identification, classification, ecology, anatomy, and behavior of marine mammals. Course study emphasizes the natural history of local marine mammal species as well as representative marine mammal groups from the oceans of the world. Lecture 3 hours, laboratory, see Note. Prerequisite: None. Note: One field session lasting three days and two field sessions lasting one day each are required. (See current schedule of classes for location and dates of field session.) Transfer credit: CSU

BOTANY,
See Biology 135, 137

BUSINESS DIVISION
Accounting, See p. 88
Advertising, See Business Administration 166
Business Administration, See p. 108
Business Office Technology, See p. 111
Computer Science/Information Systems, See p. 119
Data Processing, See Computer Science/Information Systems
Distributive Education, See Business Administration
English, Business, See Business Administration 106; Business Office Technology 102, 103
Entrepreneurship, See Business Administration 158
Finance, See Business Administration 170, 175, 176, 180
Internship, See p. 160
Law, Business, See Business Administration 120, 125
Management, See Business Administration
Marketing, See Business Administration
Mathematics, See Mathematics 111 and 112, Business Office Technology 110
Printing Business Materials, See Computer Science/Information Systems 129
Real Estate, See p. 191
Secretarial Studies, See Business Office Technology
Word Processing, See Business Office Technology

BUSINESS
Many of the Business courses were renumbered in Fall, 1997. Use the following list to find new course numbers.

BUSINESS ADMINISTRATION (BUSAD)
New Old
BUSAD 101 ............ Business General 110
BUSAD 106 .......... Business General 110
BUSAD 110 ............ Business General 110
BUSAD 120 ............ Business General 110
BUSAD 125 ............ Business General 110
BUSAD 131 .......... Finance 101
BUSAD 132 .......... Finance 110
BUSAD 134 .......... Finance 140
BUSAD 135 .......... Finance 150
BUSAD 136 .......... Finance 161
BUSAD 138 .......... Finance 200
BUSAD 141 .......... Management 101
BUSAD 142 .......... Management 110
BUSAD 144 .......... Management 115
BUSAD 146 .......... Management 120
BUSAD 148 .......... Management 130
BUSAD 149 .......... Management 135
BUSAD 151 ............ Management 145
BUSAD 152 .......... Management 145
BUSAD 154 .......... Management 155
BUSAD 156 .......... Management 160
BUSAD 158 .......... Management 165
BUSAD 162 .......... Marketing 105
BUSAD 164 .......... Marketing 112
BUSAD 166 .......... Marketing 120
BUSAD 168 .......... Marketing 125
BUSAD 170 ............ Management 160
BUSAD 175 ............ Management 160
BUSAD 176 ............ Management 160
BUSAD 180 ............ Management 160

BUSINESS OFFICE TECHNOLOGY (BUSOT)
New Old
BUSOT 101 ............ Office Administration 101
BUSOT 102 ............ Business General 101
BUSOT 103 ............ Business General 105
BUSOT 104 ............ Office Administration 105
BUSOT 106 ............ Business General 140
BUSOT 110 .......... Business General 135
BUSOT 120 .......... Business General 150
BUSOT 125 .......... Office Administration 120
BUSOT 130 .......... Office Administration 140
BUSOT 155 .......... Office Administration 110
BUSOT 162 .......... Office Administration 162
BUSOT 165 .......... Office Administration 165
BUSOT 182 .......... Office Administration 182
BUSOT 185 .......... Office Administration 185
BUSOT 190 .......... Office Administration 190
BUSOT 195 .......... Office Administration 195
BUSOT 200 .......... Office Administration 201
BUSOT 205 .......... Office Administration 205
BUSOT 210 .......... Office Administration 210
BUSOT 230 .......... Office Administration 230
BUSOT 254 .......... Office Administration 254
BUSOT 256 .......... Office Administration 256

BUSINESS ADMINISTRATION
101 INTRODUCTION TO BUSINESS
3 Units
Business Administration 101 orients students to the field of business, introducing, in survey form, the functions, characteristics, organization, and problems of business. The course serves as a foundation for later specialized study, and directs the thinking of students to possible careers. Lecture 3 hours. Prerequisite: None. Transfer credit: CSU, UC

106 WRITTEN BUSINESS COMMUNICATIONS
(Formerly Business General 110)
3 Units
Business Administration 106 is a writing course for students completing programs in business. The course prepares students to accomplish tasks and solve problems through the written word. The mechanics, strategies, and processes of technical writing, as well as creative and critical thinking skills, are applied to a variety of tasks which simulate typical events in business. Techniques are covered for creating effective business letters, information summaries, proposals, and reports, including references and research sources and appropriate styles and formats. In addition, original essays responding to a review of rhetorical works in the fields of business and economics are prepared. The impact of organizational procedures on business communications is explored, and the automated technology which facilitates this communication is applied to a variety of tasks common to the business organization. Lecture 4 hours. Prerequisite: Business Office Technology 109 and one of the following:
1. Eligibility for English 120, or
2. Eligibility for ESL 151, or
3. Successful completion of Business Office Technology 102. Recommended preparation: Keyboarding skill at the rate of 30 w.p.m. Transfer credit: CSU
110  
**HUMAN RESOURCES IN BUSINESS**  
*3 Units*  
Business Administration 110 aids future employees, as well as present employees, in understanding and utilizing human relations concepts as they apply to the business environment. Topics cover such areas as morale, personal efficiency, personality, motivation, communication, decision making, job adjustment and leadership. Lecture 3 hours.  
*Prerequisite:* None.  
*Transfer credit:* CSU

120  
**BUSINESS LAW I**  
*3 Units*  
Business Administration 120 is a study of law as it influences business conduct, including growth of law and recent changes, especially the new Uniform Commercial Code, and principles of contracts, sales, and agency. Lecture 3 hours.  
*Prerequisite:* Business Administration 125 or equivalent.  
*Transfer credit:* CSU, UC, USC (CAN BUS 8)

125  
**BUSINESS LAW II**  
*3 Units*  
Business Administration 125 deals with the law of sales, negotiable instruments, partnerships, corporations, and trade regulation. Lecture 3 hours.  
*Prerequisite:* Business Administration 120 or equivalent.  
*Transfer credit:* CSU, UC, USC

131  
**INTRODUCTION TO FINANCE**  
*Formerly Finance 101*  
*3 Units*  
Business Administration 131 introduces the student to the many financial decisions faced by a modern business, along with the analytical tools and concepts necessary for an evaluation of these decisions. The material is applicable to large corporations, small businesses and nonprofit organizations. Lecture 3 hours.  
*Prerequisite:* None.  
*Note:* One year of accounting is recommended.  
*Transfer credit:* CSU

132  
**FINANCIAL STATEMENT ANALYSIS**  
*Formerly Finance 110*  
*3 Units*  
Business Administration 132 provides a complete understanding of the Income Statement and the Balance Sheet. These financial statements are further analyzed as to components, and ratios are developed to determine the firm’s financial positions. Lecture 3 hours.  
*Prerequisite:* Accounting 101 or equivalent.  
*Transfer credit:* CSU

134  
**INVESTMENTS**  
*Formerly Finance 140*  
*3 Units*  
Business Administration 134 is designed to develop the student’s understanding of the various public investments available, their potential risks and rewards, and the situations in which they are best utilized. Topics include investment principles and objectives, the operation of securities markets, investment banking, and asset selection and allocation. Lecture 3 hours.  
*Prerequisite:* None.  
*Transfer credit:* CSU

135  
**MONEY AND BANKING**  
*Formerly Finance 150*  
*3 Units*  
Business Administration 135 is a course designed to help students secure employment with investment banking houses, commercial banks, finance companies, stock and commodity exchanges, and securities dealers. It is a study of the American monetary system and American financial institutions. The course allows students to obtain a critical understanding of the Federal Reserve structure, monetary and fiscal policy, and the commercial banking process. Lecture 3 hours.  
*Prerequisite:* None.  
*Transfer credit:* CSU

136  
**MONEY MANAGEMENT**  
*Formerly Finance 161*  
*3 Units*  
Business Administration 136 covers the basic principles of efficient money management. The fundamentals of financial planning and the control of current financial actions to reach future financial goals are studied, including such topics as providing for major investments, retirement and pension planning, the tax environment, and the effect of new laws and regulations. Lecture 3 hours.  
*Prerequisite:* None.  
*Transfer credit:* CSU

138  
**BUYING AND SELLING A BUSINESS**  
*Formerly Finance 200*  
*Also listed as Real Estate 200*  
*3 Units*  
Business Administration 138 presents all the information necessary to conduct the purchase or sale of a small business. This course focuses on what a real estate agent should know so that he or she could properly list, offer, negotiate and sell a business. The techniques of marketing, financing, financial reporting, taxation, merging and business management are covered in detail. Lecture 3 hours.  
*Prerequisite:* None.  
*Note:* This course may not be taken for credit by students who have completed Real Estate 200.  
*Transfer credit:* CSU

141  
**INTRODUCTION TO MANAGEMENT**  
*Formerly Management 101*  
*3 Units*  
Business Administration 141 introduces the student to the basic managerial functions within an organization, which include planning and decision making, organizing, staffing, directing, leading, and controlling. These functions apply to managers at all levels, from small business to top executive management. Lecture 3 hours.  
*Recommended preparation:* One year of occupational training or equivalent service, industrial or business experience before taking this course.  
*Transfer credit:* CSU

142  
**MANAGEMENT/EMPLOYEE RELATIONS**  
*Formerly Management 110*  
*3 Units*  
Business Administration 142 covers development of human relations climate; patterns, function, and types of leadership, simulation training; organizational levels; staff relationships; and organizational and group dynamics; informal organizations; working with unions; managing change; wage administration and incentives; procedures and work systems; attitudes; and development of participations. Lecture 3 hours.  
*Prerequisite:* None.

144  
**PERSONNEL MANAGEMENT**  
*Formerly Management 115*  
*3 Units*  
Business Administration 144 presents personnel techniques for which supervisors are partially responsible and for which they should have some training in selection, testing, placement, orientation, training, counseling, merit rating, promotion, transfer, and training for responsibility. Lecture 3 hours.  
*Prerequisite:* None.
146 PLANNING AND ORGANIZATION
(Formerly Management 120)
3 Units
Business Administration 146 covers techniques for planning; staffing; organization objectives, and flexibility; functions of directing, control, coordinating, and training; service departments; job descriptions; grievance procedures, and maintaining production. Lecture 3 hours. Prerequisite: None.

148 PRODUCTION AND OPERATIONS MANAGEMENT
(Formerly Management 130)
3 Units
Business Administration 148 presents an overview of production and operations management. It deals primarily with the management of the production of products by manufacturing organizations. The use of computer-based production and inventory planning and control systems is emphasized. Lecture 3 hours. Prerequisite: Computer Science/Information Systems 101 or equivalent.

149 COST CONTROL AND ANALYSIS
(Formerly Management 135)
3 Units
Business Administration 149 covers analysis of cost control in industry and its functions. This course presents the supervisor’s responsibility for the factors in cost control: costs, materials, waste, salvage, quality control, quantity control, and time control. Lecture 3 hours. Prerequisite: None.

151 THEATRE MANAGEMENT
(Also listed as Theatre Arts 151)
3 Units
Business Administration 151 is designed to provide an introduction to economic and managerial aspects of American theatre, especially as they apply to professional resident theatre and nonprofessional community and educational theatre organizations. It is assumed that students have a background in theatre history and production but that they are comparatively untutored in economics and business administration. Lecture 3 hours. Recommended corequisite: Theatre Arts 131. Note: This course may not be taken for credit by students who have completed Theatre Arts 151. Transfer credit: CSU

152 MANAGEMENT COMMUNICATIONS—ORAL
(Formerly Management 145)
3 Units
Business Administration 152 covers planning interpersonal communication, speaking techniques, conducting question-and-answer periods, conference leading on the job, objectives of good presentations, effective use of visuals in oral presentations, interviewing, bridges and barriers to communications, and what to do about rumors. Lecture 3 hours. Recommended preparation: One of the following: Composite of academic background and professional experience; or Eligibility for Business Administration 106 or English 120 or ESL 151 or ESL 155. Transfer credit: CSU

154 ENVIRONMENTAL HAZARDOUS MATERIALS
(Formerly Management 155)
3 Units
Business Administration 154 covers management and supervisory responsibility for hazardous materials and safety in the workplace, compliance with regulatory requirements, and fire and accident prevention. Students are introduced to environmental chemistry and toxicology as applied to the industrial setting, to an overview of federal, state and local regulations and requirements and to the manager’s responsibility for job and safety instruction, informational programs, and the design and implementation of an effective industrial safety program. Lecture 3 hours. Prerequisite: None. Transfer credit: CSU

156 MANAGEMENT CONTROL
(Formerly Management 160)
3 Units
Business Administration 156 emphasizes the basic principles of controls, such as, delegation of responsibility, purpose and objectives of controls, manufacturing costs, quality control, quantity control, production control, control over materials, control over the organization, and control over personnel. Lecture 3 hours. Prerequisite: None. Transfer credit: CSU

158 STARTING AND MANAGING A SMALL BUSINESS
(Formerly Management 165)
3 Units
Business Administration 158 teaches small business start up and small business management. The course includes the role of small business in our free enterprise system, a profile of the successful entrepreneur, and instruction in starting and managing a small business. Some of the topics covered are marketing, budgeting, pricing, staffing, accounting, capital acquisition, principles of management, the business plan, and a survey of the retail, wholesale, service, and manufacturing industries. The course is directly aimed at persons who wish to start their own small business or improve the profitability of their existing small business. Lecture 3 hours. Prerequisite: None.
166 ADVERTISING
(Formerly Marketing 120)
3 Units
Business Administration 166 is an introductory course in the purpose and principles of advertising, including the organization and functions of advertising agencies. Buying motives and the writing of good copy are studied. Radio, television, and outdoor advertising methods and costs are covered. This course is not intended to develop artistic ability, but those who can illustrate their copy will find an opportunity to do so. Courses in advertising art are offered by the Art Department. Lecture 3 hours. Prerequisite: None. Transfer credit: CSU

168 FASHION MERCHANDISING
(Formerly Marketing 125)
(Also listed as Fashion Design Merchandising 168)
3 Units
Business Administration 168 is a study of principles of fashion. It includes a study of fashion retailers, apparel producers, and manufacturers. Lecture 3 hours. Prerequisite: None. Note: This course may not be taken for credit by students who have completed Fashion 125 or Fashion Design Merchandising 168. Transfer credit: CSU

170 INTRODUCTION TO INTERNATIONAL BUSINESS
3 Units
Business Administration 170 is an overview of basic issues with which someone involved in international business must deal. These include deciding on a business organization for foreign operations, establishing banking relationships, raising capital, currency exchange, marketing in a foreign environment, with particular emphasis on Pacific Rim, Western European and South American markets; import-export regulations, and problems with locating manufacturing abroad. Lecture 3 hours. Prerequisite: None. Transfer credit: CSU

175 IMPORT/EXPORT BUSINESS IN THE PACIFIC RIM
3 Units
Business Administration 175 is a project course teaching the real-world process of establishing an import/export business. The student is guided in preparing a business plan for an import/export activity. Each country in the Pacific Rim is discussed in terms of their current business conditions and import/export opportunities. Asia, our largest trading area, is the most successful, fastest growing economic area in the world. The special business cultures and techniques contributing to its success and the success of its firms are presented. A major part of the course is a discussion of the business aspect of the cultural views and practices necessary to do business in these countries. Lecture 3 hours. Prerequisite: None. Note: Students are expected to have a strong background in business and an interest in participating in the global economy. It is recommended that those students without practical business experience first complete Business Administration 101 and 170. Transfer credit: CSU

176 IMPORT/EXPORT WITHIN NAFTA AND LATIN AMERICAN COUNTRIES
3 Units
Business Administration 176 discusses the special issues of doing business with NAFTA countries (Canada and Mexico) and with Latin America. The NAFTA countries are not only geographically the closest countries to the United States but have the most favorable trading conditions. These facts make NAFTA countries strong candidates for establishing an import/export business. Other Latin American countries are also analyzed from the governmental, social, economic, and geographic systems in these business opportunities. A major part of this course is a discussion of the business aspect of the cultural views and practices necessary to do business in the Americas. Lecture 3 hours. Prerequisite: None. Note: Students are expected to have a strong background in business and an interest in participating in the global economy. Practical business experience, especially in international business, is the best background for this course. However, it is recommended that those students without practical business experience first complete Business Administration 101 and 170. Transfer credit: CSU

180 PRINCIPLES OF IMPORTING AND EXPORTING
3 Units
Business Administration 180 prepares students to participate in the global economy through importing and/or exporting activities. Topics presented include ways to locate products to import or export, import/export marketing strategies, import/export pricing and distribution channels, international payment transfers, import/export financing, procedures used in shipping and receiving international goods, and strategies for successful importing and exporting. Lecture 3 hours. Prerequisite: None. Note: Students are expected to have a strong background in business and an interest in participating in the global economy. It is recommended that those students without practical business experience first complete Business Administration 101 and 170. Transfer credit: CSU
102  
**ENGLISH FOR BUSINESS**  
(Formerly Business General 101)  
4 Units  
Business Office Technology 102 is a course designed to help students improve their written communication in English. The course offers a systematic approach to building a foundation in the structure, mechanics, and application of the English language to the business environment by constructing and editing sentences, paragraphs, and documents for logical expression of thought using proper sentence structure, grammar, syntax, punctuation, and business vocabulary. Appropriate computer software is used. Students develop composition skills at progressively complex levels. Lecture 4 hours.  
**Prerequisite:** Business Office Technology 103. (Business Office Technology 103 may be taken concurrently), and one of the following:  
1. Eligibility for English 191, or  
2. Eligibility for ESL 141.  
**Recommended preparation:** Keyboarding skill at the rate of 25 w.p.m. or concurrent enrollment in a keyboarding course.  
**Note:** This course allows one unit of credit for students who have completed English 101, and 2 units of credit for students who have completed English 120 or English 131.

103  
**BUSINESS VOCABULARY DEVELOPMENT**  
(Formerly Business General 105)  
3 Units  
Business Office Technology 103 is designed to develop skill in the acquisition and proper use of English vocabulary used in business communications. Both general and specialized vocabularies specific to business professions are covered. In addition, methods for independent study are explored to promote vocabulary expansion beyond the classroom. Lecture 3 hours.  
**Prerequisite:** Eligibility for ESL 131 or English 189.

104  
**FILING METHODS AND SYSTEMS**  
(Formerly Office Administration 105)  
1 Unit  
Business Office Technology 104 covers principles and procedures for establishment and use of various filing systems. This includes practice in alphabetic, numeric, geographic, and subject filing methods and covers principles and procedures for storage and retrieval, retention, transfer, and disposal of records. Lecture 3 hours.  
**Recommended preparation:** Eligibility for Business Office Technology 102 or English 120.

106  
**ELECTRONIC CALCULATORS**  
(Formerly Business General 140)  
2 Units  
Business Office Technology 106 develops skill in the operation of the ten-key electronic display/printing calculators. Students apply calculating machine skills to actual business problems. Lecture 1½ hours, laboratory 1½ hours.  
**Prerequisite:** None.

110  
**COLLEGIATE BUSINESS MATHEMATICS**  
(Formerly Business General 135)  
3 Units  
Business Office Technology 110 is a complete course in mathematical topics needed for success in modern business. Students concentrate on analyzing word problems by generating and solving appropriate algebraic equations and selecting appropriate mathematical procedures to solve problems arising in complex business situations. Emphasis is on real-world problems in such areas as payroll, cash and trade discounting, simple and compound interest, depreciation, installment purchases, and note and mortgage valuation. This course offers students a solid preparation for entering courses in accounting, retailing and marketing and is a core requirement for Business Office Technology certificate programs. It also increases the student's chances of success on pre-employment mathematics tests. Lecture 3 hours.  
**Prerequisite:** None.

120  
**ABC SHORTHAND**  
(Formerly Business General 150)  
1-3 Units  
Business Office Technology 120 integrates the principles of notetaking with a phonetic system of briefhand for classroom and vocational use. Adaptable for note-making in college classes, offices, business conferences, seminars, interviews, and for research report writing, notetaking should be of interest to (a) all business majors who do not enroll in the secretarial programs, (b) majors in other subject areas where a great deal of notetaking is essential, and (c) business and professional people who must attend conferences and meetings and who prepare reports, speeches, articles, and research papers. Lecture 3 hours.  
**Prerequisite:** Eligibility for Business Office Technology 102 or English 120.

125  
**BEGINNING SHorthand**  
(Formerly Office Administration 120)  
1-5 Units  
Business Office Technology 125 is an introductory course in shorthand covering theory, speed development, and beginning transcription skills. Lecture 5 hours.  
**Prerequisite:** Business Office Technology 205 or equivalent, and eligibility for Business Office Technology 102. (Business Office Technology 205 may be taken concurrently.)  
**Note:** Students who can take dictation at least 60 words a minute should enroll in Business Office Technology 130. This course may be taken 4 times; a maximum of 5 units may be earned.  
**Transfer credit:** CSU

130  
**SHORTHAND SPEED DEVELOPMENT**  
(Formerly Office Administration 140)  
1-2 Units  
Business Office Technology 130 is a course offering shorthand speed development on an individualized basis with dictation ranging from 50 words a minute to 120 words a minute. Lecture 2 hours.  
**Prerequisite:** Business Office Technology 120 (3 units), or Business Office Technology 125 (3 units), or one year of high school shorthand (any recognized method), or equivalent.  
**Note:** This course may be taken 4 times; a maximum of 6 units may be earned.

155  
**MACHINE TRANSCRIPTION-BUSINESS**  
(Formerly Office Administration 110)  
2 Units  
Business Office Technology 155 is a machine transcription course which enables students to transcribe business communications, with emphasis on excellence in typing and proficiency in the use of English skills, such as spelling, grammar, and punctuation. Lecture 1½ hours, laboratory 1½ hours.  
**Prerequisite:** (1) Business Office Technology 205 (3 Units) or equivalent, (2) Business Office Technology 103, and (3) Business Office Technology 254 or equivalent. (Business Office Technology 254 may be taken concurrently.)  
**Recommended preparation:** Business Administration 106.
162 LEGAL OFFICE PROCEDURES  
(Formerly Office Administration 162)  
3 Units  
Business Office Technology 162 is a course offering specialized training in preparation of legal paperwork and forms, development of specialized vocabulary and spelling, familiarization with law office routines, and other legal procedures. Lecture 3 hours. **Prerequisite:** (1) Business Office Technology 210 (3 units) or equivalent; (2) Business Office Technology 101 and 254 or equivalent. (Business Office Technology 254 may be taken concurrently.) **Transfer credit:** CSU

165 MACHINE TRANSCRIPTION—LEGAL  
(Formerly Office Administration 165)  
2 Units  
Business Office Technology 165 is a machine transcription course which enables students to transcribe legal communications and to type legal forms commonly used in legal offices. Emphasis is placed on excellence in typing and proficiency in use of English skills, such as spelling, grammar, and punctuation. Lecture 1½ hours, laboratory 1½ hours. **Prerequisite:** (1) Business Office Technology 210 (3 units) or equivalent; (2) Business Office Technology 103, and (3) Business Office Technology 254 or equivalent; or (4) eligibility for Business Administration 106.

182 MEDICAL TERMINOLOGY  
(Formerly Office Administration 182)  
5 Units  
Business Office Technology 182 is designed to familiarize students interested in the medical field with origin, correct spelling, pronunciation, meaning and current usage of common medical terms and their application to clinical records and reports. Emphasis is placed on the roots, prefixes, suffixes, and word combinations. Lecture 5 hours. **Recommended preparation:** Eligibility for English 120.

185 MEDICAL FRONT OFFICE PROCEDURES  
(Formerly Office Administration 185)  
3 Units  
Business Office Technology 185 is a course offering an introduction to the medical office and concentrating on the medical assistant’s role in the maintenance of a professional and efficient medical office, including career guidelines and professional qualifications; public relations; courteous and effective handling of patients, doctors, and co-workers; preparation and care of medical records; correspondence; financial records; insurance; and general management of a medical facility. Training is applicable in offices of physicians, medical hospitals and clinics, dental and mediolegal agencies and government-sponsored medical facilities. Lecture 3 hours. **Prerequisite:** Business Office Technology 182 or equivalent.

190 MACHINE TRANSCRIPTION—MEDICAL I  
(Formerly Office Administration 190)  
2 Units  
Business Office Technology 190 is a machine transcription course which enables students to transcribe medical communications and to type medical forms commonly used in medical offices. Emphasis is placed on excellence in typing and proficiency in use of English skills, such as spelling, grammar, and punctuation. Lecture 1½ hours, laboratory 1½ hours. **Prerequisite:** (1) Business Office Technology 182, (2) Business Office Technology 210 (3 units) or equivalent, (3) Business Office Technology 103, (4) Business Office Technology 254 or equivalent. **Recommended preparation:** Eligibility for Business Administration 106.

195 MACHINE TRANSCRIPTION—MEDICAL II  
(Formerly Office Administration 195)  
2 Units  
Business Office Technology 195 covers machine transcription of case histories, surgical and pathological reports for hospital records, and letters dictated by physicians representing the medical specialties. Lecture 1½ hours, laboratory 1½ hours. **Prerequisite:** Business Office Technology 190 and 215 or equivalent. (Business Office Technology 215 may be taken concurrently.)

200 INTRODUCTION TO COMPUTER KEYBOARDING  
(Formerly Office Administration 201)  
(Also listed as Computer Science/Information Systems 200)  
1 Unit  
Business Office Technology 200 develops the basic skills and keyboard techniques needed to work with a computer keyboard. Accuracy is stressed because a single error may result in inputting or retrieving incorrect information or no information at all. The effect of modifier and function keys unique to the computer keyboard is reviewed. Lecture 1 hour, laboratory 3 hours. (9 weeks) **Recommended preparation:** Eligibility for Business Office Technology 102 or equivalent. **Note:** This course may be taken 3 times; a maximum of 3 units may be earned for Business Office Technology 200 and/or Computer Science/Information Systems 200.

205 COMPUTER KEYBOARDING/TYPING I  
(Formerly Office Administration 205)  
1-3 Units  
Business Office Technology 205 develops the basic skill of keyboard techniques to give the foundation for advanced training in typing. Training is given in the preparation of memorandums, personal letters, business letters, simple tabulation, outlines, and manuscripts. Lecture 2 hours, laboratory 3 hours. **Recommended preparation:** English 191 or ESL 141. (English 191 or ESL 141 may be taken concurrently.) **Note:** Students who can type at least 30 words a minute should enroll in Business Office Technology 210. This course may be taken 3 times; a maximum of 3 units may be earned. **Transfer credit:** CSU

206 MACINTOSH BASICS  
1 Unit  
Business Office Technology 206 provides students with a basic introduction to the Macintosh Operating System. Topics covered include the skills necessary for managing the desktop, using the mouse and pull-down menus, creating and manipulating folders, files, and windows, and other standard operations used in every Macintosh application. Lecture 2 hours, laboratory 1 hour. (9 weeks) **Prerequisite:** None.
MOUS Preparation Certificates

GCC MOUS
18-Week Certificates

Option 1 (12.5 Units)
- 4 Core 1 Expert
- 18 Weeks—CORE
  BUSOT 260—Word, Excel, Access, PowerPoint
  BUSOT 200—Kbdg I
  BUSOT 271—Excel II
  BUSOT 230—Kbdg Speed
  CSIS 208—Win Basics
- 1st 9 Weeks—CORE
  BUSOT 260—Word, Excel, Access, PowerPoint
- 2nd 9 Weeks—EXPERT
  BUSOT 265—Word I
  BUSOT 270—Excel I
  BUSOT 275—Access I
  BUSOT 280—PPT I
  AND
  BUSOT 200—Kbdg I
  CSIS 209—Adv Windows

Option 2 (10 Units)
- 4 Core
- 18 Weeks—CORE
  BUSOT 260—Word, Excel, Access, PowerPoint
  BUSOT 200—Kbdg I
  BUSOT 271—Excel II
  BUSOT 230—Kbdg Speed
  CSIS 208—Win Basics
- 1st 9 Weeks—CORE
  BUSOT 260—Word, Excel, Access, PowerPoint
- 2nd 9 Weeks—EXPERT
  BUSOT 266—Word II
  BUSOT 271—Excel II
  BUSOT 230—Kbdg Speed
  CSIS 209—Adv Windows

Option 3 (12 Units)
- 2 Core
- 1st 9 Weeks—CORE
  BUSOT 260—Word, Excel, Access, PowerPoint
  BUSOT 265—Word I
  BUSOT 270—Excel I
  BUSOT 275—Access I
  BUSOT 280—PPT I
  AND
  BUSOT 200—Kbdg I
  CSIS 208—Win Basics
  CSIS 209—Adv Windows
- 2nd 9 Weeks—EXPERT
  BUSOT 266—Word II
  BUSOT 271—Excel II
  BUSOT 230—Kbdg Speed
  CSIS 209—Adv Windows

Option 4 (10.5 Units)
- Word Core and Expert
- 1st 9 Weeks—CORE
  BUSOT 260—Word, Excel, Access, PowerPoint
  BUSOT 265—Word I
  BUSOT 270—Excel I
  BUSOT 275—Access I
  BUSOT 280—PPT I
  AND
  BUSOT 200—Kbdg I
  CSIS 208—Win Basics
- 2nd 9 Weeks—EXPERT
  BUSOT 266—Word II
  BUSOT 271—Excel II
  BUSOT 230—Kbdg Speed
  CSIS 209—Adv Windows

Option 5 (10.5 Units)
- Excel Core and Expert
- 1st 9 Weeks—CORE
  BUSOT 260—Word, Excel, Access, PowerPoint
  BUSOT 265—Word I
  BUSOT 270—Excel I
  BUSOT 275—Access I
  BUSOT 280—PPT I
  AND
  BUSOT 200—Kbdg I
  CSIS 208—Win Basics
- 2nd 9 Weeks—EXPERT
  BUSOT 271—Excel II
  BUSOT 230—Kbdg Speed
  CSIS 209—Adv Windows

Option 6 (10.5 Units)
- Access Core and Expert
- 1st 9 Weeks—CORE
  BUSOT 260—Word, Excel, Access, PowerPoint
  BUSOT 265—Word I
  BUSOT 270—Excel I
  BUSOT 275—Access I
  BUSOT 280—PPT I
  AND
  BUSOT 200—Kbdg I
  CSIS 208—Win Basics
- 2nd 9 Weeks—EXPERT
  BUSOT 271—Excel II
  BUSOT 230—Kbdg Speed
  CSIS 209—Adv Windows

Option 7 (10.5 Units)
- PowerPoint Core and Expert
- 1st 9 Weeks—CORE
  BUSOT 260—Word, Excel, Access, PowerPoint
  BUSOT 265—Word I
  BUSOT 270—Excel I
  BUSOT 275—Access I
  BUSOT 280—PPT I
  AND
  BUSOT 200—Kbdg I
  CSIS 208—Win Basics
- 2nd 9 Weeks—EXPERT
  BUSOT 271—Excel II
  BUSOT 230—Kbdg Speed
  CSIS 209—Adv Windows

See page 77 for MOUS Preparation Certificates
208 WINDOWS BASICS
1 Unit
Business Office Technology 208 provides students with a basic introduction to the Windows environment. Topics covered include the skills necessary to manage the desktop, to use the mouse and pull-down menus, to create and manipulate folders, files, windows, and perform other standard Windows operations, and to perform simple internet searches. Lecture 2 hours, laboratory 1 hour. (9 weeks). Prerequisite: None. Note: This course may be taken 4 times using different operating systems; maximum of 4 units may be earned.

209 ADVANCED WINDOWS
1 Unit
Business Office Technology 209 reviews the fundamental skills taught in Business Office Technology 208 and continues with more advanced features. Topics covered include modifying the desktop work environment, customizing with control panel, and advanced file and document management. Lecture 2 hours, laboratory 1 hour. Prerequisite: Business Office Technology 208 or Computer Science/Information Systems 208 or equivalent. Recommended preparation: Knowledge of computer keyboarding. Note: This course may be taken 4 times using different operating systems; a maximum of 4 units may be earned.

210 COMPUTER KEYBOARDING/ TYPING II
(Formerly Office Administration 210)
1-3 Units
Business Office Technology 210 is a continuation of Business Office Technology 205, providing refinement and development of technique with increased emphasis on accuracy and speed. The course provides a detailed study of business letters, special office forms, tabulated reports, and manuscripts. Lecture 2 hours, laboratory 3 hours. Prerequisite: Business Office Technology 205 (3 units) or equivalent. Recommended preparation: Eligibility for one of the following: Business Office Technology 102 or English 120. Note: This course may be taken 3 times; a maximum of 3 units may be earned. Transfer credit: CSU

230 COMPUTER KEYBOARDING/ TYPING SPEED DEVELOPMENT
(Formerly Office Administration 230)
1-2 Units
Business Office Technology 230 is designed to provide intensive training and practice in building typewriting speed and control. The student is allowed to pursue individual goals. Lecture 1 1/2 hours, laboratory 1 1/2 hours. Prerequisite: Business Office Technology 205 (3 units) or equivalent. Note: This course may be taken 4 times; a maximum of 6 units may be earned. Concurrent enrollment in Business Office Technology 210 and 215 is permissible if the student needs additional speed and/or accuracy practice.

254 WORD PROCESSING I
(Formerly Office Administration 254)
3 Units
Business Office Technology 254 enables students to develop competency in operating a microcomputer using word processing software. This is an introductory course that involves learning basic operating system commands, along with creating, editing, printing, and storing simple documents. It also includes learning routine formatting and text editing features such as search and replace, merge, sort, headers and footers, redline and strikeout, footnotes and endnotes, etc. Lecture 3 hours, laboratory 2 hours. Prerequisite: Business Office Technology 205 or equivalent and Computer Science/Information Technology 208. Recommended preparation: Eligibility for one of the following: Business Administration 106 or English 120 or ESL 151 and a recommended typing speed of 25 wpm. Note: This course may be taken 3 times using different software or hardware; a maximum of 9 units may be earned.

256 WORD PROCESSING II
(Formerly Office Administration 256)
3 Units
Business Office Technology 256 is a continuation of Business Office Technology 254. This course is designed to prepare students with the advanced skills and knowledge to handle more difficult and challenging tasks. Lecture 3 hours, laboratory 1 hour. Prerequisite: Business Office Technology 254 with same software or equivalent.

MICROSOFT OFFICE USER SPECIALIST

260 WORD, EXCEL, ACCESS, AND POWERPOINT
6 Units
Business Office Technology 260 provides students with the necessary skills and training to create, enhance, manipulate, and manage files in four different software programs. This course prepares students for the Microsoft Office User Specialist (MOUS) core certification exams, which include Word, Excel, Access, and PowerPoint. Some of the topics for this course consist of: creating a document with a table, a chart, and a watermark; working with large worksheets, data tables, amortization schedules, and hyperlinks; designing, maintaining, and querying databases; and creating slide shows with embedded visuals. Lecture 3 hours, laboratory 9 hours. Prerequisite: Business Office Technology 200 and Business Office Technology 285 or equivalent. (BUSOT 200 and BUSOT 285 may be taken concurrently.)

265 MICROSOFT WORD I
4 Units
Business Office Technology 265 provides students with beginning features and functions of Microsoft Office Word, a word processing software program. This course prepares students for the Microsoft Office User Specialist (MOUS) core certification exam in Word. Some of the topics for this course consist of: creating and editing a word document; creating a research paper; using a wizard to create a resume; creating a cover letter with a table; and creating a document with a table, a chart, and a watermark. Lecture 5 hours, laboratory 11 hours. (Nine Weeks) Prerequisite: Business Office Technology 200 and Business Office Technology 285 or equivalent. (BUSOT 200 and BUSOT 285 may be taken concurrently.)
MICROSOFT WORD II  
2.5 Units  
Business Office Technology 266 provides students with advanced features and functions of Microsoft Office Word, a word processing software program. This course prepares students for the Microsoft Office User Specialist (MOUS) certification exam in Word. Some of the topics for this course consist of: creating a professional newsletter in multiple columns with a table; using imported graphics; creating an online form with combo boxes and check boxes; working with tables of contents and indexes; using Visual Basic for Applications (VBA); and generating form letters, mailing labels, and envelopes with mail merge. Lecture 3 hours, and laboratory 6 hours. (Nine weeks) Prerequisite: Business Office Technology 260 or Business Office Technology 265.

MICROSOFT EXCEL I  
4 Units  
Business Office Technology 270 provides students with instruction in beginning features and functions of Microsoft Office Excel, a spreadsheet software program. This course prepares students for the Microsoft Office User Specialist (MOUS) core certification exam in Excel. Some of the topics for this course consist of: creating a worksheet with an embedded chart; working with financial functions, data tables, amortization schedules, and hyperlinks; and creating static and dynamic Web pages. Lecture 5 hours, laboratory 11 hours. (Nine weeks) Prerequisite: Business Office Technology 200 and Business Office Technology 285 or equivalent. (BUSOT 200 and BUSOT 285 may be taken concurrently.)

MICROSOFT EXCEL II  
2.5 Units  
Business Office Technology 271 provides students with advanced features and functions of Microsoft Office Excel, a spreadsheet software program. This course prepares students for the Microsoft Office User Specialist (MOUS) certification exam in Excel. Some of the topics for this course consist of: importing external data; creating data maps, pivot charts and pivot tables; tracking and routing changes; using Visual Basic for Applications (VBA); creating templates; and working with multiple worksheets and workbooks. Lecture 3 hours, laboratory 6 hours. (Nine weeks) Prerequisite: Business Office Technology 260 or Business Office Technology 270.

MICROSOFT ACCESS I  
4 Units  
Business Office Technology 275 provides students with instruction in beginning features and functions of Microsoft Office Access, a database software program. This course prepares students for the Microsoft Office User Specialist (MOUS) core certification exam in Access. Some of the topics for this course consist of: creating a database using design and datasheet views; querying a database; maintaining a database; and creating reports and forms. Lecture 5 hours, laboratory 11 hours. (Nine weeks) Prerequisite: Business Office Technology 200 and Business Office Technology 285 or equivalent. (BUSOT 200 and BUSOT 285 may be taken concurrently.)

MICROSOFT ACCESS II  
2.5 Units  
Business Office Technology 276 provides students with advanced features and functions of Microsoft Office Access, a database software program. This course prepares students for the Microsoft Office User Specialist (MOUS) certification exam in Access. Some of the topics for this course consist of: creating a report using design view; enhancing forms with Object Linking and Embedding (OLE) fields, hyperlinks, and subforms; and customizing forms using Visual Basic for Applications (VBA), charts, and Pivot Table objects. Lecture 3 hours, laboratory 6 hours. Prerequisite: Business Office Technology 260 or Business Office Technology 275.

MICROSOFT POWERPOINT I  
4 Units  
Business Office Technology 280 provides students with instruction in beginning features and functions of Microsoft Office PowerPoint, a presentation software program. This course prepares students for the Microsoft Office User Specialist (MOUS) core certification exam in PowerPoint. Some of the topics for this course consist of: using a design template and auto layouts to create a presentation; using outline view and clip art to create a slide show; using embedded visuals to enhance a slide show; and creating a presentation on the Web. Lecture 5 hours, laboratory 11 hours. Prerequisite: Business Office Technology 260 and Business Office Technology 285 or equivalent. (BUSOT 200 and BUSOT 285 may be taken concurrently.)

MICROSOFT POWERPOINT II  
2.5 Units  
Business Office Technology 281 provides students with advanced features and functions of Microsoft Office PowerPoint, a presentation software program. This course prepares students for the Microsoft Office User Specialist (MOUS) certification exam in PowerPoint. Some of the topics for this course consist of: creating a presentation containing interactive object Linking and Embedding (OLE) documents; creating a self-running presentation using animation effects; and using Visual Basic for Applications (VBA). Lecture 3 hours, laboratory 6 hours. Prerequisite: Business Office Technology 260 or Business Office Technology 270.

CHEMISTRY  

101 GENERAL CHEMISTRY  
5 Units  
Chemistry 101 is a course in fundamental chemistry designed to set forth the most important facts and theories with which chemistry is concerned. Basic laws and chemical calculations are stressed. Lecture 3 hours, discussion 2 hours, laboratory 4 hours. Prerequisite: All three of the following must be satisfied.  
1. Eligibility for English 120 or ESL 151.  
2. One of the following:  
a) Mathematics 101, or  
b) One and one-half years of algebra in high school with a grade of “C” or better.  
3. One of the following:  
a) Chemistry 110 or  
b) One year of high school chemistry (which included regularly scheduled laboratory work) with a grade of “C” or better and a satisfactory composite of test scores for the Mathematics and Chemistry Placement Exams.  

Transfer credit: CSU, UC, USC (CAN CHEM 2) (CHEM 101 & 102 CAN CHEM SEQ A)

102 GENERAL CHEMISTRY  
5 Units  
Chemistry 102 is a continuation of the study of the basic concepts of general chemistry introduced in Chemistry 101, with an emphasis on the theory and technique of qualitative analysis. Lecture 3 hours, discussion 2 hours, laboratory 4 hours. Prerequisite: Chemistry 101. Transfer credit: CSU, UC, USC (CAN CHEM 4) (CHEM 101 & 102 CAN CHEM SEQ A)
103 QUANTITATIVE ANALYSIS
4 Units
Chemistry 103 emphasizes the principles and techniques of quantitative analysis, including calibration, volumetric, gravimetric and spectro-metric procedures. Many illustrative examples are solved. Lecture 2 hours, discussion 2 hours, laboratory 4 hours. Prerequisite: Chemistry 102. Note: Chemistry 103 is required of pre-medical students. Chemistry 103 is recommended for majors in chemistry, physics, pharmacy, mining engineering, geology, metallurgical or petroleum engineering, sanitary and municipal engineering, certain agriculture and public health curricula, and medical technologists. Transfer credit: CSU, UC, USC (CAN CHEM 12)

105 ORGANIC CHEMISTRY
5 Units
Chemistry 105 is an introductory study of the compounds of carbon, including the preparation, properties, and reactions of both aliphatic and aromatic hydrocarbons, halogen derivatives, alcohols, and ethers. Methods of synthesis are stressed, and reaction mechanisms and modern structural principles are introduced. Lecture 3 hours, discussion 2 hours, laboratory 4 hours. Prerequisite: Chemistry 102. Note: Required of pre-medical and pre-dental students; recommended for majors in chemistry, petroleum engineering, sanitary and municipal engineering, and pharmacy; and for certain home economics, public health, and agriculture majors. Transfer credit: CSU, UC, USC

106 ORGANIC CHEMISTRY
5 Units
Chemistry 106 is a study of the preparation, properties, and reactions of aliphatic and aromatic acids, amines, aldehydes, ketones, carbohydrates, heterocyclic compounds, amino acids and proteins. Analysis as well as synthesis of compounds is stressed. Lecture 3 hours, discussion 2 hours, laboratory 4 hours. Prerequisite: Chemistry 105 or an equivalent course with 6 weekly hours of laboratory discussion. Transfer credit: CSU, UC, USC

110 ELEMENTS OF GENERAL CHEMISTRY
5 Units
Chemistry 110 is a basic course in the fundamental principles, laws, and computations of chemistry emphasizing the descriptive phases and including a brief introduction to the chemistry of the carbon compounds. Lecture 4 hours, discussion 1 hour, laboratory 2 hours. Prerequisite: Mathematics 141 or one year of algebra in high school. Transfer credit: CSU, UC, USC

114 THE CHEMICAL ENVIRONMENT
4 Units
Chemistry 114 is a college-level course in chemistry for non-chemistry majors. The term environment is used in the broadest sense, including, for example, foods, drugs, biomolecules, metals, plastics, fertilizers, pesticides, fossil fuels, technology, the earth, water, atmosphere, and pollution. Fundamentals of chemistry including kinetic theory, structure, bonding, reactions, energetics, and nomenclature are developed to provide a framework for interpretation of environmental phenomena. Scientific thinking is analyzed and related to everyday thought. The strengths and limitations of science are considered, with some exposure to social and philosophical implications. Current events in science are emphasized. Elementary mathematical concepts are introduced as needed. Written reports are required. Field trips may be required. Lecture 3 hours, laboratory 3 hours. Prerequisite: None. Transfer credit: CSU, UC, USC

115 CHEMISTRY FUNDAMENTALS FOR NURSES
3 Units
Chemistry 115 is a course in fundamental chemistry for nurses (lecture only) designed to give the basic concepts of chemistry necessary for the nursing profession. Lecture 3 hours. Prerequisite: Concurrent enrollment in Allied Health 101, 103, 105, 107, and 108 if not completed previously, or anticipated acceptance into the Vocational Nursing Program.

120 FUNDAMENTALS OF COLLEGE CHEMISTRY (Inorganic)
5 Units
Chemistry 120 is a course in the fundamentals of chemistry with the emphasis on health science related examples. This course and Chemistry 121 are designed for health science (e.g. nursing), home economics, physical therapy, and other majors that need a year of college chemistry that includes inorganic, organic and biochemistry. Chemistry 120 covers inorganic chemistry. Chemistry 120 does not involve the level of mathematical applications that are found in Chemistry 101. Lecture 4 hours, discussion-laboratory 3 hours. Prerequisite: Mathematics 141 or one year of algebra in high school. Note: This course is not for science majors. At Glendale Community College, Chemistry 120 satisfies the prerequisite for Chemistry 121 only. Transfer credit: CSU, UC, USC (CAN CHEM 6)

121 FUNDAMENTALS OF COLLEGE CHEMISTRY (Organic and Biochemistry)
5 Units
Chemistry 121 is the second half of the year sequence and covers the fundamentals of organic and biochemistry. Lecture 4 hours, discussion-laboratory 3 hours. Prerequisite: Chemistry 120. Note: This course is not for science majors. Transfer credit: CSU, UC, USC

143 INTRODUCTION TO CHEMISTRY
4 Units
Chemistry 143 is an introductory course emphasizing the essential principles of chemistry with a descriptive survey of chemical facts. Reference is made to industrial and practical home chemistry. Lecture 3 hours, discussion 1 hour, laboratory 2 hours. Prerequisite: None. Note: Recommended as a foundation course for either Chemistry 110 or Chemistry 101. This course satisfies the chemistry requirement for many schools of nursing.
130  PARENTING YOUNG CHILDREN  
3 Units  
Child Development 130 assists parents and child development students to gain competency in handling issues related to the growth and development of young children. Students are introduced to the skills and methods of observing and recording behavior, and they assess techniques that encourage self discipline. This course meets the requirements of the current California Community Colleges Home Economics Program Plan for child development students. Lecture 2 hours (9 weeks). **Prerequisite:** None. **Note:** This course may be taken 2 times; a maximum of 2 units may be earned.

133  INTRODUCTION TO EARLY CHILDHOOD EDUCATION  
3 Units  
Child Development 133 introduces the beginning student to Early Childhood Education, the discipline's history, theories, the career ladder within the profession, and educational preparation options. An introductory experience in the campus laboratory school as a classroom aide provides initial exposure to observation, routines, and responsibilities in an early childhood classroom. Particular emphasis is on observation in all contexts, recording tools and assessment methods. The course work does not assume a depth background in developmental theory. The course meets the recommendation of the California Community Colleges Home Economics Program Plan for child development students. Lecture 2 hours, laboratory 3 hours. **Recommended preparation:** Eligibility for English 120 or ESL 151.

135  PRESCHOOL CHILD  
3 Units  
Child Development 135 covers the nature of the growth and development of the child from conception through age five. Other topics include the meaning and value of play, the significance of creative activities, the interpretation of child-adult relationships, standards for wholesome routines, guidance and discipline. Students make observations of infants and preschool age children in the classroom and in nearby child development centers. This course meets the requirements of the California Commission of Teacher Preparation and Licensing for teachers in child development centers, extended day care centers, and other publicly funded children's centers; and, also meets the requirements of the California Administrative Code, Title 22 for teachers and directors of state licensed preschools, day nurseries and infant centers. Lecture 3 hours. **Recommended preparation:** Eligibility for English 120 or ESL 151. **Transfer credit:** CSU, UC, USC

136  THE CHILD FROM FIVE TO TWELVE  
3 Units  
Child Development 136 considers the growth and development of the school-age child emphasizing the interrelationships of mental, physical, and social abilities with the accompanying changes in attitudes and behaviors. Observations of the school age child are included. This course meets the requirements of the California Commission of Teacher Preparation and Licensing for teachers of child development centers, extended day care centers, and other publicly funded children's centers and applies to the California Administrative Code, Title 22 for teachers and directors of state licensed preschools, day nurseries and infant centers. Lecture 3 hours. **Prerequisite:** Child Development 135. **Recommended preparation:** Eligibility for English 120 or ESL 151. **Transfer credit:** CSU, UC, USC

137  SCHOOL AGE CHILDREN IN CHILD CARE  
3 Units  
Child Development 137 examines needs and concerns relating to school-age child care. It provides background in the guidance of children ages 5-12, through knowledge of developmental ages and stages. Students discover the kinds of group programs which exist in the community, and analyze the quality environments and activities which safeguard the growth of children. Lecture 3 hours. **Prerequisite:** Child Development 136. **Transfer credit:** CSU

138  CHILD HEALTH  
3 Units  
Child Development 138 seeks to analyze the responsibilities of the home, the school, and the community for health protection. The characteristics of good health and the recognition of the symptoms of communicable diseases are examined. The habits and attitudes essential for physical and mental health of teachers, parents and children are studied. This course meets the requirements of the California Commission of Teacher Preparation and Licensing for teachers of child development centers, extended day care centers, and other publicly funded children's centers and applies to the California Administrative Code, Title 22 for teachers and directors of state licensed preschools, day nurseries, and infant centers. Lecture 3 hours. **Recommended preparation:** Eligibility for English 120 or ESL 151. **Transfer credit:** CSU

140  PRINCIPLES AND PRACTICES IN PRESCHOOL EDUCATION  
4 Units  
Child Development 140 is an introduction to preschool teaching and the distinctive features, curricula, and traditions of this field. Attention is given to the value of emergent curriculum planning in all areas of the program. Opportunities to observe preschool child behavior and the role of the preschool teacher in various settings are provided. This course meets the requirements of the California Commission on Teacher Credentialing for teachers of child development centers, extended day care centers, and other publicly funded children's centers; and, also meets the requirements of the California Administrative Code, Title 22 for teachers and directors of state licensed preschools, day nurseries, and infant centers. Lecture 3 hours, laboratory 3 hours. **Prerequisite:** Child Development 135. **Recommended preparation:** Eligibility for English 120 or ESL 151. **Transfer credit:** CSU